Xronos Scheduler Advanced User Guide

Release 1.14.1

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Jan 08, 2024

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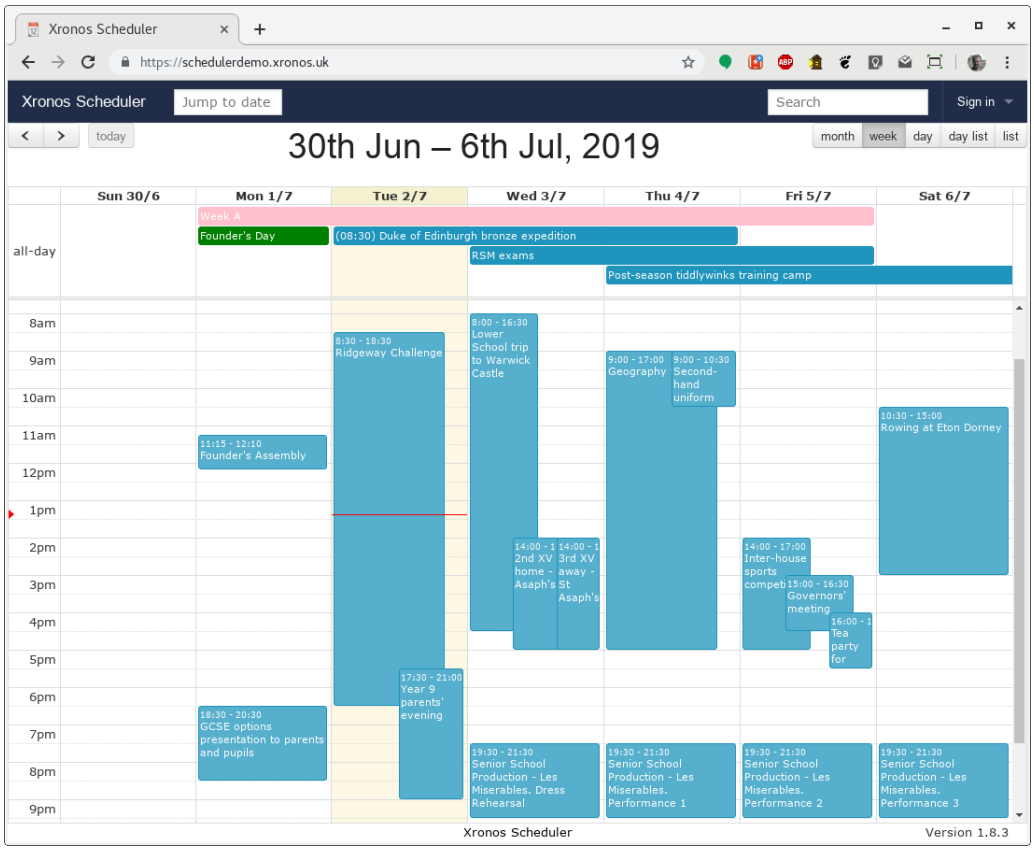

Xronos Scheduler - Advanced User Guide

This section of the user guide is intended for users with special responsibilities - for instance someone responsible for exam invigilation, or who approves the use of various resources.

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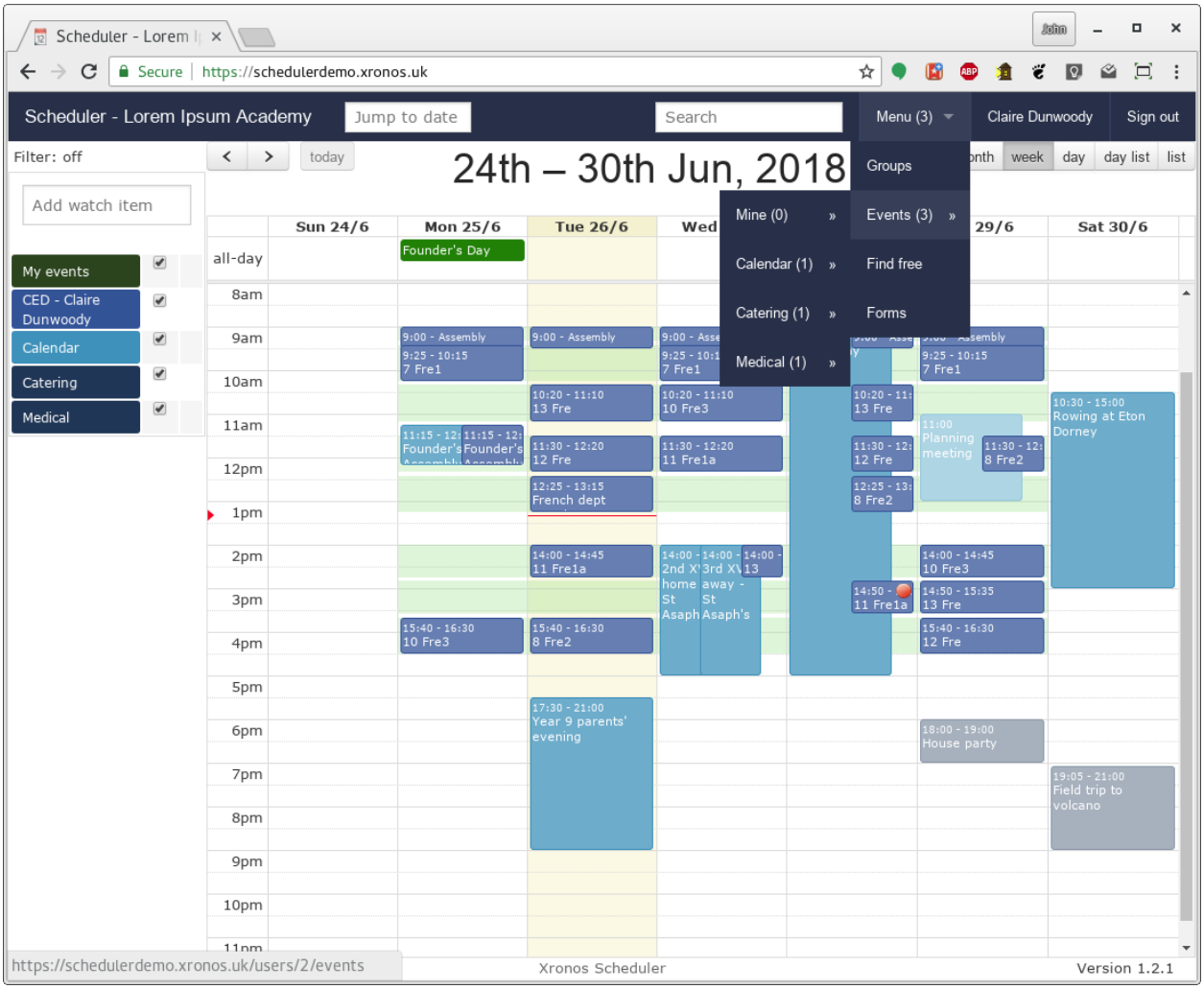
CHAPTER

ONE

EVENT APPROVALS

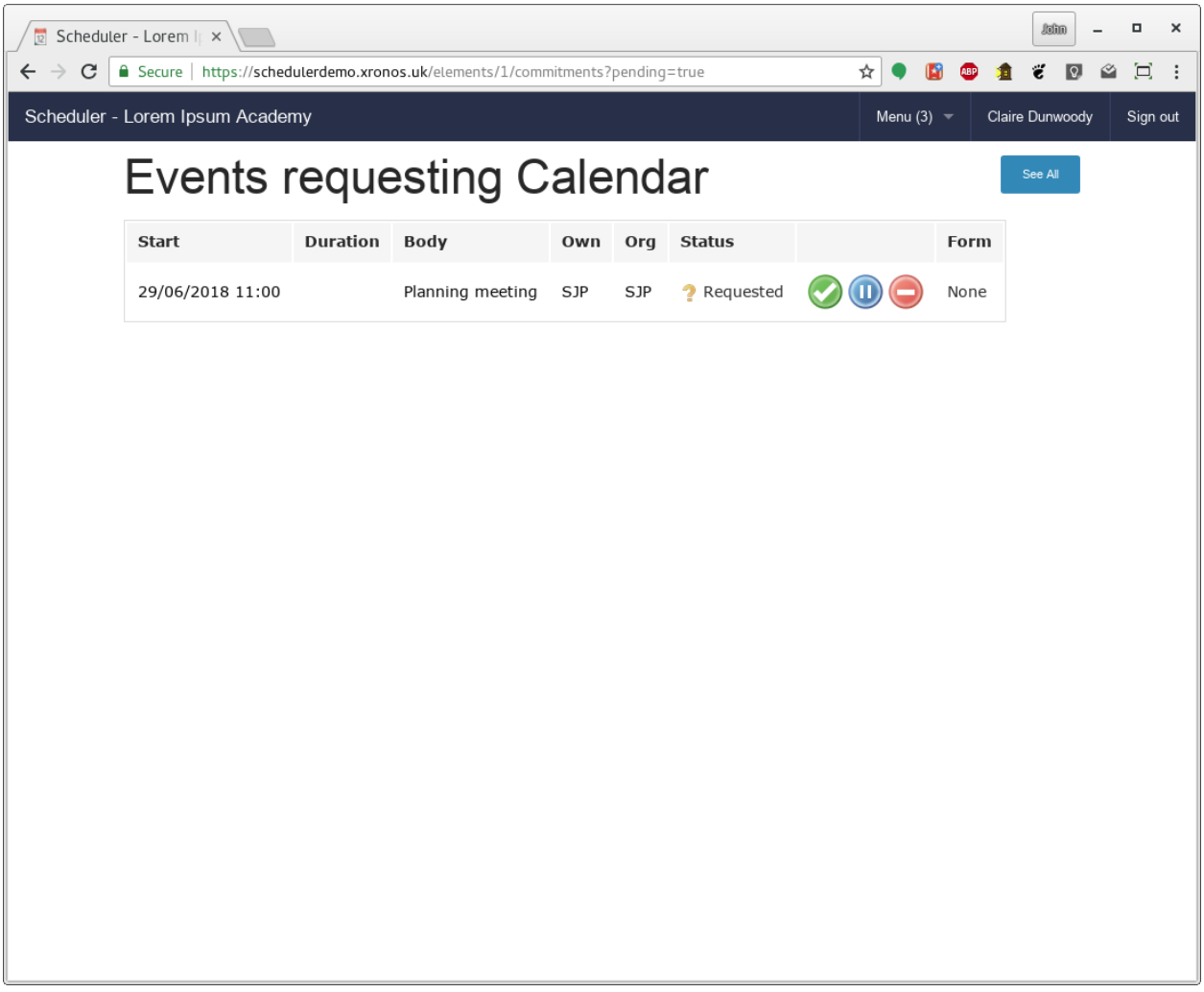
Perhaps a slight misnomer - it's not the events themselves which need approval, it's the events' use of resources. What gets approved is the use of a resource for an event. Where the resource is a special property (like "Public calendar") that approval then causes the event to appear in the public calendar.

The current user (Claire Dunwoody) has 3 items awaiting her attention, meaning she has a "(3)" against her menu, and popping down the menu makes it clear where each of these items is - one for the public calendar, one for catering, and one for medical. (These screenshots follow on directly from the documentation about creating events in the basic user guide.)



1.1 Simple approval

Of the waiting items, the request for an entry in the public calendar is the simplest. Clicking on that menu item produces a listing like this:



There is no form associated with this request, and there are three buttons available to process the request. The green tick means "Approve", The blue pause button means "Noted", whilst the red no-entry sign is for rejection.

If all is well, the event can simply be approved.

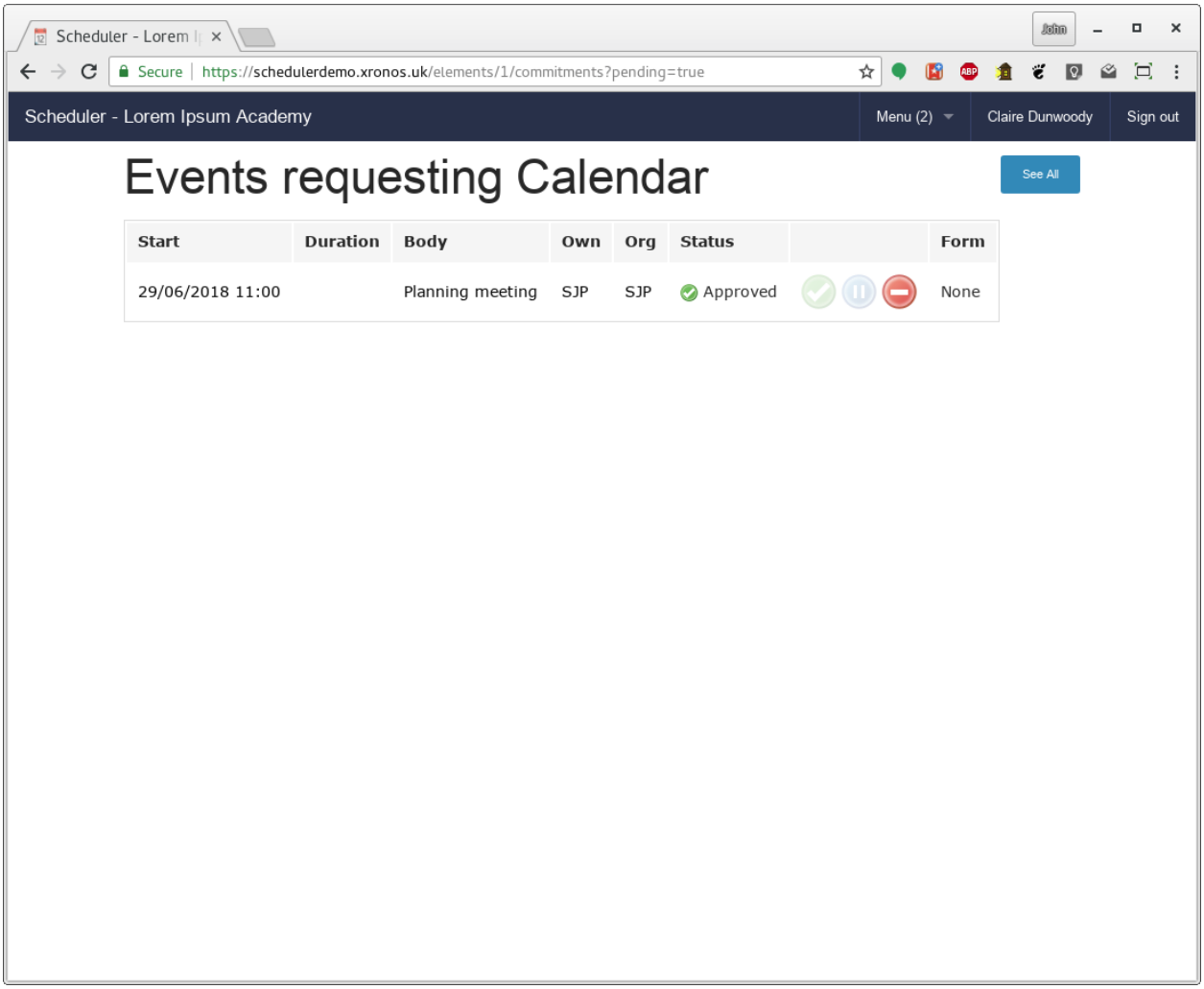
If there is a problem with the proposed event, it can be rejected. Clicking the reject button results in a small dialogue box requesting a reason for the rejection. This will be e-mailed to requester and attached to the event.

The "Noted" button exists for when approval can't be given just yet - either because more information is needed or it's just too soon to be able to say - but the approver wants to make it clear that the request has been seen.

A typical scenario where a status of "Noted" makes sense is when someone wants, for instance, some catering but doesn't know the full details yet. The catering department will want to know about the proposed event as early as possible, but may not be able to give final agreement until the numbers are known. An early request without full details gives the catering department a heads-up that it's going to happen, and they can use the "Noted" button to put it into a state of suspension. Then when the requester fills in the rest of the information they can give their final approval.

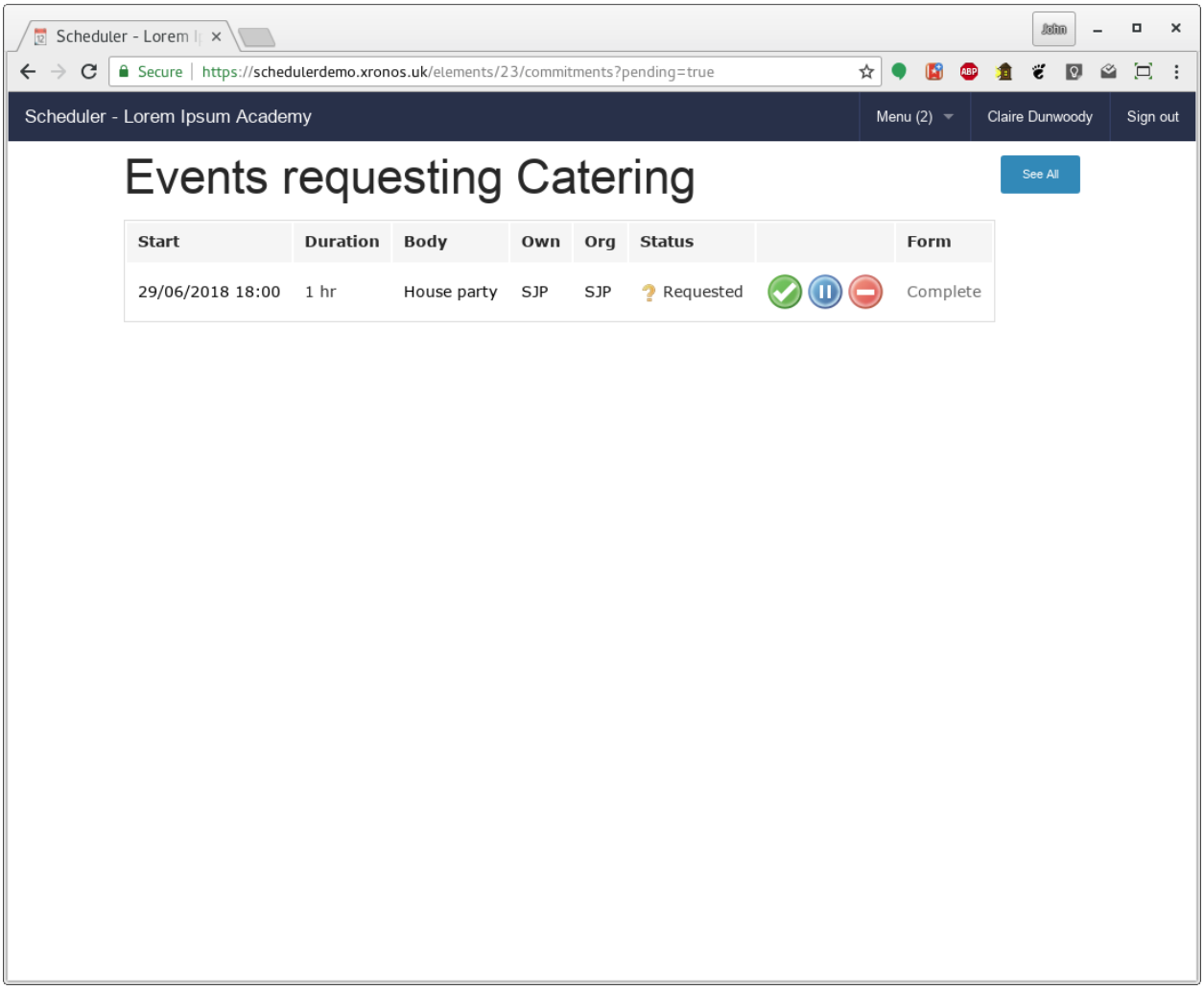
For this request, if we click the green tick it goes into a state of "Approved", and the user's count of pending items

goes down to (2).

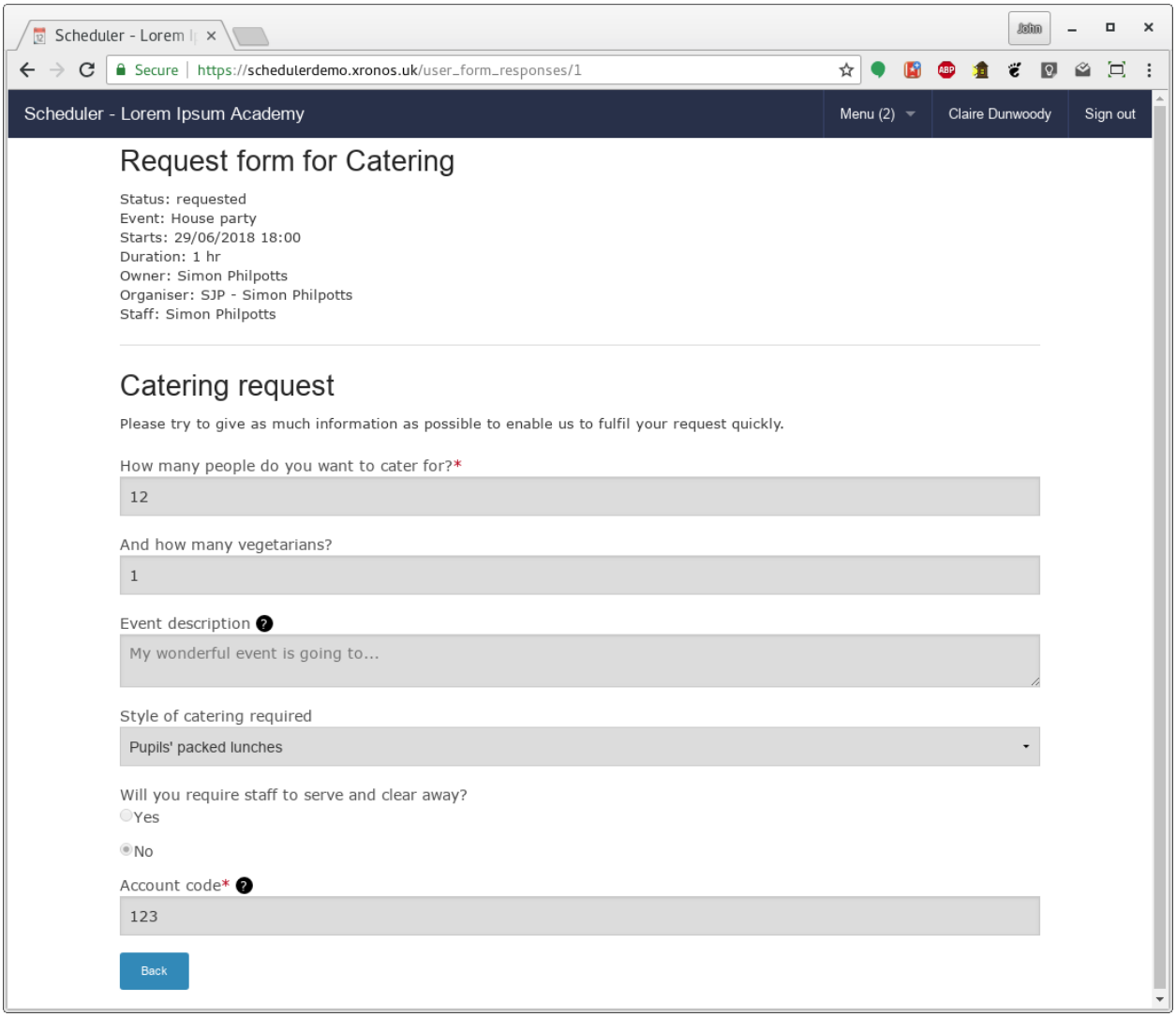


1.2 Request with form

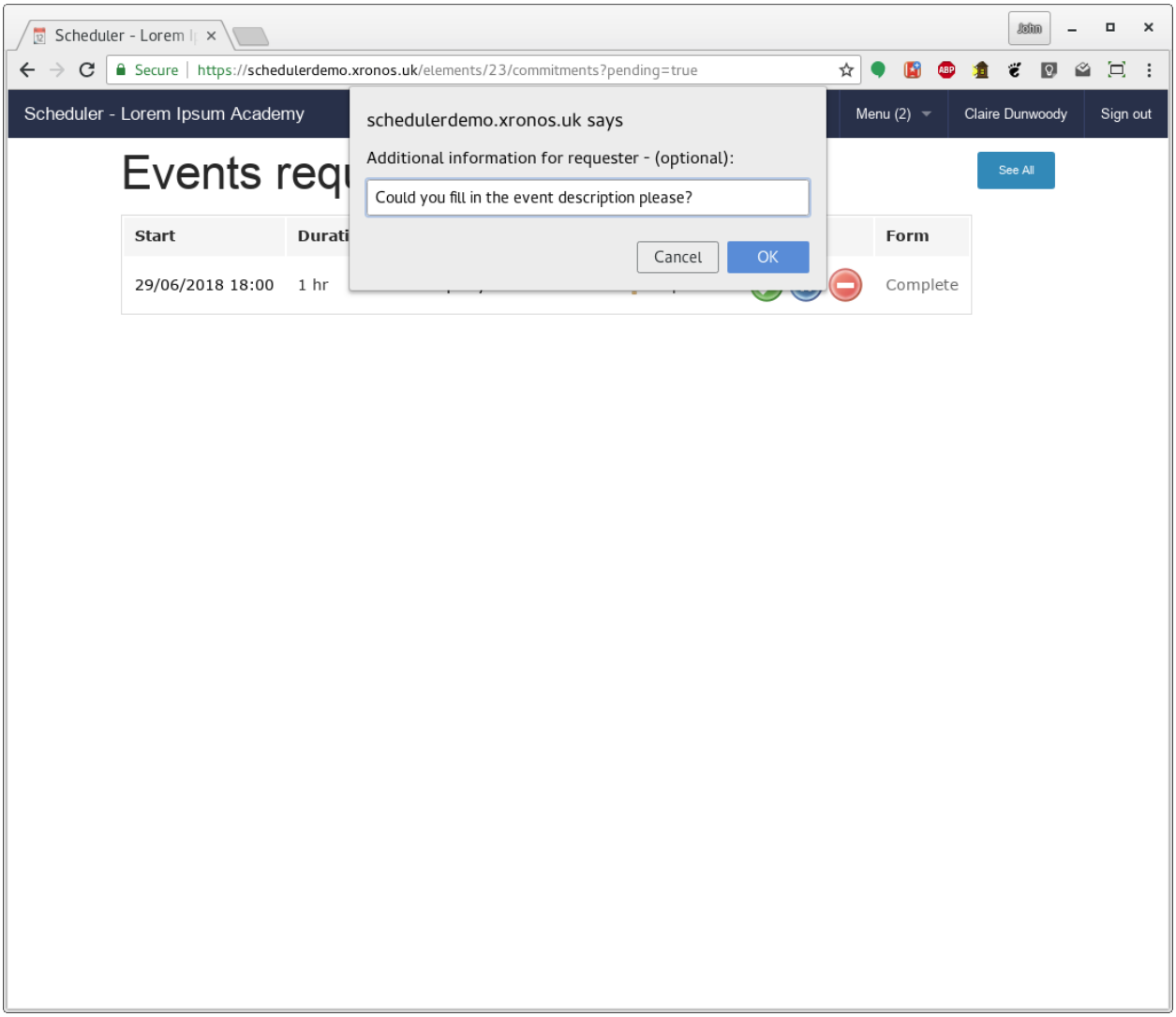
Some resources - like catering - have a form attached. Clicking Menu => Events => Catering brings us to this screen:



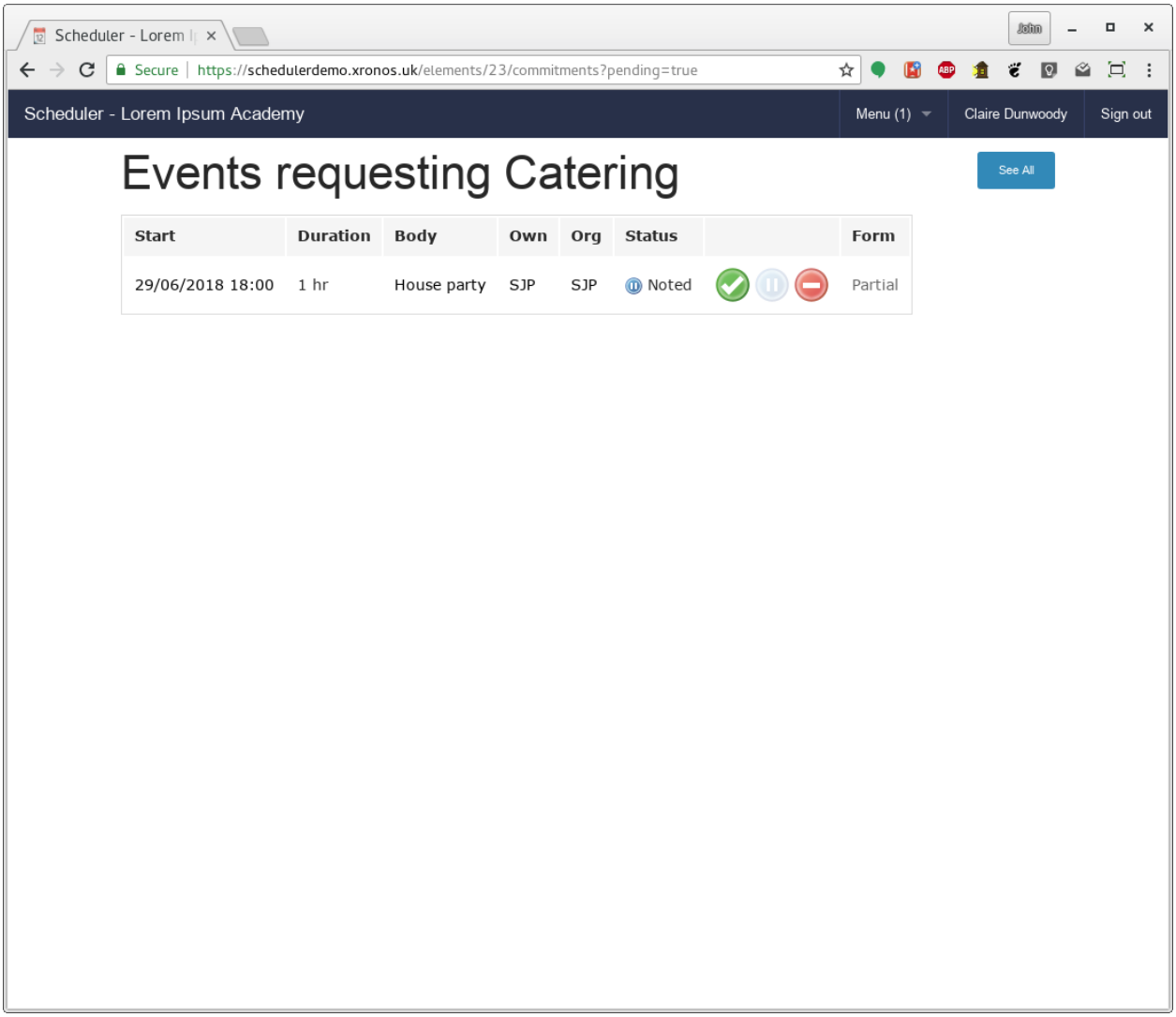
The word “Complete” in the final column is a link, and clicking on it allows the form to be viewed.



Let's assume that approval can't be given yet because of the lack of an event description. Clicking "Back" to go back to the listing and then the blue button produces a small dialogue.



and then the request moves into a state of “Noted”.



The user's count of items awaiting attention has now gone down to (1). As far as this request is concerned, the ball is back in the requester's court. When the requester amends the form, it will come back to the approver.

CHAPTER

TWO

EDITING FORMS

2.1 Overview

If you control a resource within Scheduler, it is likely that your system administrator will have given you the ability to create and edit forms. These allow you to gather more information about what the end user requires from your resource.

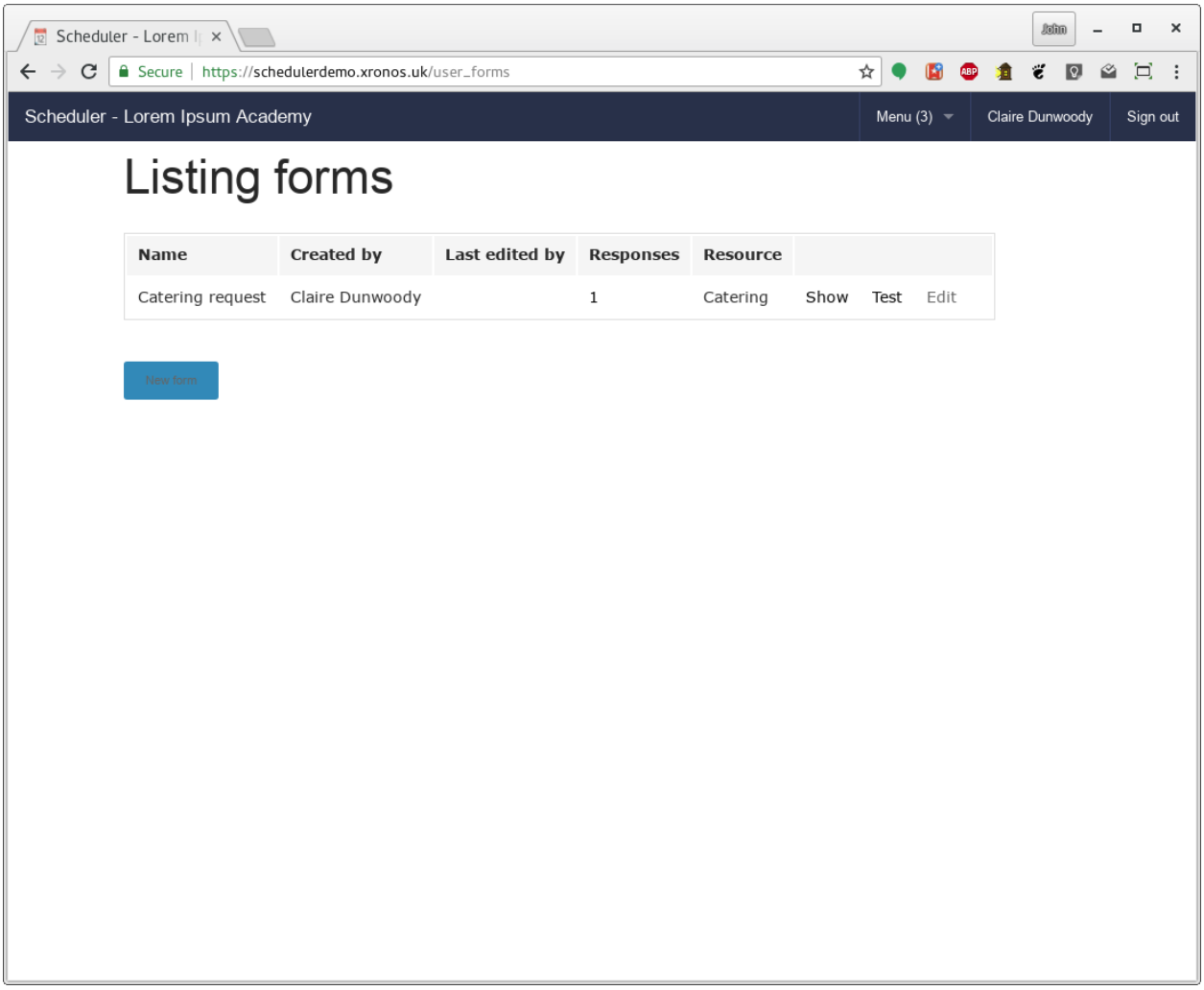
A typical example of this would be the catering department gathering more information about the exact type and quantity of catering required for an event.

Note that there is a single pool of forms within the system - they do not belong to individual users. If you have form editing permission you will therefore be able to edit any of them. Changing one in use by another department will probably not be a good idea.

Forms can potentially be used by more than one resource. The workflow is first to create the form, then attach it to whichever resource(s) need it.

2.2 Listing

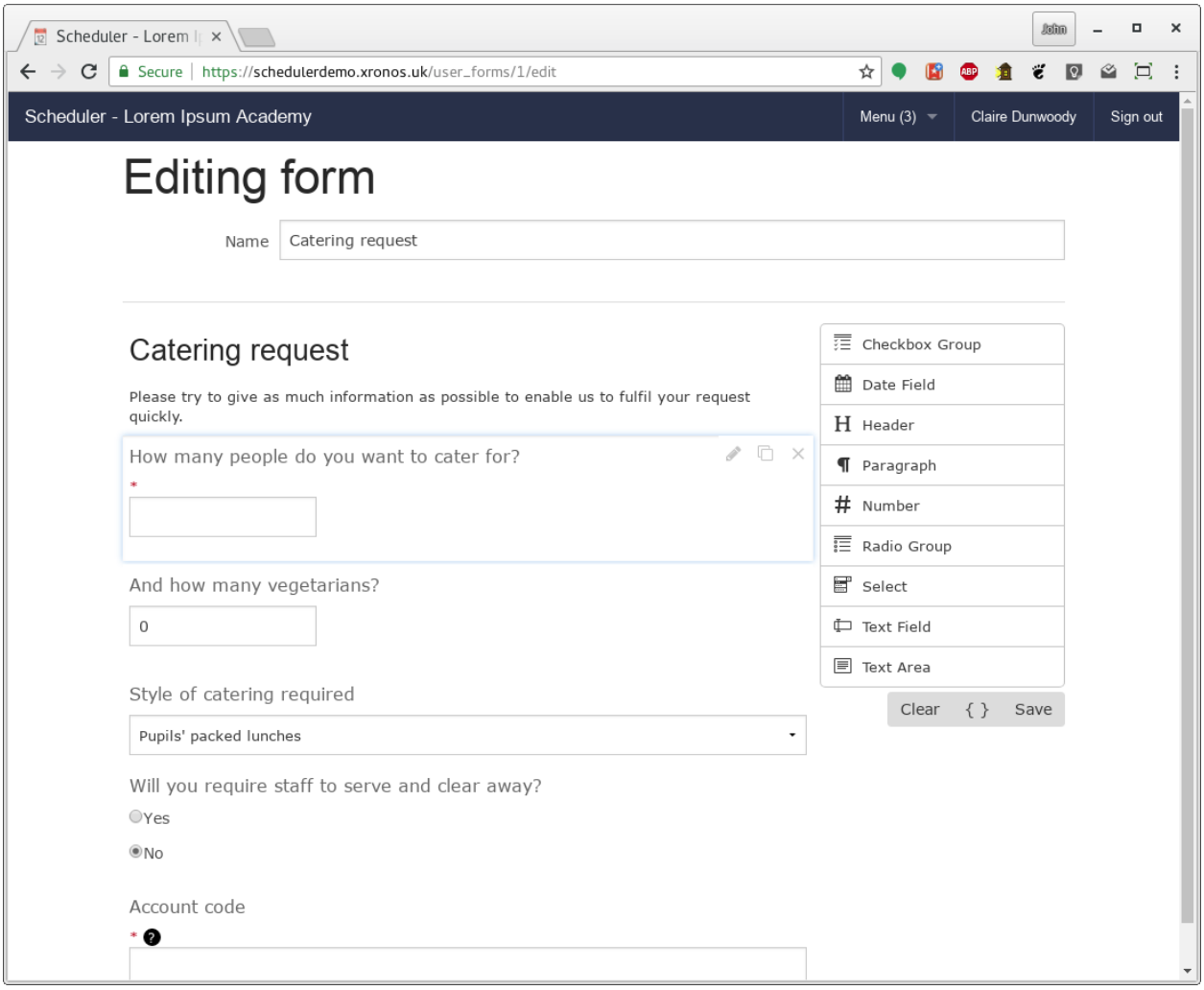
To list the forms in the system (assuming you have the necessary permission) choose Menu => Forms from the top menu bar. You will see a screen something like this:



The form listed here is created by default in the demonstration system and is the one used to document forms in the basic user guide.

2.3 Editing

To edit this existing form, click on the “Edit” button to the right of its listing entry and you’ll get a screen like this:

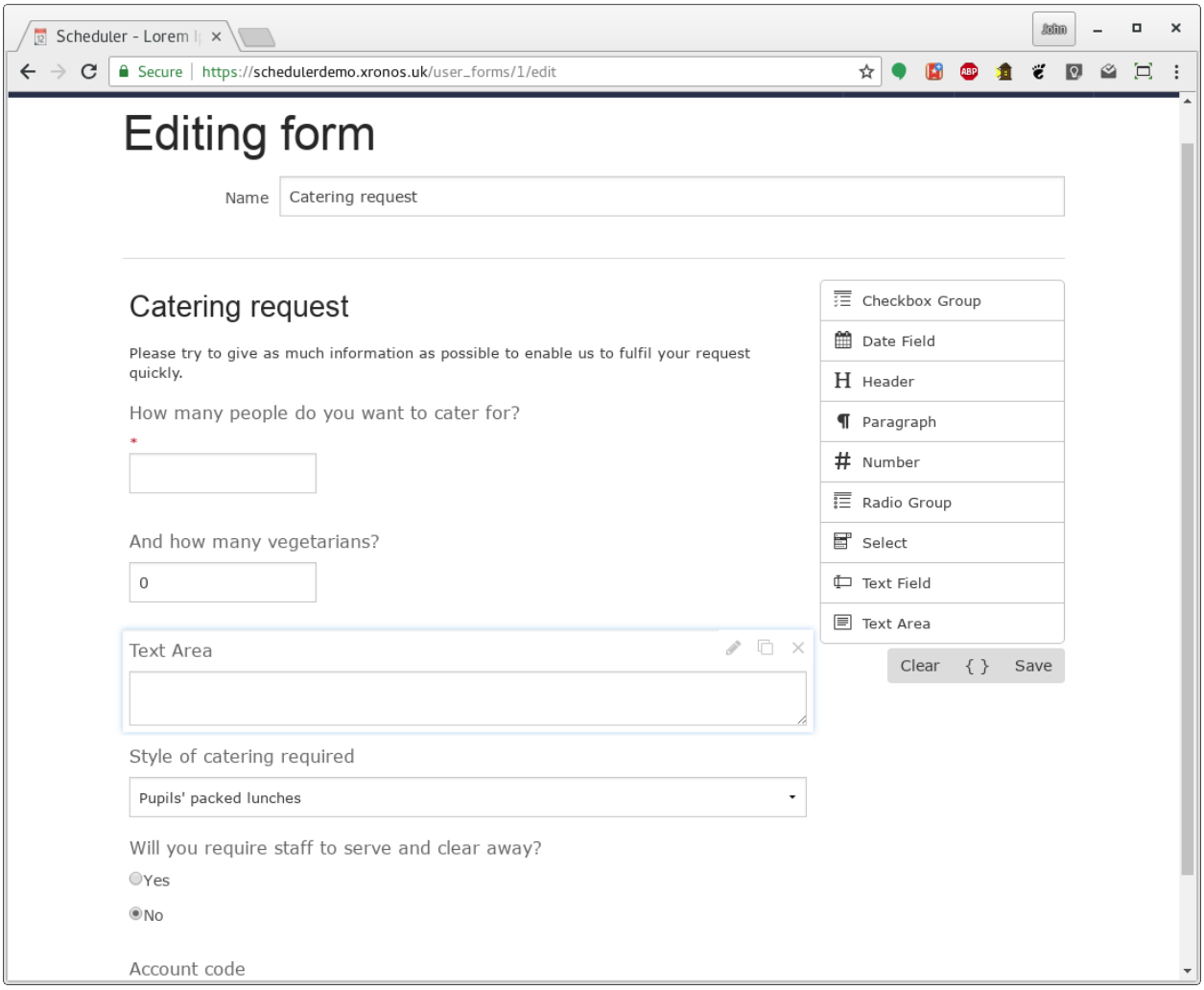


The name of the form is given in the field at the top, and then everything below that provides a drag-and-drop interface for adding or removing fields.

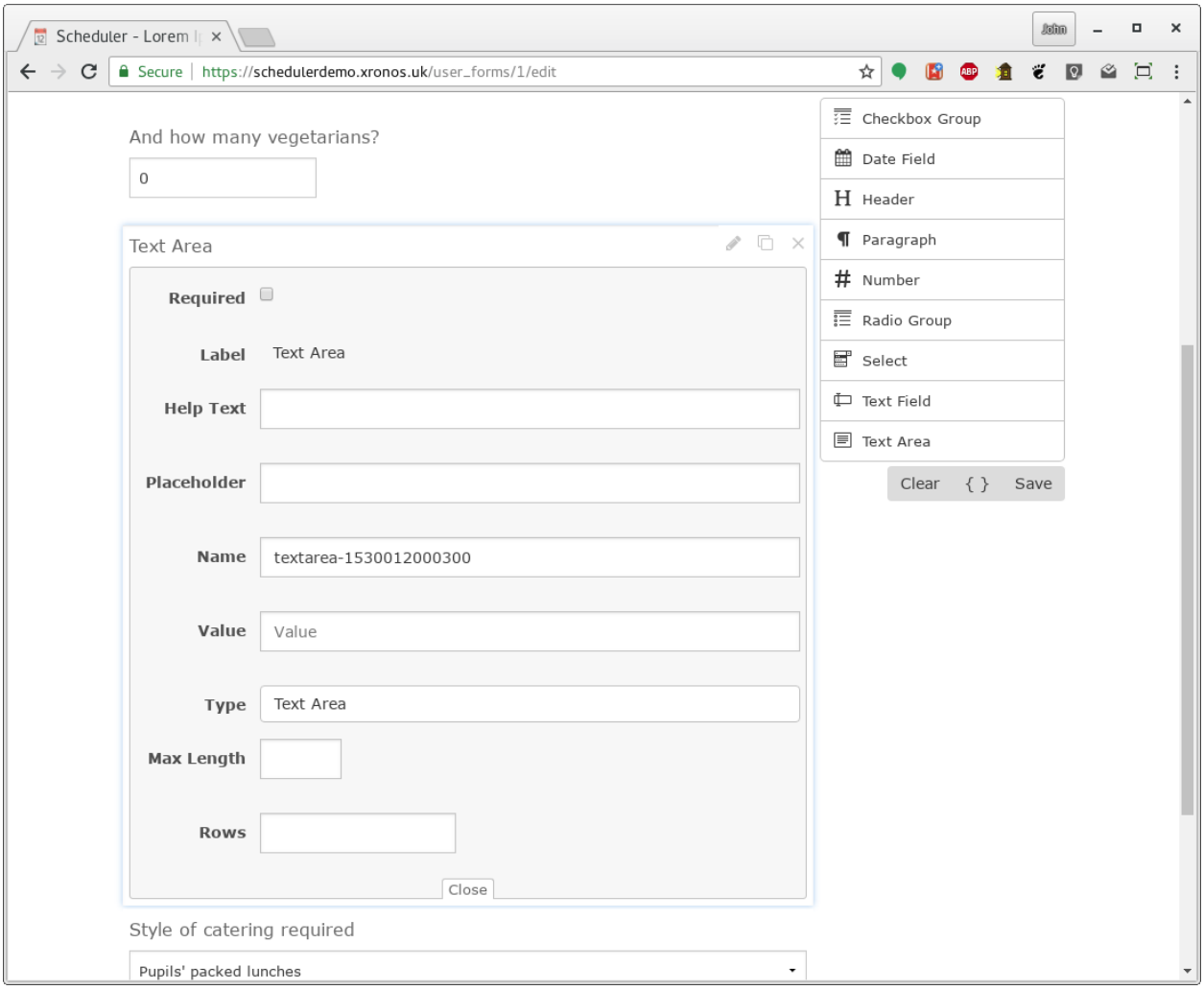
Warning: If you remove a field from a form which has already been used (that is - one which has had copies filled in by users) then the contents of that field for each of the existing responses will become effectively unavailable.

On the right you have a list of the kinds of fields which are available. To create one, simply drag it onto the main body of the form at the place where you want the field to be.

Let's say we want to provide a field for the user to give a general description of their event. Drag the "Text area" item from the right to just above the "Style of catering" field and we have:



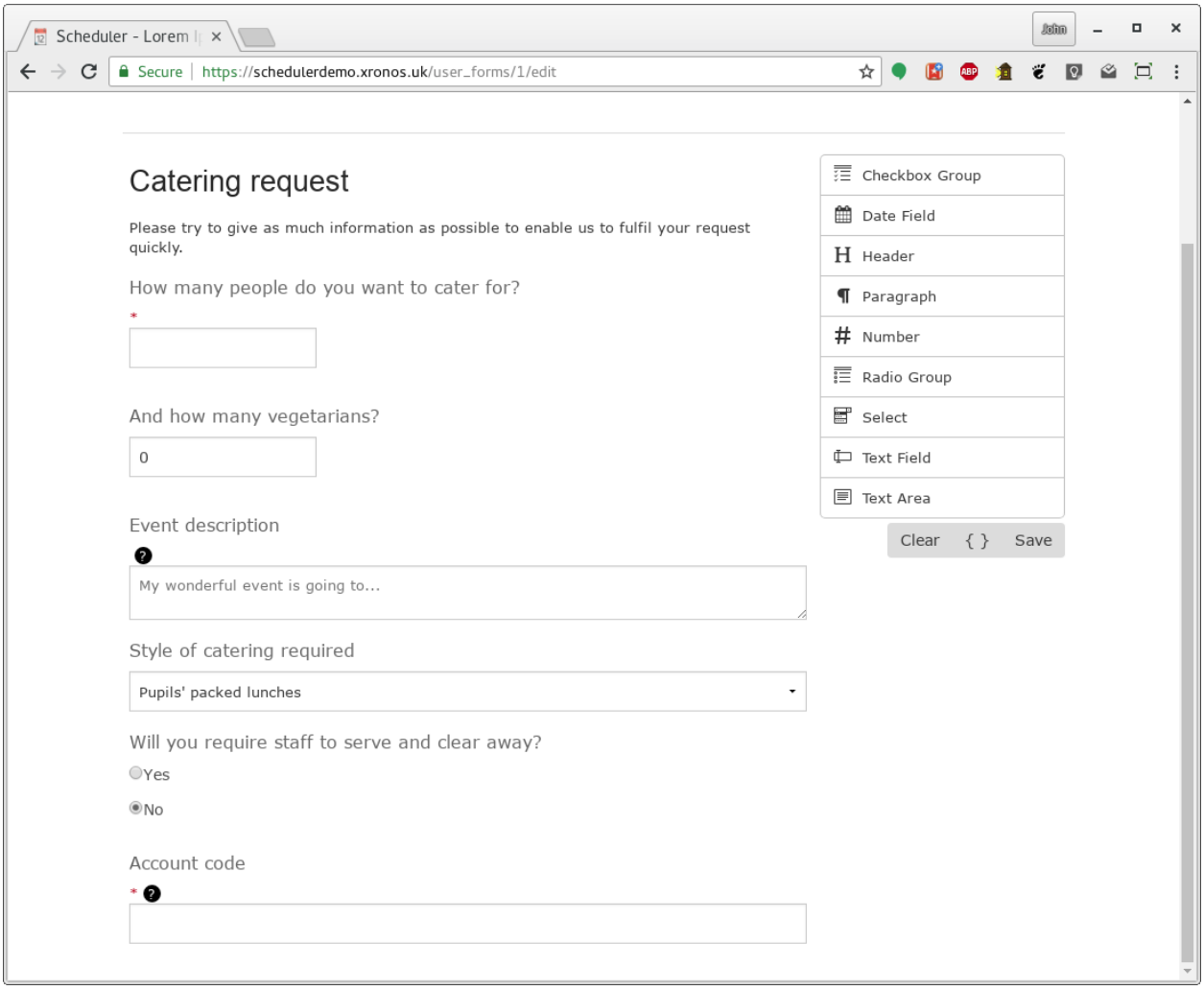
The default name of “Text area” isn’t terribly helpful, but you can click on the little pen icon and adjust various properties of the field.



If you click on the label ("Text area") you can change it, and likewise you can provide help text, placeholder text and default contents.

The Name is particularly important. Provided you leave this alone you can change any other aspect of the field and the system will recognize it as being the same field. If you change the Name, then it will become a different field, causing problems with any existing responses held within the system.

When you've finished tweaking the field, click on "Close" at the bottom of the box and it will collapse back to being just a field. I've called it "Event description" and given it some help text (which causes the black question mark) and some placeholder text.



When you've finished setting up your form the way you want, click "Save" on the right hand side and you'll be taken back to the listing.

2.4 Creating

To create a new form, click on the "New form" button in the forms listing, give it a name, and then proceeed as for editing above.

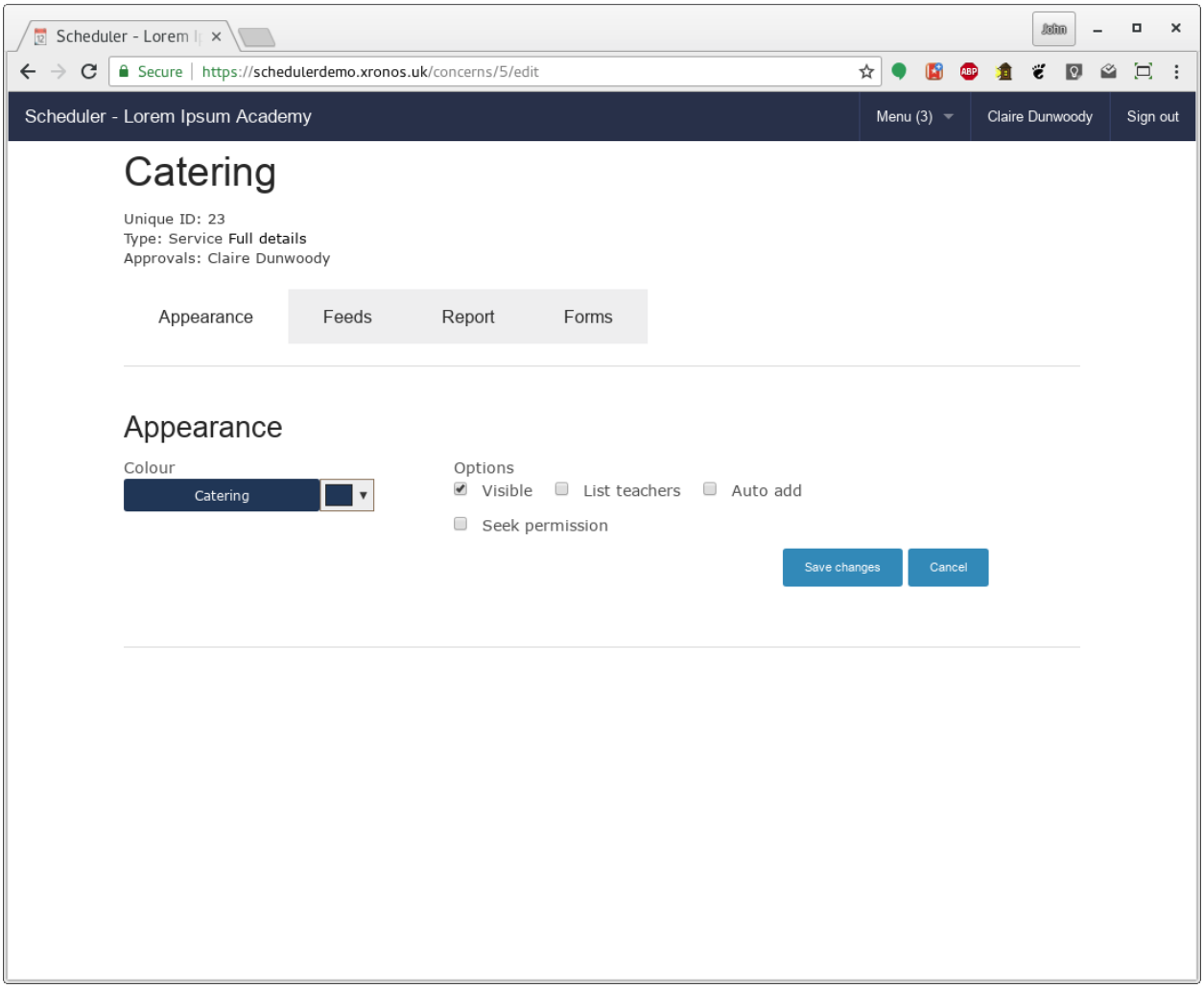
2.5 Attach to resource

Note: You don't need to have form editing permission to be able to attach a form to your resource - you just need to be a controller of the resource.

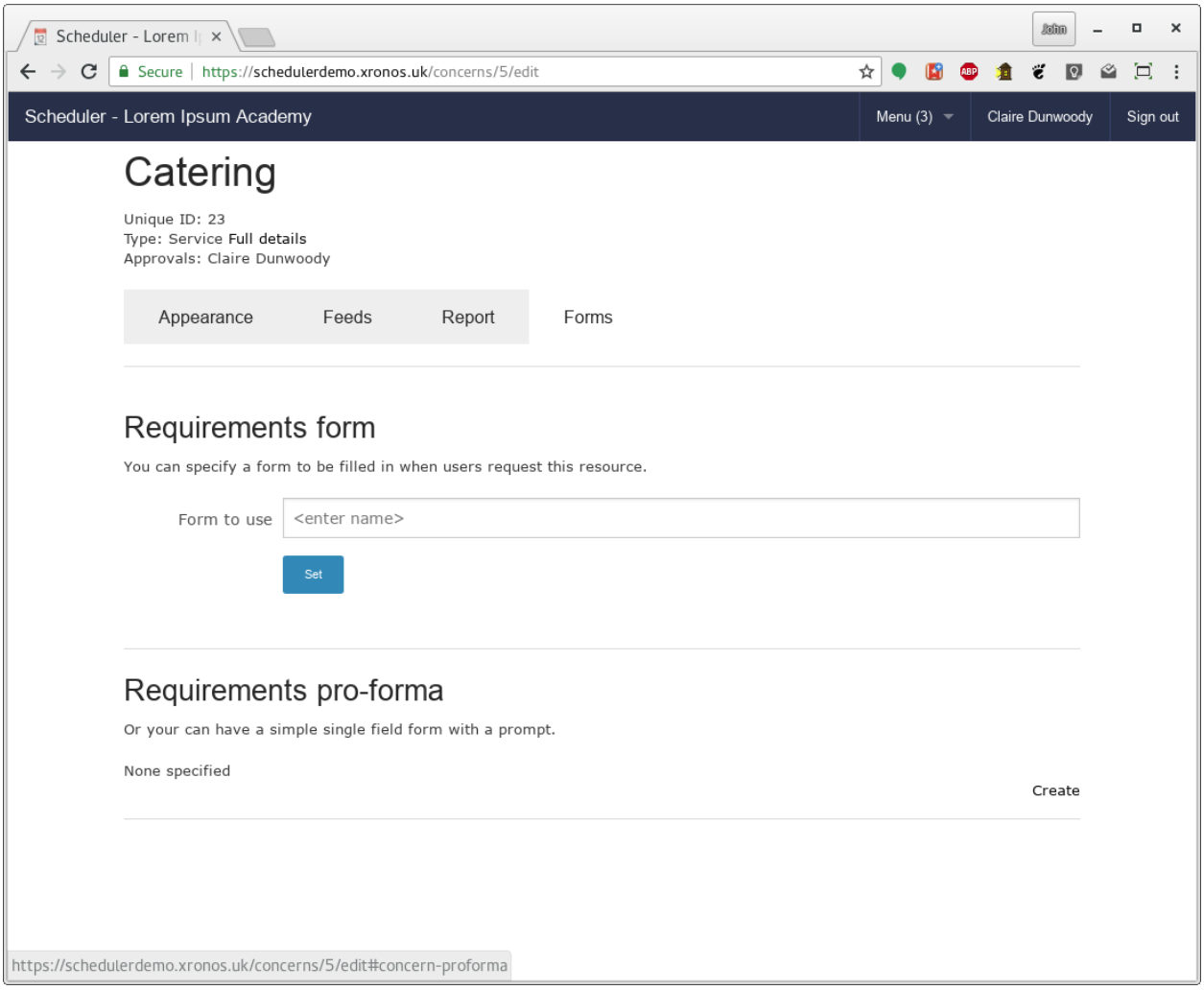
Likewise, you could have form editing permission, but not be the controller for any resource, in which case you can create forms but not attach them.

All this is under the control of your system administrator.

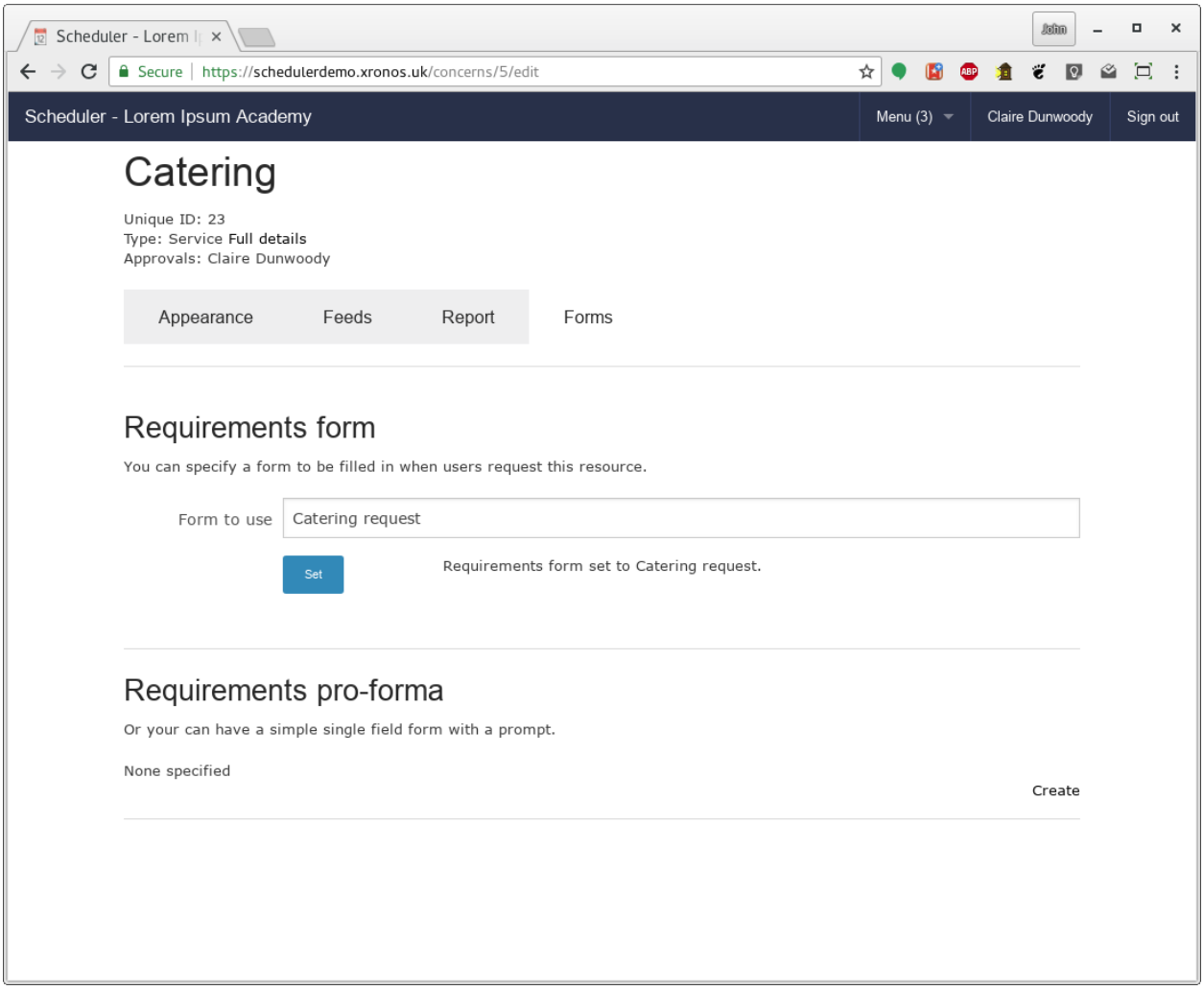
Once created, the form can be attached to a resource which you control. To do this, click on the name of the resource on the left hand side in your main calendar display and you'll get a screen like this:



This is the normal screen for seeing more about a resource, but because the current user is a controller of the resource there's an extra tab - "Forms". Click on the Forms tab and you'll see:



The field labelled “Form to use” is the usual kind of predictive text field. Just start typing the name of the form which you want, select it, and then click the “Set” button.



In this case, the form for the resource has been set to be the one called “Catering request”.

Once a form is attached to the resource, all users requesting the resource will be required to fill in the form.

2.6 View and approve

Once forms have been set up and then filled in, the viewing of them fits in to the rest of the *Event approvals* procedure.

CHAPTER

THREE

EXAM INVIGILATION

3.1 Overview

Some School Management Information Systems are better than others at handling the entry and maintenance of exam invigilation slots. If your MIS has the facility to handle these then Scheduler will import and display them, but if not then you can do it directly with Scheduler.

Scheduler will assist you with setting up the framework of slots, scheduling when the actual exams are, and selecting the most suitable staff to use for each individual slot, taking into account suspended lessons and how many slots each staff member has already done.

Scheduler aims to help with the process of converting a general statement about when and where exams will be into a set of individual invigilation slots.

Note: Scheduler uses the following terms:

- **Exam Cycle** - a set of exams like "3rd year summer 2019 exams", or "January re-sits 2016".
- **Exam Session** - a continuous period of time when exams are in progress. Typically an Exam Cycle will have several (possibly many) Exam Sessions. Each Exam Session has a start and end time, and covers not just the actual duration of the exam(s), but also the setup and clear up times. An example might be "Wed 8th June, 08:45 - 12:30".
- **Exam/Invigilation Slot** - a period of time within an Exam Session which is allocated to one or more individuals to invigilate. The duration of your Slots will typically be driven by your school's normal timetable.

In setting up an Exam Cycle in Scheduler it is assumed that someone has already decided when the exams will happen and what rooms they will use. We enter that information into Scheduler, and then along with what it already knows about your school day it can generate all the necessary Exam Slots. Given a list of the staff who may do invigilation, it will also assist you with allocating individual staff to each Slot.

Note: All the screen shots below are taken from the Scheduler demonstration system. You can work through all the stages yourself by logging in as CED from the pull-down login menu. Claire Dunwoody (CED) is designated as the exams officer on this system. You will see some differences in staff names because most of the staff are randomly generated each night, but the general flow remains the same.

It is assumed that you already know the basics of how to create events within Scheduler - if not then see the Scheduler User Guide.

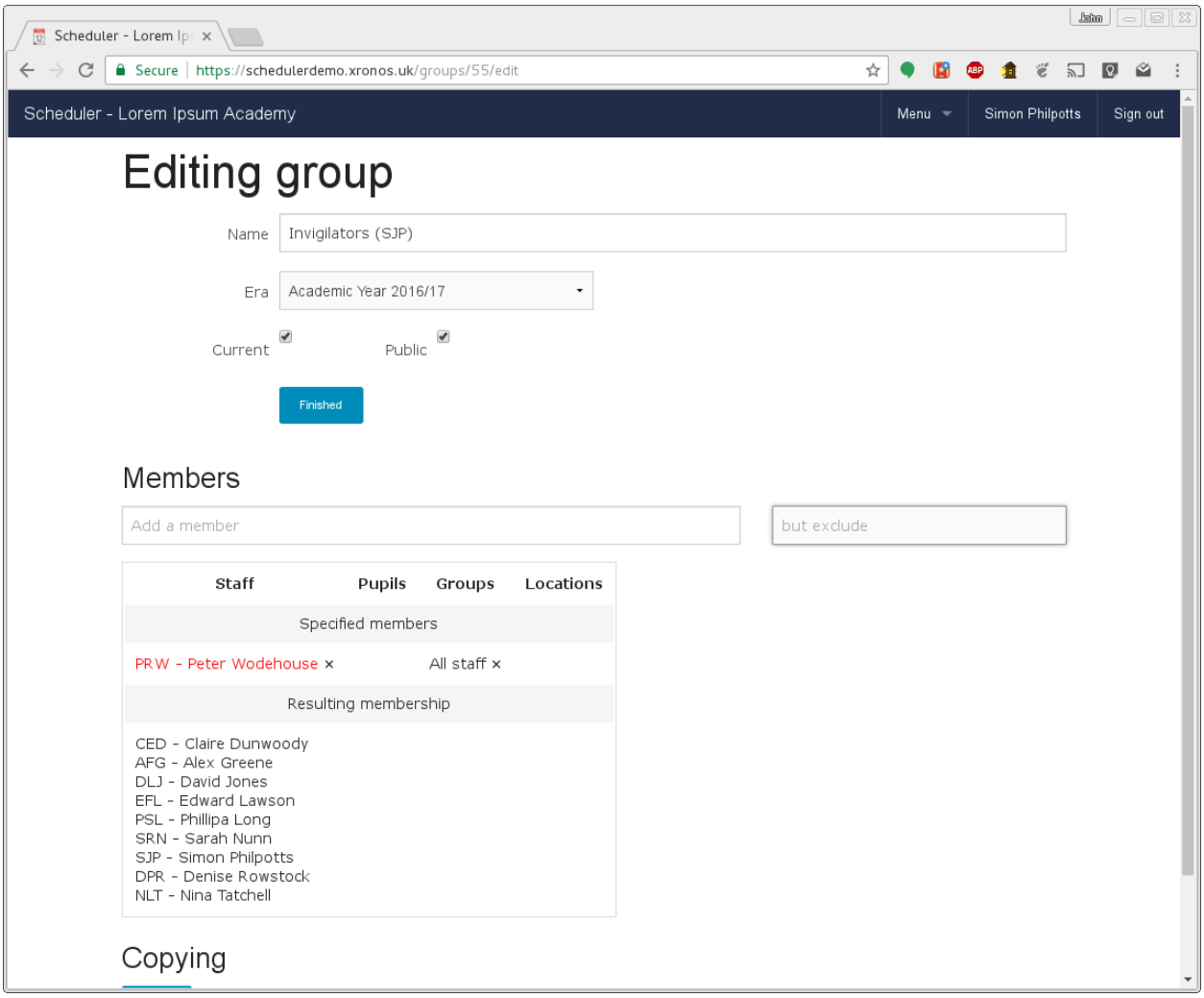
3.2 General setup - done only once

The next three items need be done only once, then the same data will persist across all your Exam Cycles with only minimum changes.

3.3 Who can invigilate?

Assuming your normal teaching staff do invigilation (rather than extra people hired in specially) your first step is to set up a Scheduler Group listing those who are eligible to invigilate.

Scheduler's normal facilities for combining and building on groups mean that you can base this group on an existing group - e.g. Teaching Staff - adding or removing people as needed.



In the above screen, a group has been created called "Invigilators (SJP)" and it has been specified as including all staff, except Peter Wodehouse who doesn't do invigilation.

By basing the group on another group like this, you can make sure it updates dynamically as staff arrive or leave.

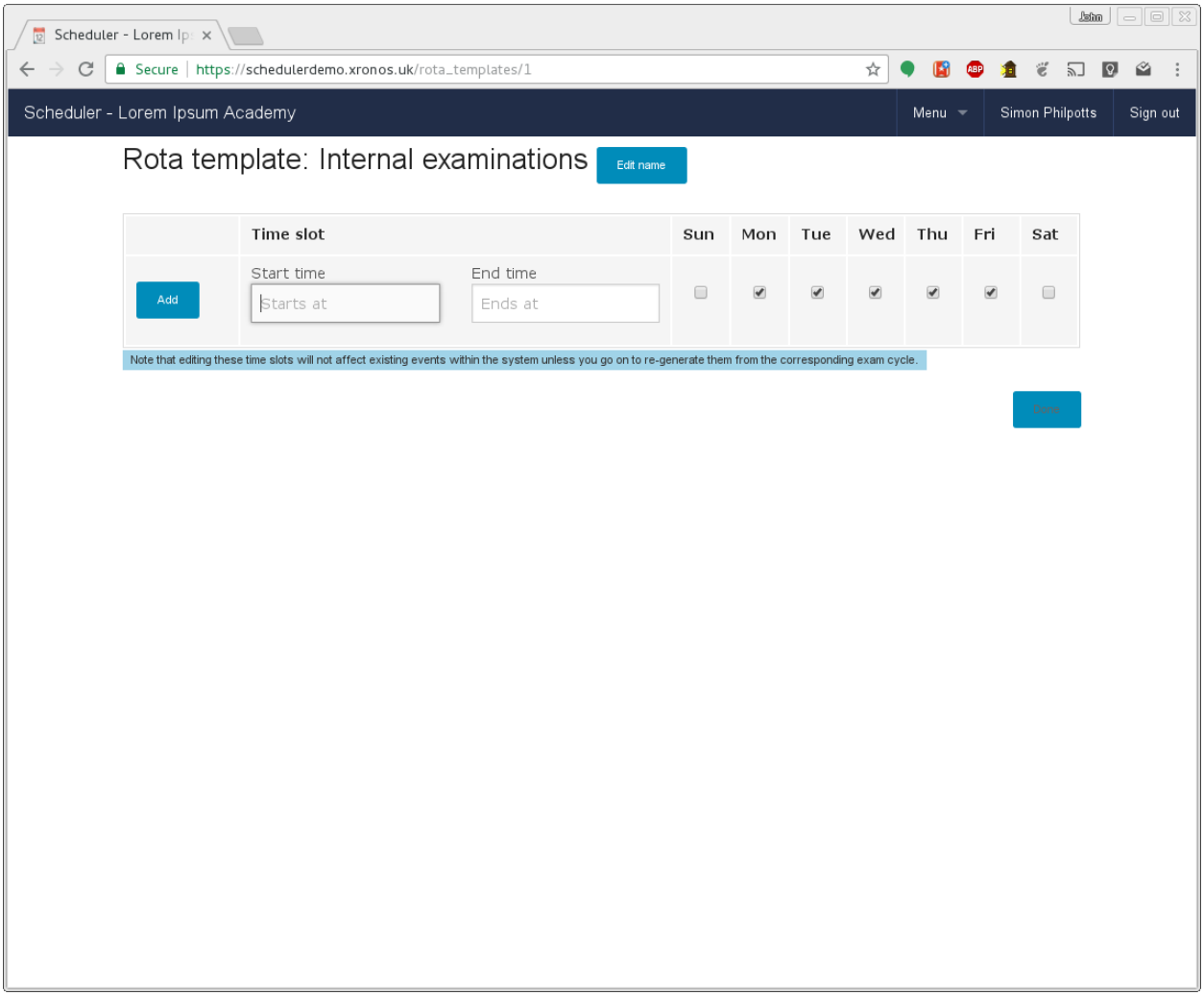
You are strongly advised *not* to use an existing system group directly in the exam cycle to provide your invigilators - you will almost certainly find later that you want to add or remove someone.

By creating your own group based on a system group as shown here, you gain much more flexibility.

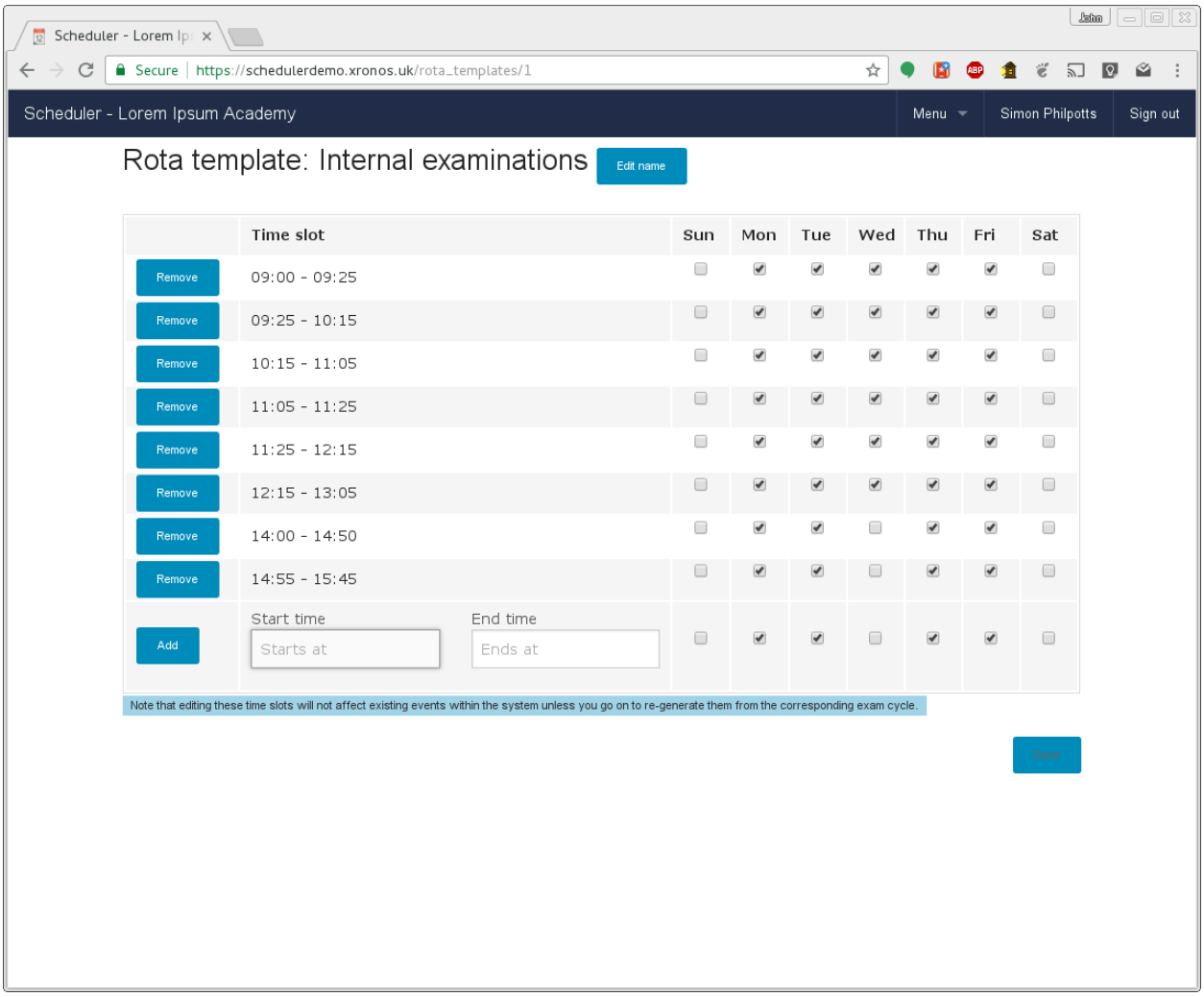
3.4 Shape of the day

Your school will have its own idea of how long an invigilation slot should last and when they will be. Quite likely this will reflect your school's normal timetable. You enter this information as an Exam Template. From the menu icon in the top bar, choose Menu => Invigilation => Template, and then click on the "New Rota template" button. Enter a name for it (e.g. "Internal examinations") and click on "Create".

You will then see a screen like this:



Enter start times and end times for each of your sessions, clicking Add after each one. Note that you can set up different time slots for different days of the week if you want to.



In the above screen, we don't have any slots on Wednesday afternoons.

You can add or remove the slots until you have the correct configuration, then click on "Done".

You may want to set up more than one template to reflect the different ways in which you organise different exam sessions. For instance, you might have different period times in your lower school from those in your upper school, in which case you'd probably want two different rota templates - one for each.

3.5 How many invigilators per room

Each Location record within Scheduler contains a field specifying the default number of invigilators for that room. This value defaults to 1, which is appropriate for normal classrooms.

It is probable however that your school has some bigger venues too which are used for public examinations and the like. By editing the Location records for these rooms you can change their defaults.

For instance, you might use your Sports Hall for public exams, and you might want to set the default number of invigilators there to 5 if it's a big one.

You can always tweak this number later at the point of allocating the invigilators. If you happen to know there's only a small number of candidates at a particular time, you can allocate two invigilators and then set the number for that particular slot in that room to two.

3.6 Setting up an Exam Cycle

Having done the general setup steps above, you are then ready to enter details of a particular Exam Cycle.

The timings of the Exam Sessions will be entered as normal events into Scheduler, with the required rooms attached to each Session. Scheduler needs some way of knowing that these particular events are the ones which define your sessions, and so each should also involve a particular Element of your choosing - referred to as a **Selector Element**.

The simplest way of doing this is to create a new Property within the system. It could be called "Year 11 exams", or anything else which you choose. You can create a new one for each Exam Cycle, or re-use the same one for all of them.

Note: The only time when you absolutely need to have two separate **Selector Elements** is when you have two simultaneous Exam Sessions and you want to keep them distinct. Otherwise you could just have a single one called "Exam session".

3.7 Suspend the lessons

If the Exam Cycle is replacing lessons for one or more year groups then the lessons for those year groups should be suspended on the relevant days. This frees up the staff who would be teaching those lessons to be first choice for invigilating the exams.

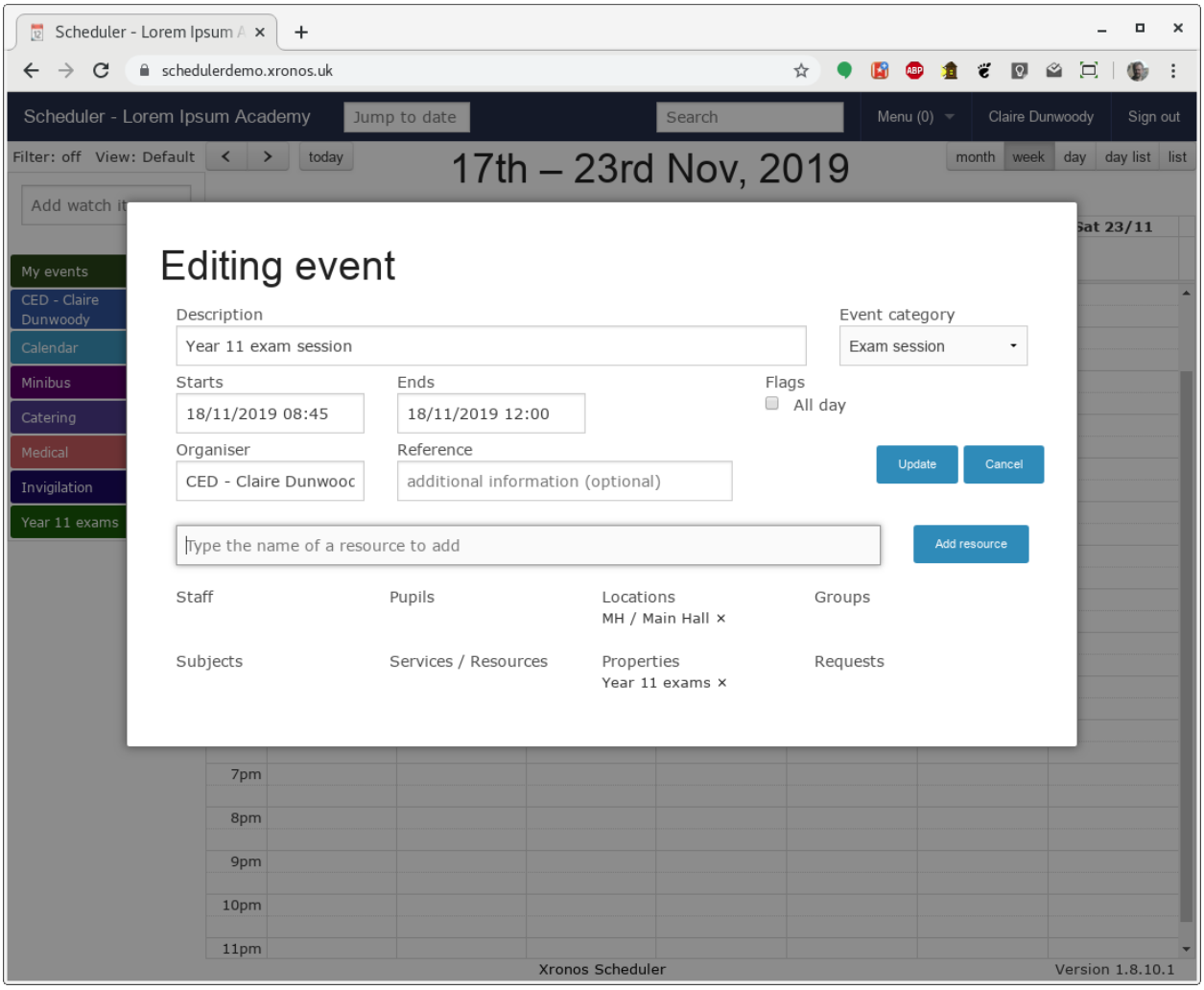
Information on how to suspend lessons will be found in the Scheduler Admin Guide.

Suspensions take effect at the next data import from your MIS, so make sure you put the suspensions in place at least a day before you want to start allocating staff to invigilation slots.

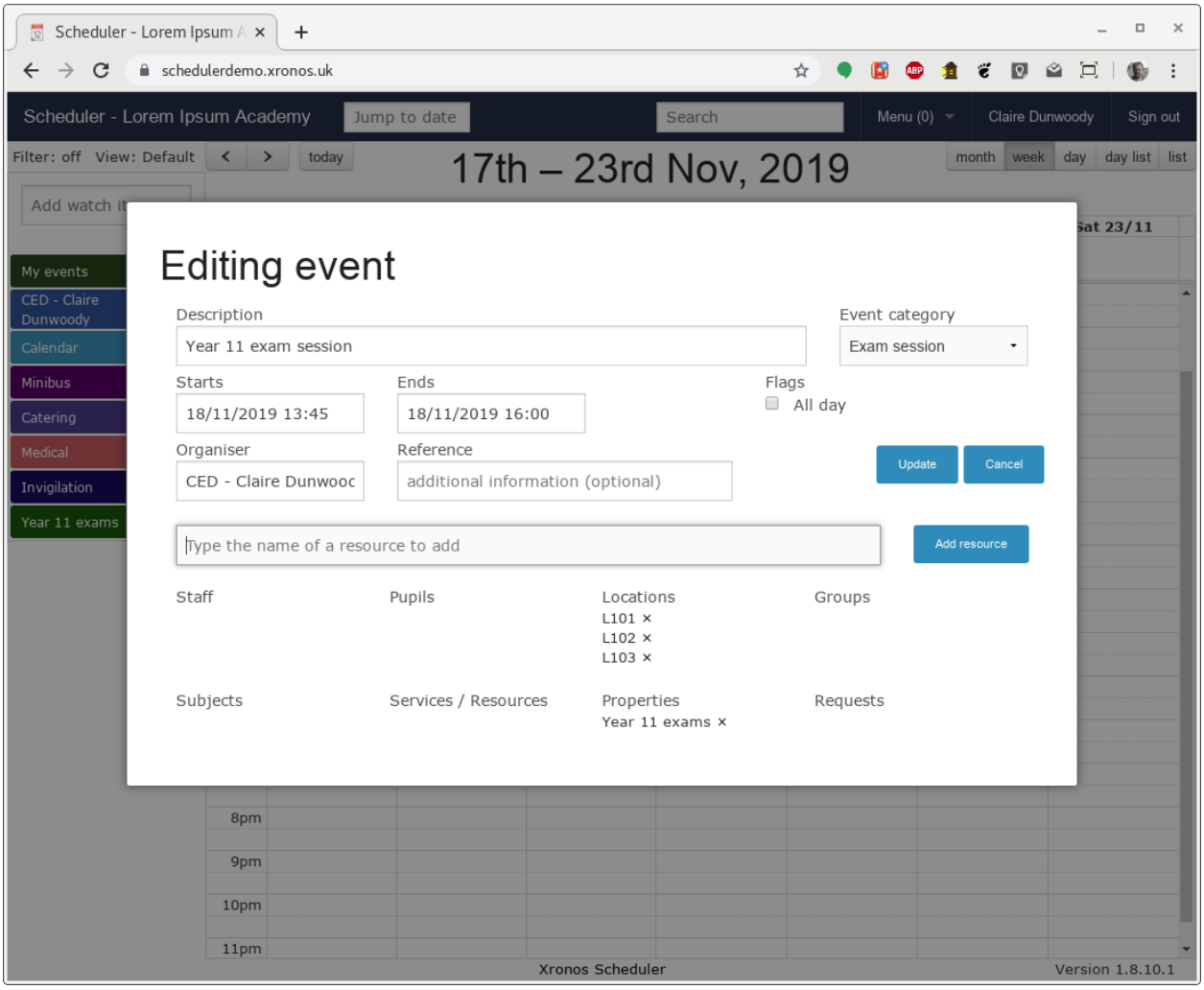
3.8 Entering the Exam Sessions

Exam Sessions are entered as normal Scheduler events. You can use any of the usual techniques of clicking and dragging, and having entered one you can clone or repeat it to enter others.

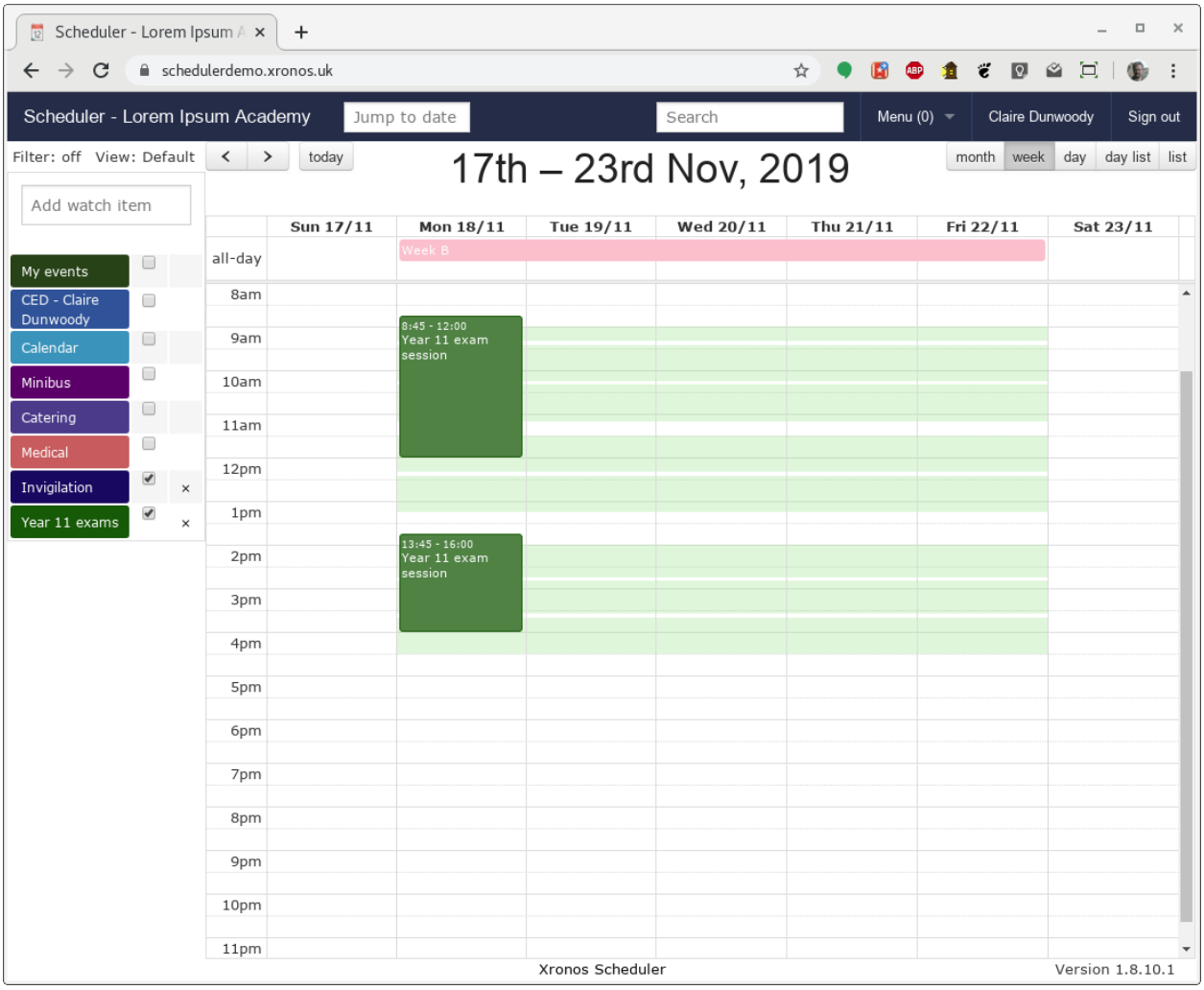
The following event represents an Exam Session from 08:45 (to allow setup time) to 12:00 on Mon 18th November. The room in use is the Main Hall and it has the "Year 11 exams" property attached so that the system knows it is to be considered as part of our Exam Cycle.



and then this second one is the corresponding Exam Session in the afternoon. Note that instead of using the Main Hall, this one is using three ordinary classrooms.



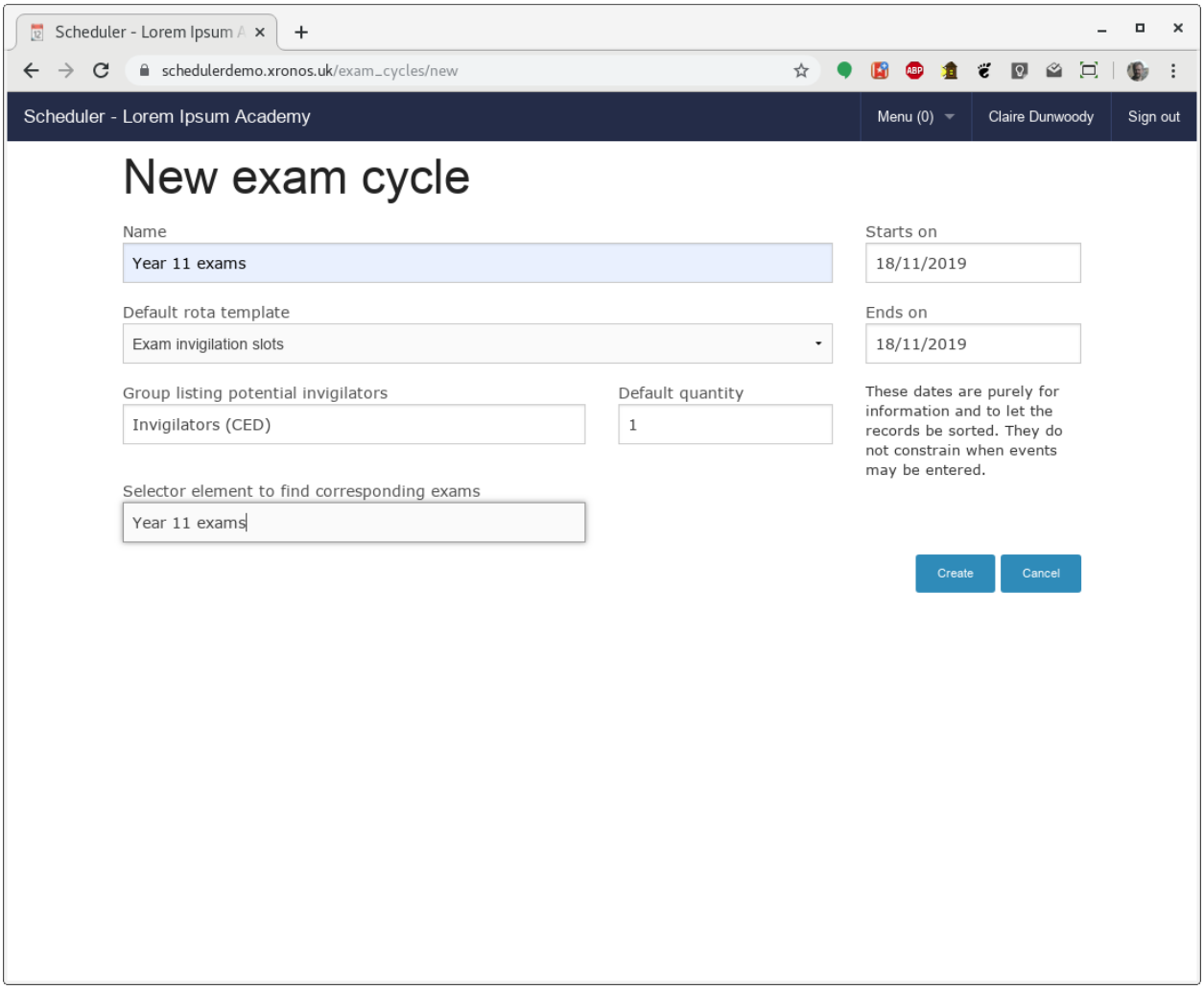
and the two together look like this:



3.9 Create an Exam Cycle

With all the building blocks now in place, you can create an Exam Cycle record which pulls them all together.

Choose Menu => Invigilation => Cycles, and then click on the “New Exam Cycle” button.

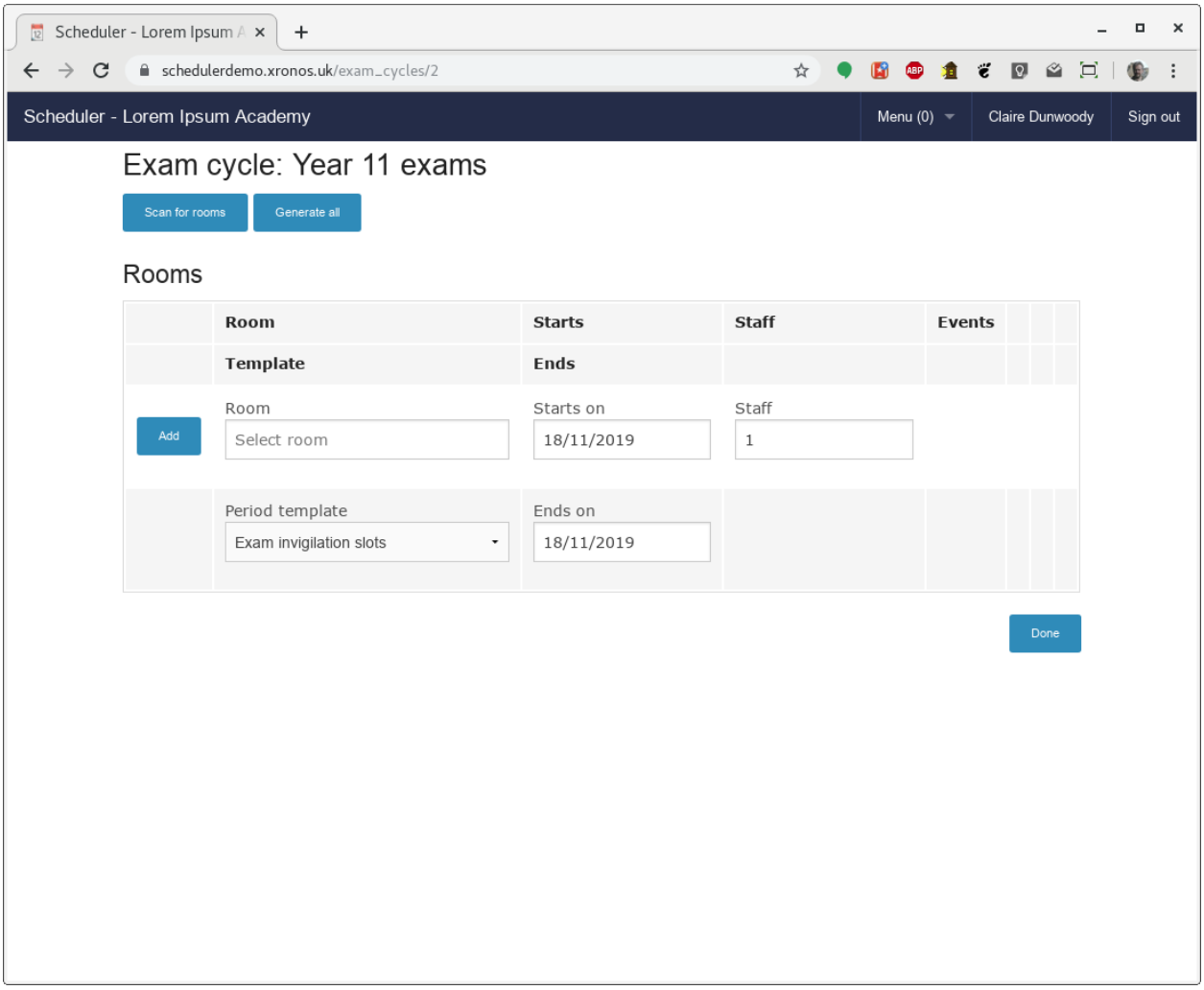


In the above screen shot, all the necessary fields have been filled in. The first field is a simple name for the cycle, then below it the template to be used. On the right we have the duration of the cycle (just 1 day for this demonstration) then the name of the group to be used to provide invigilators, and the default number to expect for each room, and finally the Selector Element which let's Scheduler find the corresponding Exam Sessions which were entered a moment ago.

Clicking the "Create" button will the cause the exam cycle to be created.

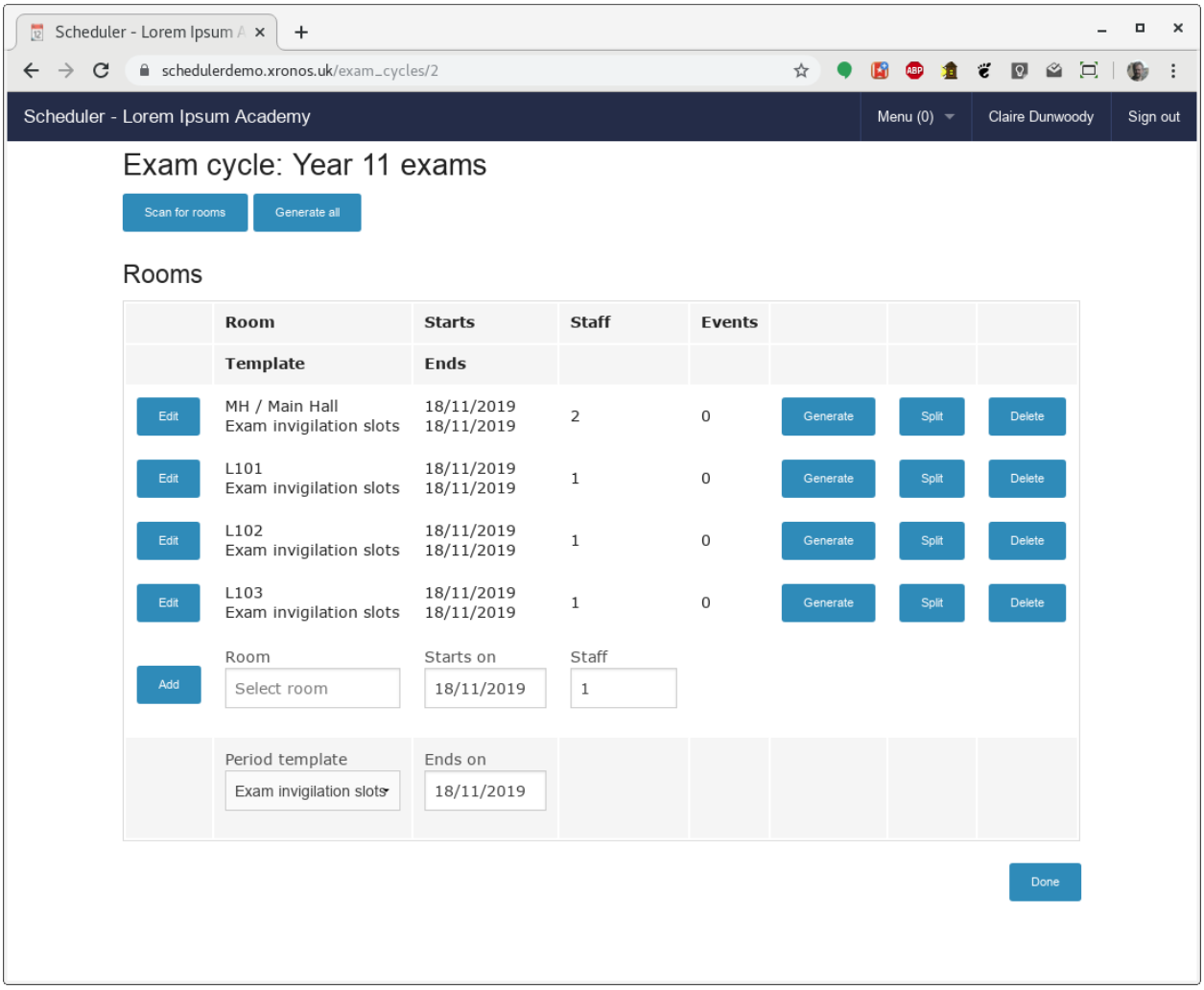
3.10 Build the invigilation slots

The system now has all the information which it needs in order to calculate your invigilation slots. Back in the listing of Exam Cycles click on the right-hand "Edit" link against your newly created Exam Cycle and you will see a screen like this.



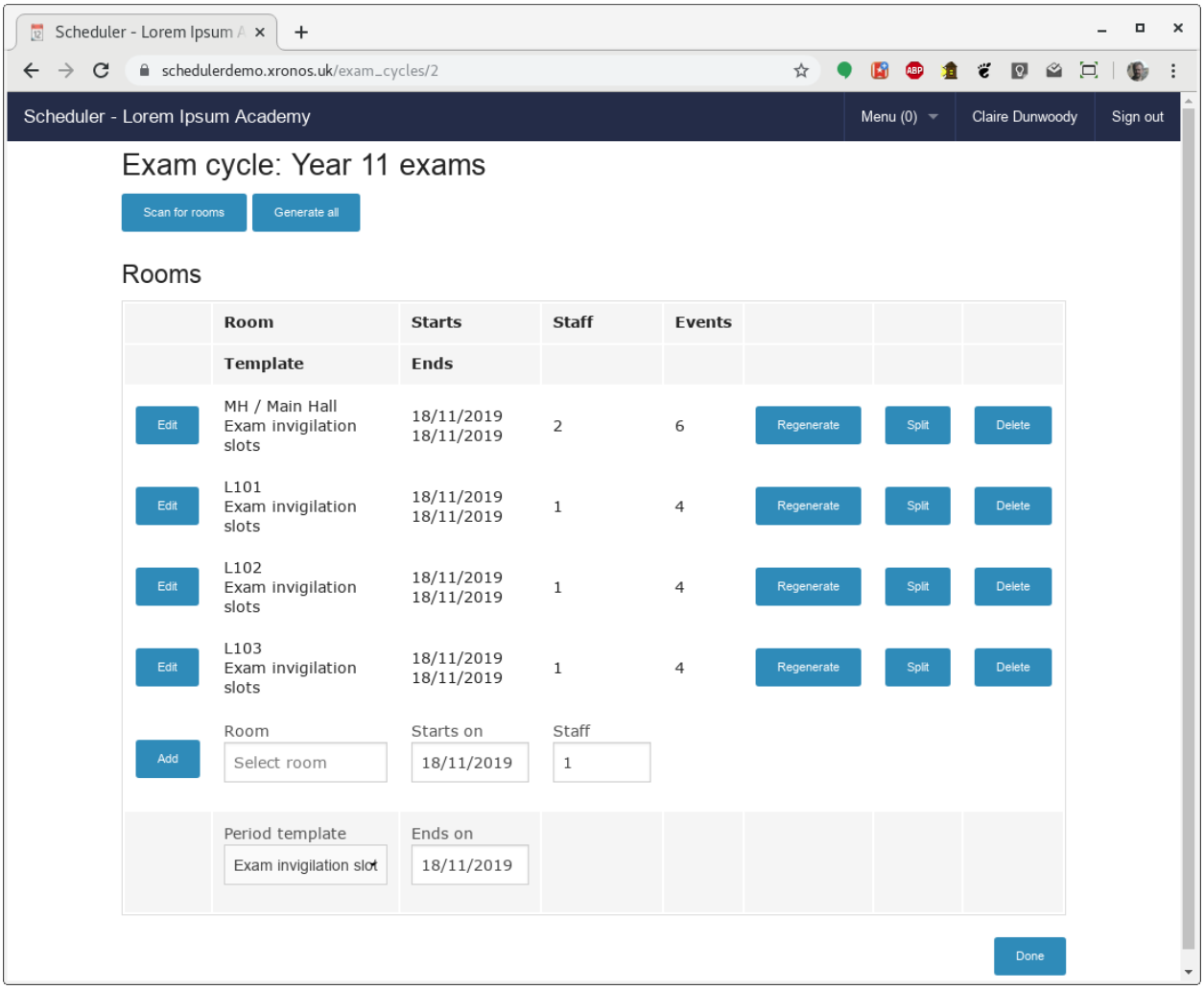
Here you could create individual records for each of the rooms to be used, but note the two buttons at the top, just under the title. They can do almost all the work for you.

Click the “Scan for Rooms” button and your display will change to this.



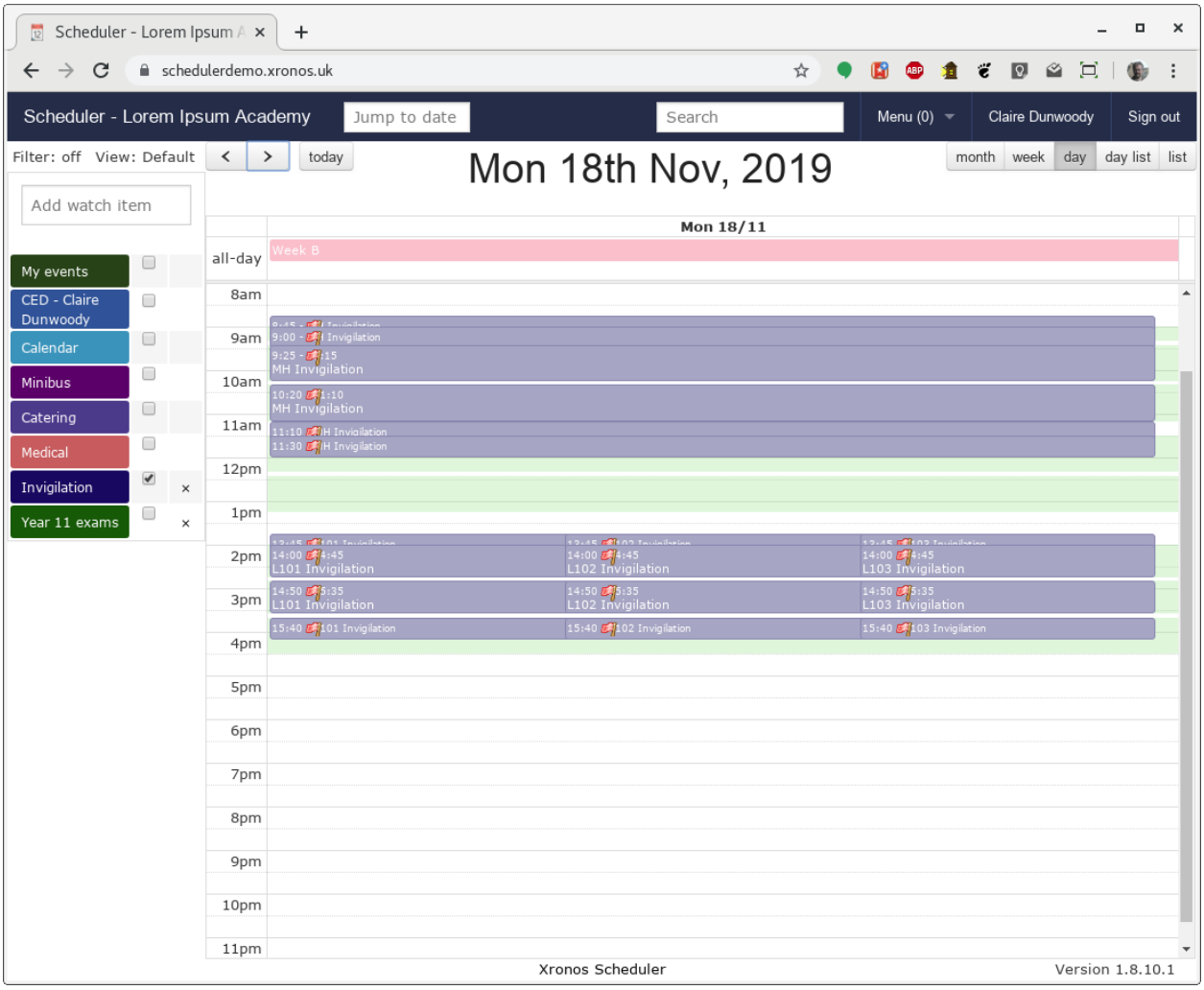
Scheduler has used the Selector Element to find all relevant events (the Exam Sessions) within the dates of the Exam Cycle, picked out all the rooms used by those events, and assembled them in a single list. These are the rooms which will require invigilators.

Then click the "Generate all" button and the display changes to this.



For each of the rooms previously identified, Scheduler has looked at when it is needed (from the Exam Session records) and at your defined invigilation times (from the Invigilation Template) and thus created all the Invigilation Slots which are needed.

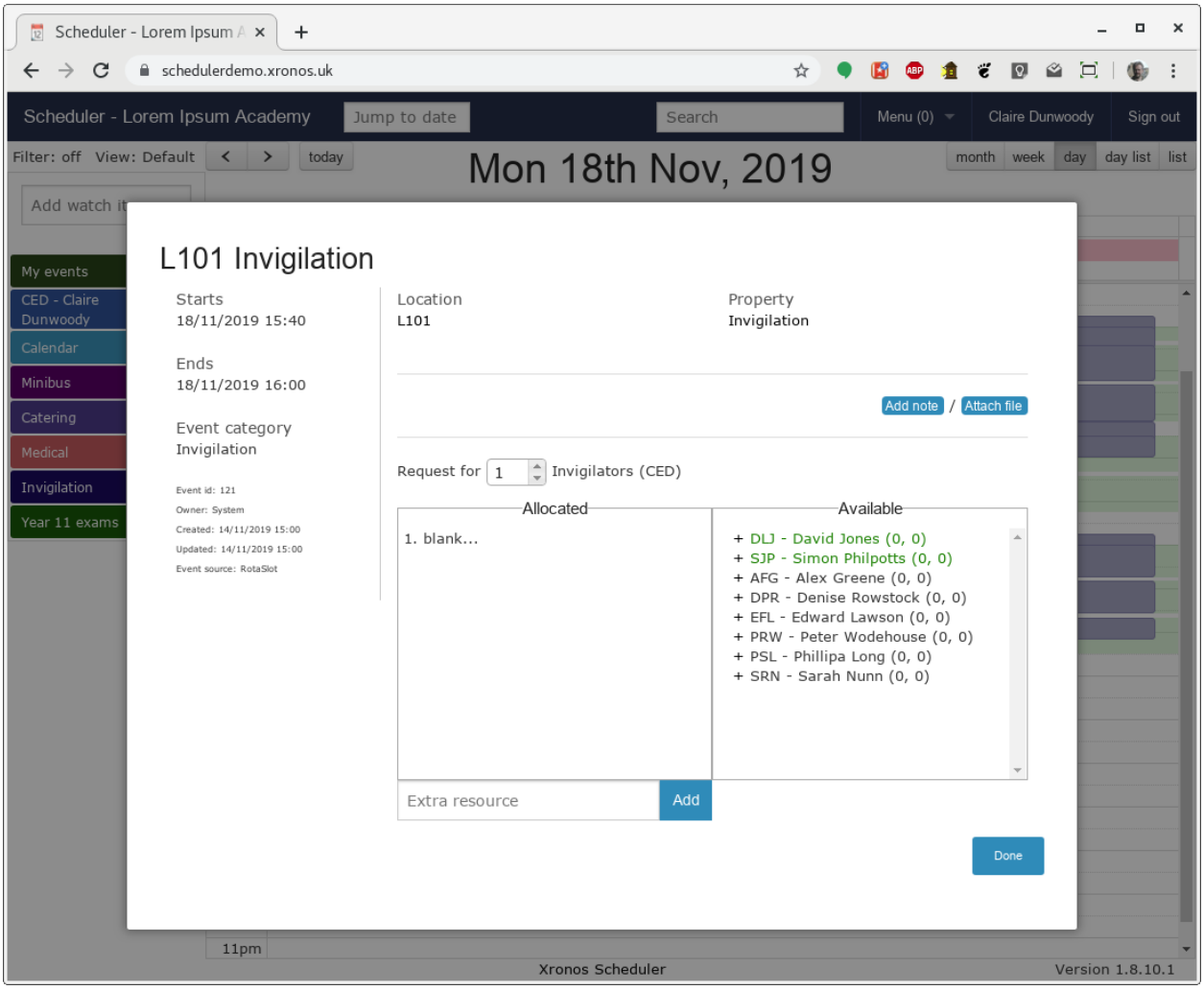
You can see them more graphically by switching back to the usual schedule display and looking at the “Invigilation” item.



Here the display has been switched to a day view for clarity. There are 6 sequential slots in the Main Hall in the morning, then parallel slots in each of the 3 classrooms in the afternoon. Each has a red flag to indicate that the necessary staff have not yet been allocated. These flags are visible only to nominated exams officers - they don't appear to normal users.

3.11 Staff allocation

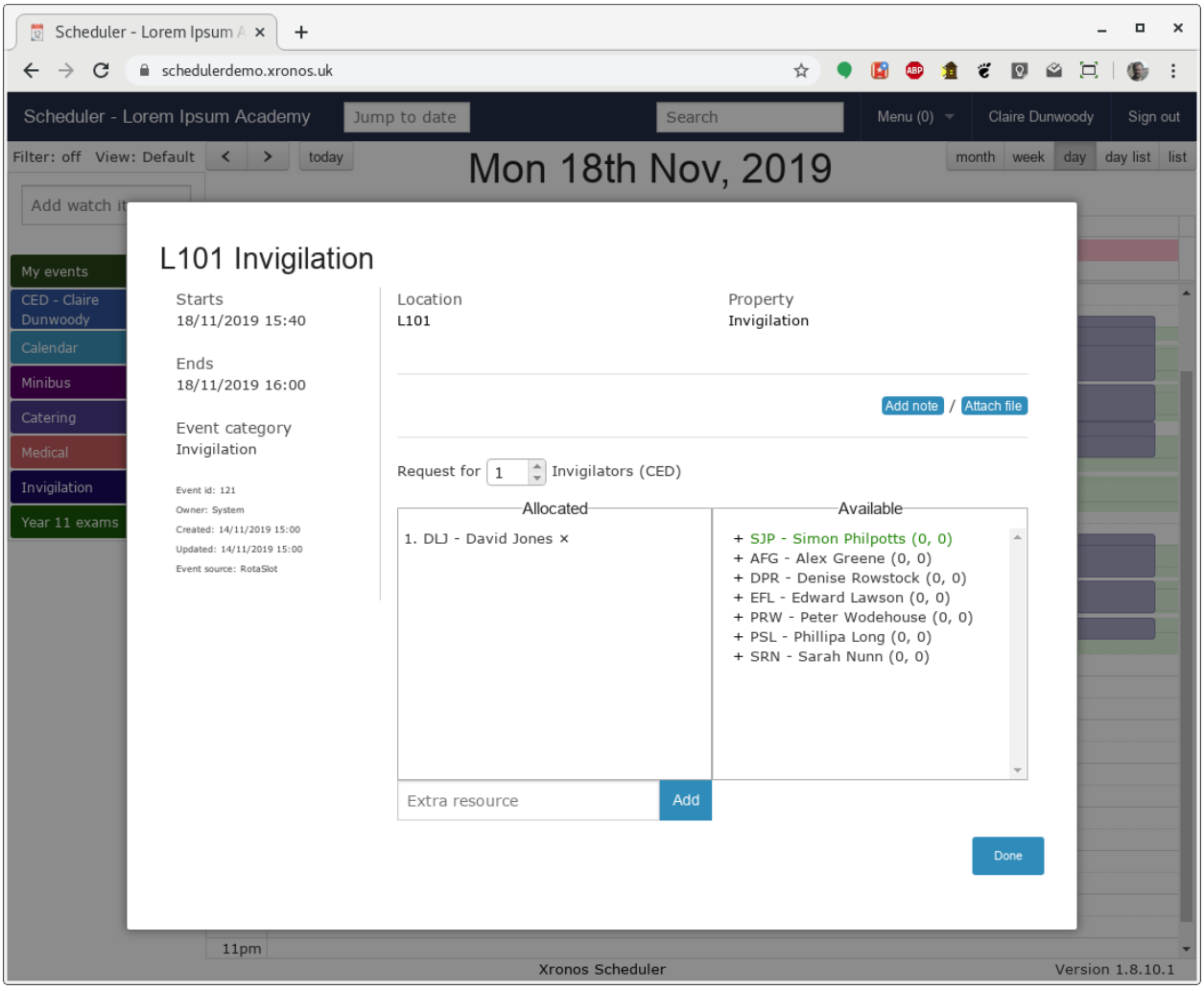
By clicking on one of these events, you can start allocating invigilators.



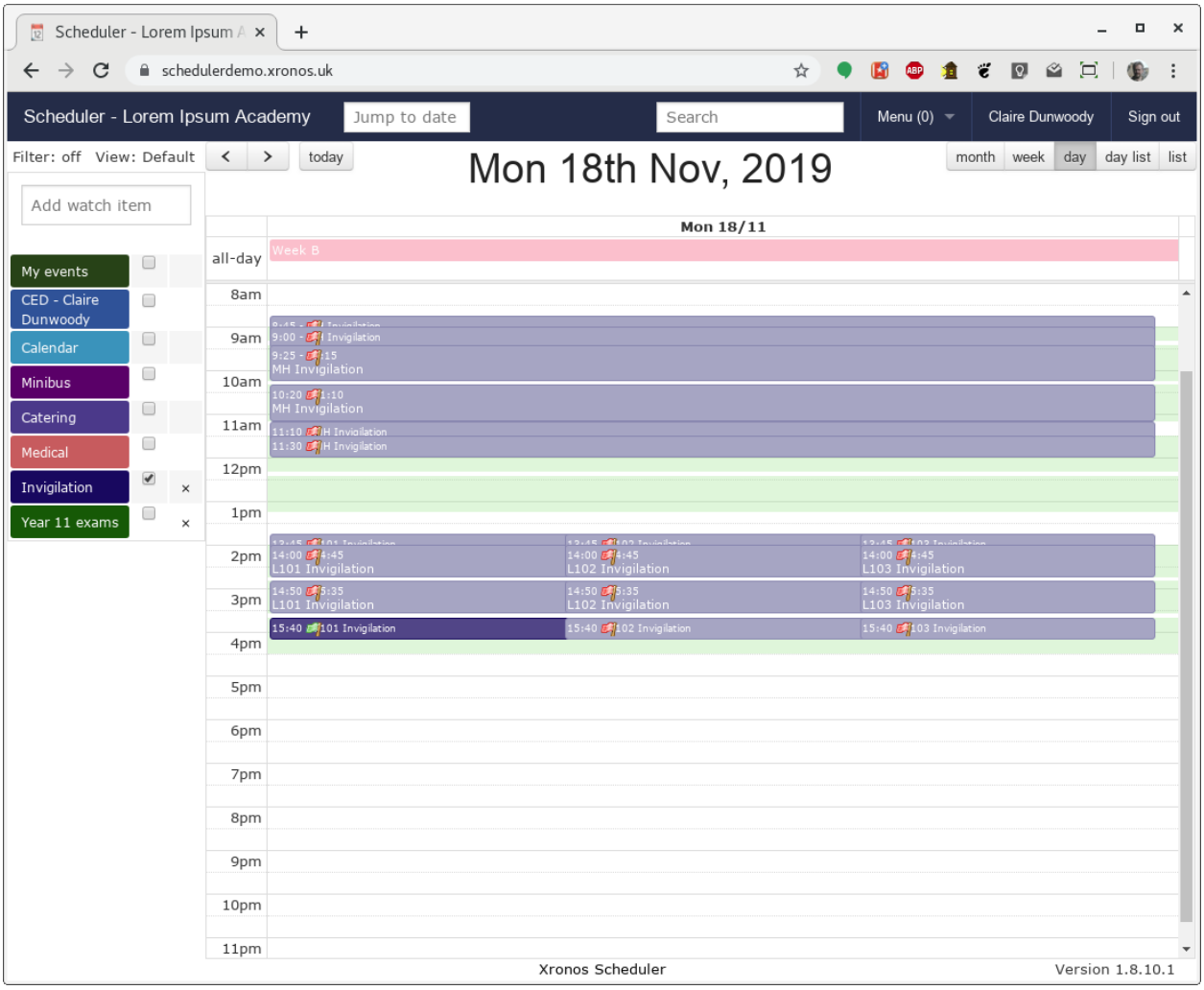
This slot wants 1 invigilator and none has so far been allocated. The box on the right lists free staff (those not currently teaching) and they have been sorted in order of suitability.

The names in green are staff members who *would* otherwise have been teaching at the time, and thus are first choice to do the invigilation. The rest of the staff listed are those who are free, and the numbers after their names show how many invigilations they have already been scheduled for - the first number is for the current day, and the second for the current week. Currently no-one has any invigilations so they're all 0.

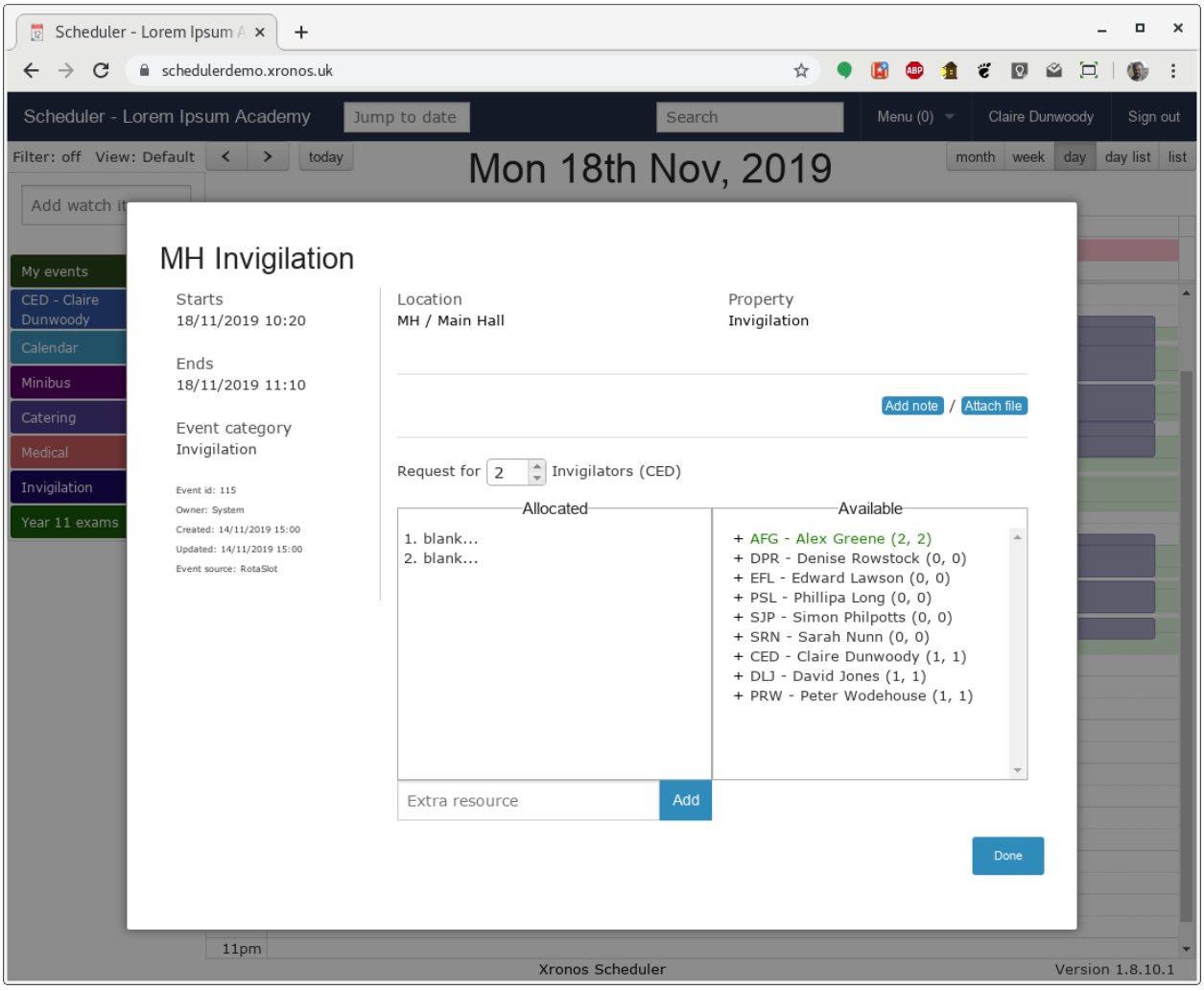
To choose someone, simply click on the + next to the name and they will move over into the "Allocated" box.



Click on "Done" and the dialogue will close. You then see that the flag on that particular slot has changed to green indicating it is complete.



Once a few slots have been filled, the staff listing gets more interesting.



In this listing, we can see that Alex Greene might be the first choice because he would otherwise have been teaching year 11, but he's already been given 2 invigilation slots today. Denise Rowstock has done none, so she might be preferable. (This demonstration school has an unfeasibly small number of staff, which is why they are getting so many slots each.)

Note: It can happen that you want to allocate someone to an invigilation slot even though the relevant individual isn't actually free at the time. For example, it might be a requirement to have the head of maths present at the start of a maths exam.

The "Extra resource" box at the bottom of the list of allocated staff allows you to override the system's advice and add any member of staff as an invigilator for the current slot.

The final decision is as always best done by someone who knows the school, but the program can help a lot in providing sorted lists.

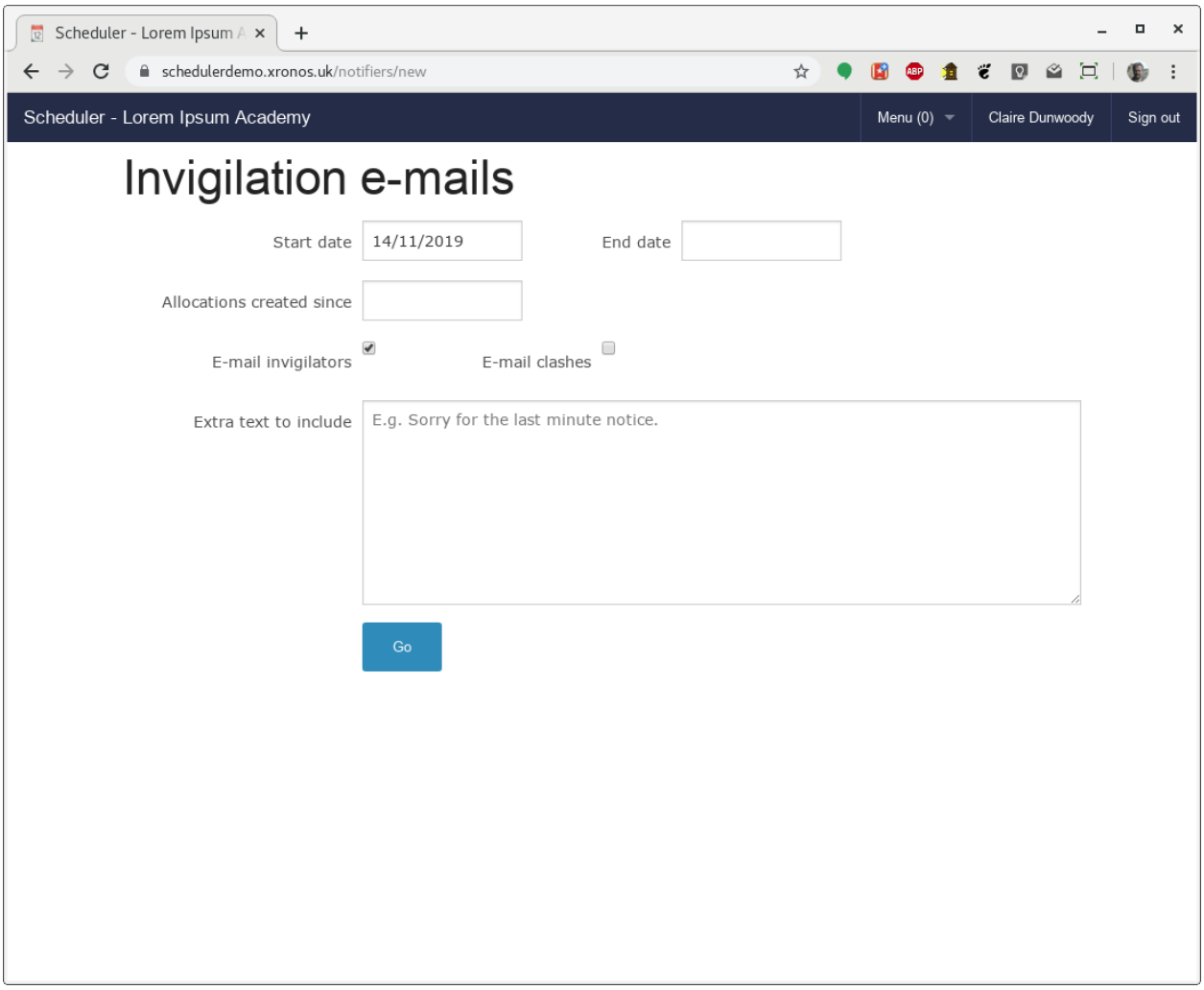
Hint: If you are going to allocate specific people to certain invigilation slots (.e.g the head of maths to start a maths exam) then do these allocations first, before you do the general just-need-four-people-who-are-free ones. That way they can be taken into account when calculating the loading for the later allocations.

3.11.1 Notification

Once the invigilation slots have been allocated they will appear immediately on the schedules of the individual members of staff.

They can also be printed out using the usual event reporting facilites, and individual e-mail notifications can be sent.

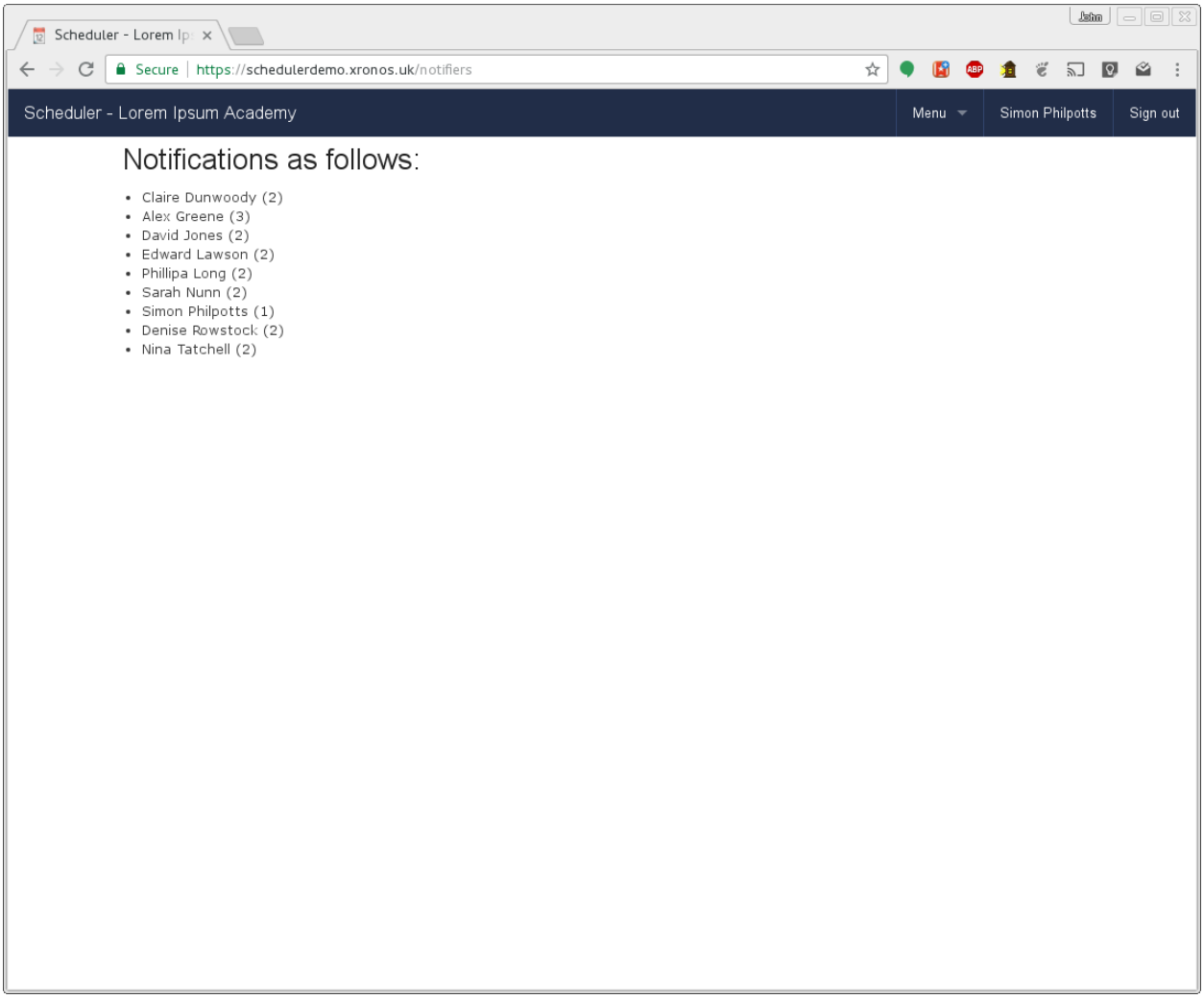
To send out e-mails, choose Menu => Invigilation => E-mails and you'll get a form like this.



The start and end date indicate the period for which you want to send out notifications, and the next field allows you to send out notifications only for invigilation slots added *after* a specified date - useful if you've been amending the allocations and want to notify just the amendments.

Finally, you can add a bit of free-format text if there's any extra message you want to put in.

Click on the "Go" button and you should see a screen much like this:



Your users will have been sent individual e-mails asking them to cover their particular invigilation slots.

3.11.2 Clashes

You can also check for clashes affecting your invigilation allocations. These can arise for two reasons:

- You've overridden the system's list of free staff to cover a slot
- Fresh events have been entered into the system after the staff were chosen.

To check for clashes, use Menu => Invigilation => Clashes and after a short delay you'll get a list any potential clashes on your screen.

CHAPTER

FOUR

ADVANCED GROUP EDITING

4.1 Overview

Scheduler differs from most school information management systems in that it understands the chronology of groups - whether they are teaching groups, form groups, or any other kind of group. Rather than just telling you what the membership of a group is now, Scheduler can tell you what it was at any date back to the group's creation, or if appropriate what it will be in the future.

Scheduler's display of events is fully integrated with this idea of groups where the membership varies over time. Thus you can, for instance, change the members of a football team from week to week, but viewing past matches for the team will still show the correct team for each individual date.

This level of control is potentially confusing for a naive user and so the basic form of group editing (as described in the Xronos Scheduler User Guide) hides it. When editing a group as described there, adding a member is taken to mean "Add this member from today's date forward", and removing a member is taken as meaning "Terminate this membership as of the end of yesterday".

Note: If you add and then remove a member on the same day, the effect is to delete the membership entirely. This is the only case where the simple group editing dialogue actually deletes a membership record.

This simple way of editing a group's membership is easy to understand, and slightly hides the fact that the system is keeping track of all the changes to the membership over time.

Sometimes however it is desirable to have a bit more control - to add a member to a group in advance, or for a known period (just one week perhaps), or to adjust a historical entry which is wrong. This is where advanced group editing becomes useful.

4.2 Database records

To use the advanced group editing feature, it is necessary to understand a little of how the groups are stored in the database.

Each group has one **Group** record, and then zero or more **Membership** records. Each of these has a start date, and optionally an end date.

The **Group** record holds the name of the group, whilst each **Membership** record links one member into the group.

The start date in the **Group** record is the date from which the group is to be considered as existing, whilst the start date in a **Membership** record is the date from which an individual membership runs. If a **Membership** record has a start date earlier than that of its parent **Group** then it will be treated as if it had the same start date as the **Group**.

If either type of record has no end date then it is considered as going on forever. Otherwise the end date records when the group or membership ended.

> **Warning:** The end dates are *inclusive*. That is, if a **Membership** has a start date of 21/2/2019 and an end date of 23/2/2019, then the member was a member of the group for three days - the 21st, 22nd and 23rd of February. This is slightly illogical from the programming point of view, but perhaps easier for the casual user to understand.

Two or more **Membership** records can exist linking a single item into a group, but not if they overlap chronologically. Thus a pupil could be a member of a football team from the 1st to the 20th of January, and then again from the 19th of February to the 3rd of March. Any attempt to create two chronologically overlapping **Membership** records specifying the same member and the same group will be rejected by the low-level validation code.

Membership records can also specify *exclusions* from a group. These are used to exclude individuals who would otherwise be a member of the group, and are most useful when handling nested groups. One might want a group of all the sixth formers who are not prefects. This can be achieved by creating a **Group** record, adding one **Membership** record to nest the group of sixth form pupils, and then a second **Membership** record with the inverse flag set. The system will then calculate who is left and treat that as the list of members of the group.

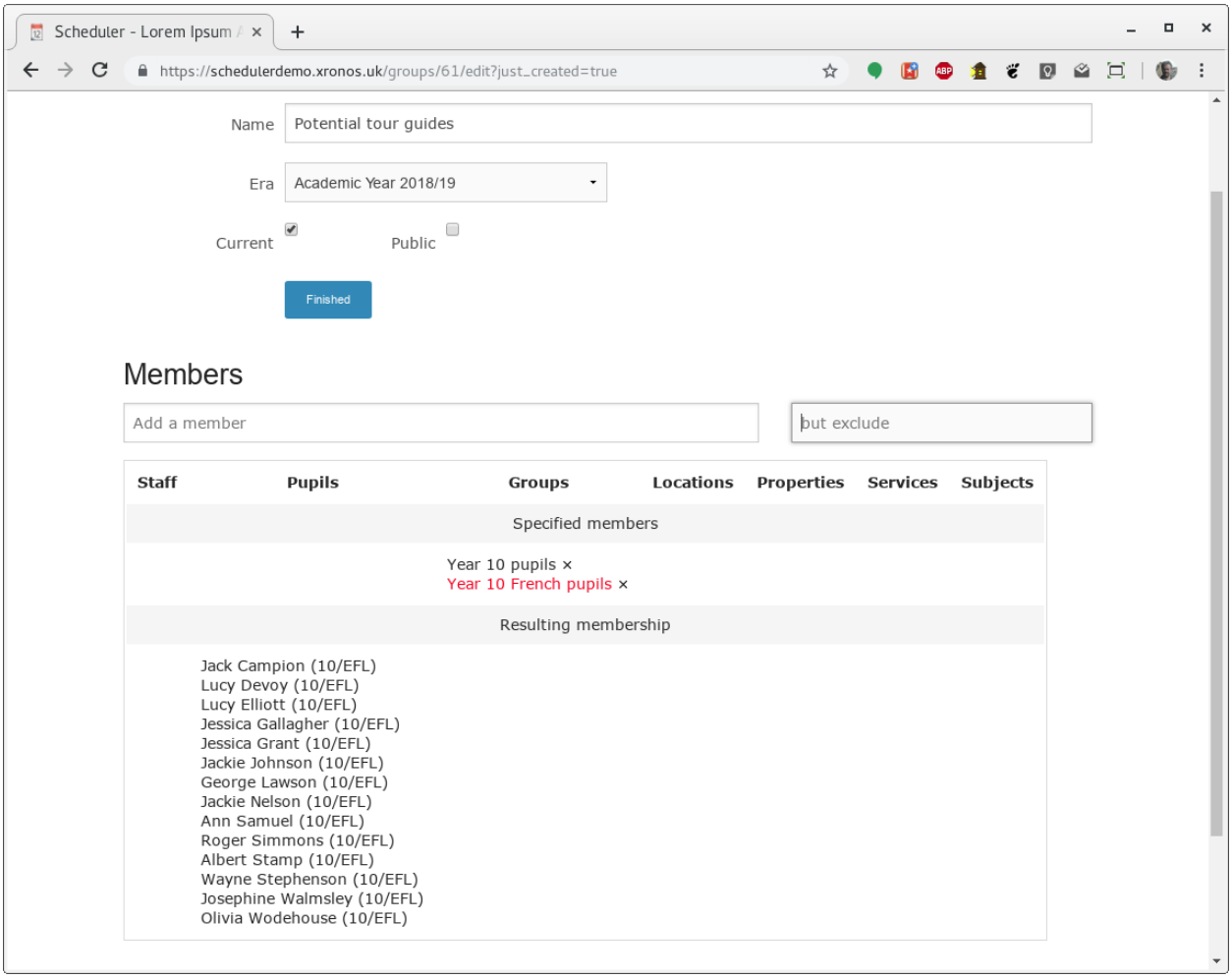
4.3 Permissions

Because it is possible to achieve confusing effects by perverse use of these features, the ability to do direct editing of **Membership** records is not open to all users. There is a special permission bit which needs to be set by a system administrator before an individual user can access the editing facilities described here.

4.4 Actual editing

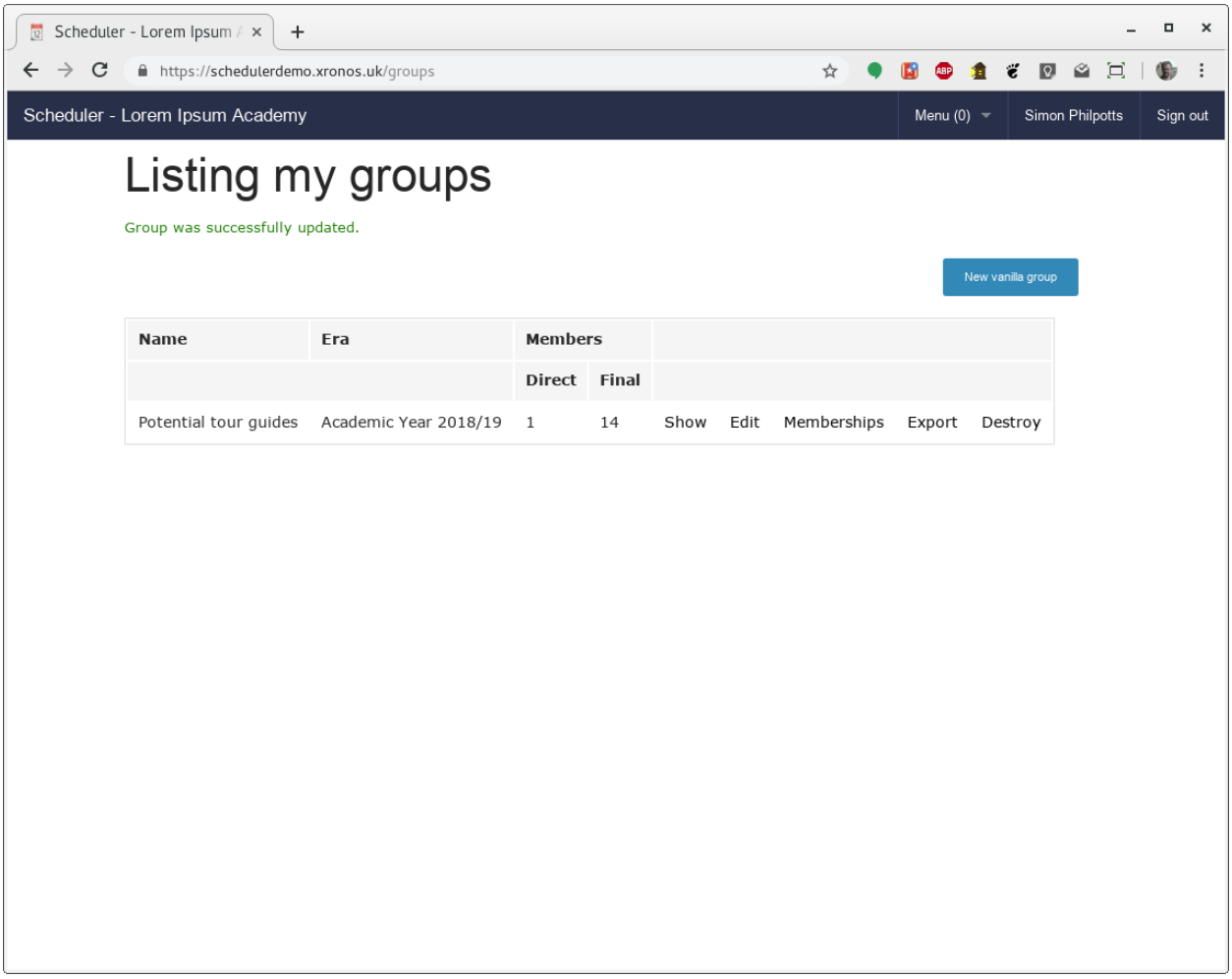
As an example of using the facility, consider the need to set up a group of all the pupils in year 10 who would be available to act as tour guides. The pupils who study French are off on a trip, and so won't be available for at least some of the time.

Using the standard group editing facilities, (as described in Xronos Scheduler User Guide) it is easy to create an initial group. This group specifies that it is to contain all the year 10 pupils, but not those who study French.

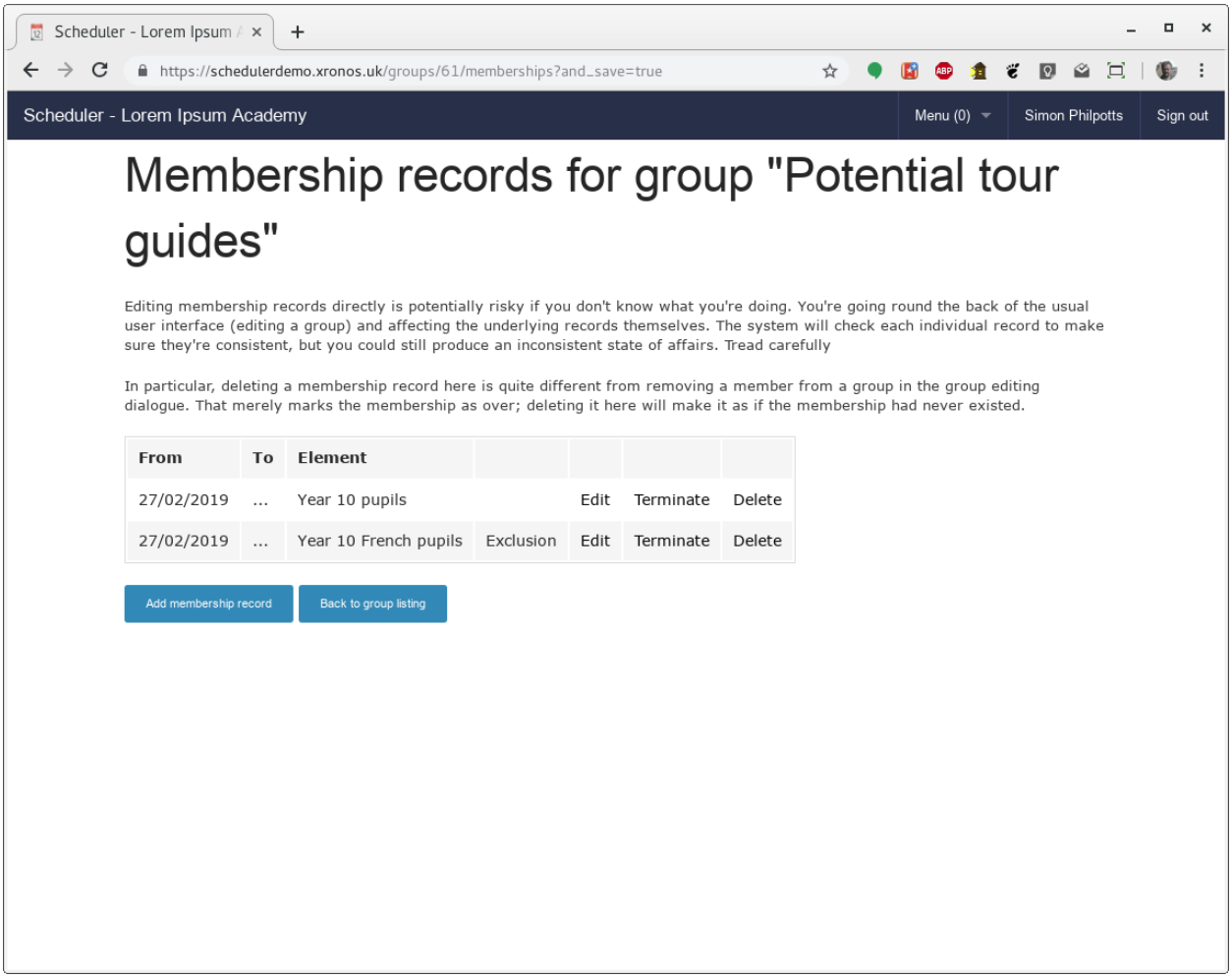


However, perhaps the French trip is away only for a few days? If we know those dates we can edit the group more precisely using the advanced editing facilities.

By clicking on the "Finished" button we can go back to the group listing, and note there the additional "Memberships" link.

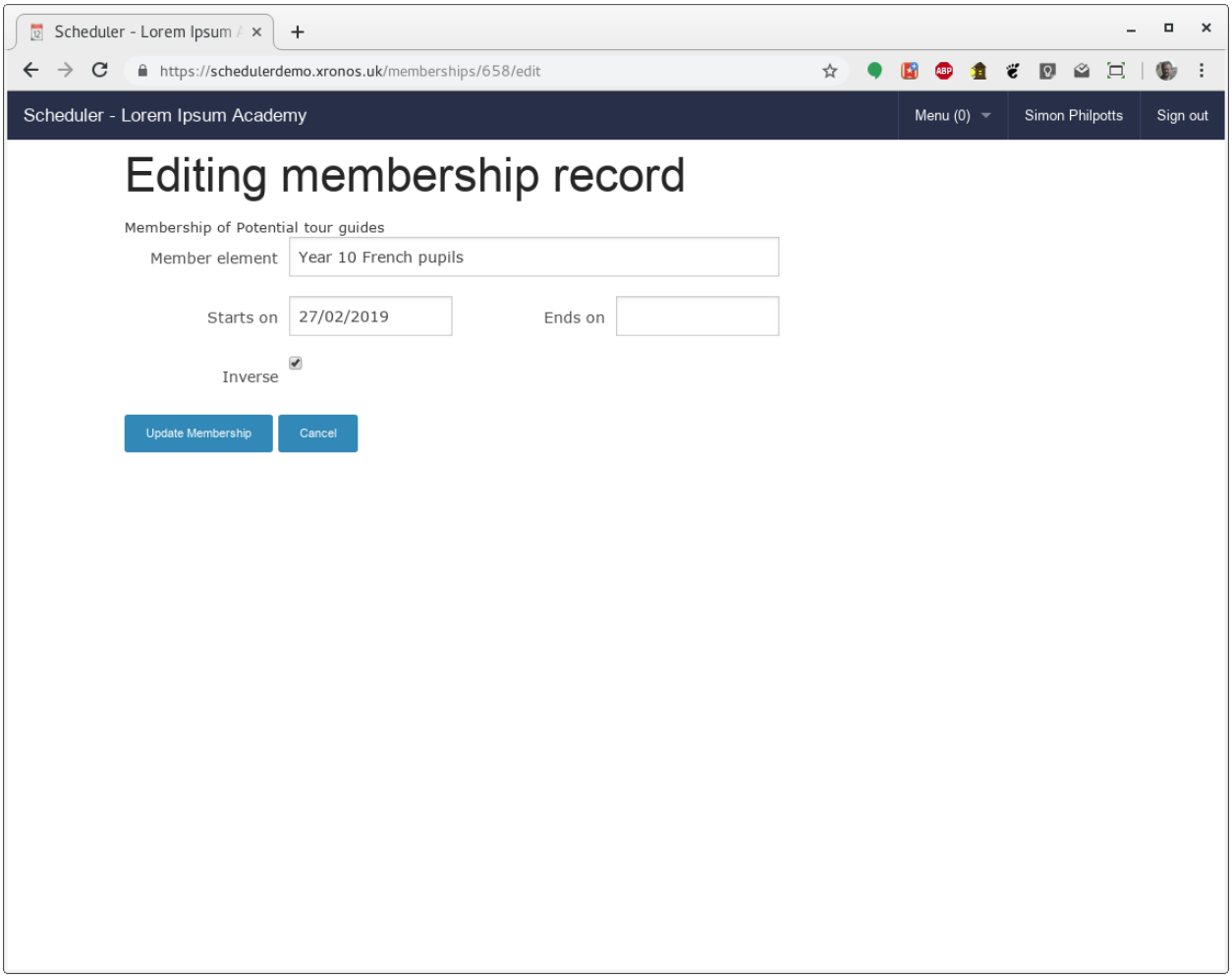


Clicking on that brings us to a listing of the actual **Membership** records which record the group's members.

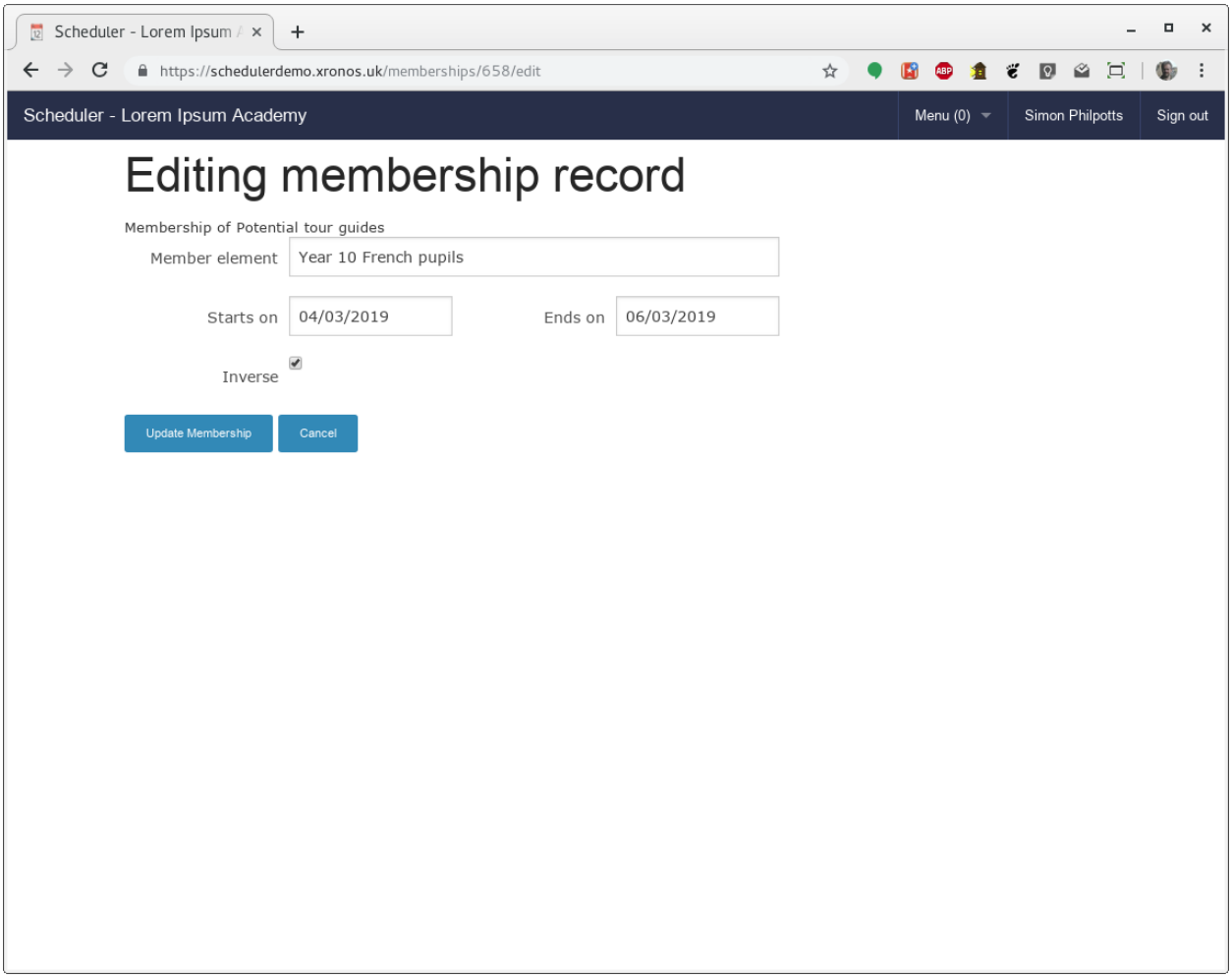


There are two **Membership** records listed, both of which start on the 27th of February and have no end date. One causes the inclusion of all the year 10 pupils, whilst the other is an *exclusion* (note the word "Exclusion" in one column) and causes the French pupils to be excluded.

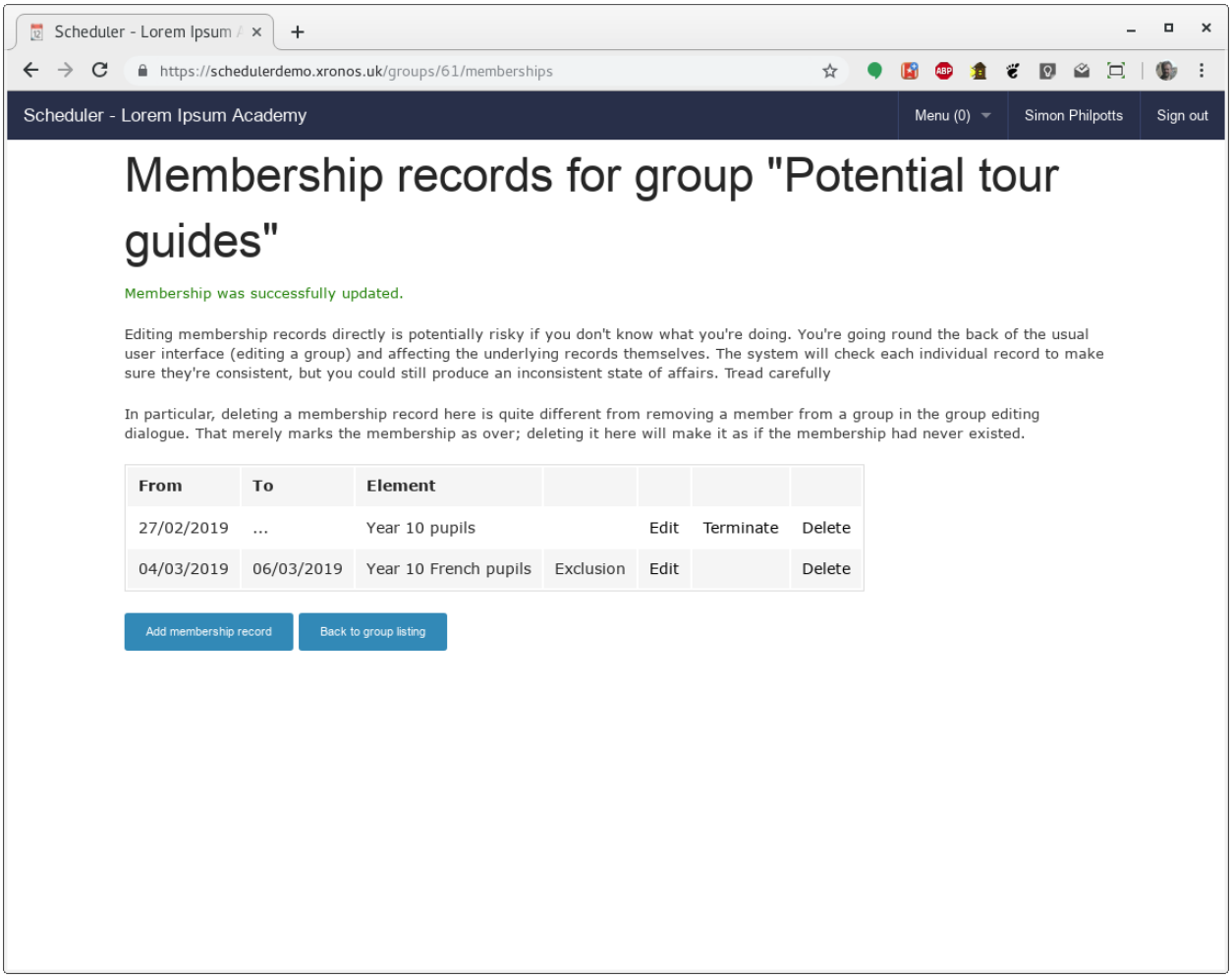
However, perhaps the French trip is away only from the 4th to the 6th of March. We can edit that second **Membership** record to include that information. Click on the "Edit" link for that record and we get a dialogue like this:



Click in the date fields and you get the usual date dialogue. We can change the start and end dates to match the actual dates of the trip.



And then save the modified record, giving us a listing like this.



The group could now be used in conjunction with, for instance, the "Find free" dialogue to find free tour guides on any given day. The system would use the appropriate membership on each chosen day, automatically avoiding the use of the French pupils on the three days when they are absent.

4.5 Invalid membership records

Each time you try to save a membership record, the system will perform some basic validation on it. The following errors will cause your update to be rejected.

- No member specified
- No start date specified
- Dates back to front

  The "Ends on" date can't be before the "Starts on" date
- Record not unique

  You can't create two **Membership** records for the same group and member whose date's overlap.
- A group can't be a member of itself

  You can't create a **Membership** record which makes a group a direct member of itself.

Note: Although you can't make a group a direct member of itself, you can create a loop - A is a member of B is a member of C is a member of A. You can even make some of the **Membership** records in that chain be exclusion records. There's no mileage in it however - the group processing code simply stops following the chain when it hits a group which it has seen before.

CHAPTER

FIVE

AD HOC LESSONS

5.1 Purpose

Scheduler uses the term "Ad Hoc Lessons" to refer to lessons where pupils are taken out of their normal timetabled lesson for some kind of extra tuition. Typically this will be an instrumental music lesson, learning support or something similar.

It is generally desirable to rotate these kinds of lessons so pupils don't miss the same subject more often than is necessary. If, for instance, an instrumental music lesson makes a pupil miss a maths lesson one week, then the same pupil should not miss another maths lesson the following week.

The person responsible for scheduling these Ad Hoc lessons therefore needs access to all the pupils' individual timetables, plus a record of what lessons they have already missed. Scheduler aims to assist with this by providing all the relevant information in one place.

Once a suitable schedule for the term (or half term, or whatever period you choose) has been devised it can be published automatically to both pupils and relevant teachers.

5.2 Pre-configuration

Initial configuration of an Ad Hoc category will be done by your system administrator who will also appoint one or more controllers for the category. This guide assumes you have been appointed as a controller of an Ad Hoc category for the scheduling of peripatetic music lessons.

You can change most things about the category but a couple of them will require intervention by your system administrator because they are global items within the system.

- The overall day shape - what hours there are in the morning and afternoon - is set by your administrator. You can then define more specific availabilities for each of your music teachers.
- The list of subjects potentially available - e.g. Viola, Violin, Mandolin - is again set by the system administrator.

If you are the system administrator and want to set up an Ad Hoc category, then see the Scheduler Admin Guide

Once the system administrator has created the Ad Hoc category, you will find you can access it through Menu => Ad Hoc t/ts => Music Lessons.

You can work through all of the following on the Scheduler Demo System by logging in as Simon Philpotts (SJP).

5.3 Overview

In order to use the Ad Hoc lessons facility, you will need to think about a number of things to set up. Most of this needs to be done only once - the first time you use it - and then can be carried forward into subsequent uses.

- Cycles - a cycle is a period of time in which you schedule lessons. It will be whatever unit you usually use - typically a term or half a term.
- Subjects - the subjects being taught in your Ad Hoc lessons.
- Staff - the people doing the teaching. These will generally have been imported automatically from your MIS.
- Pupils - pupils are entered linked to a subject and a member of staff, creating a requirement for a lesson.
- Allocations - for each cycle you can create one or more allocations. These are attempts to schedule the required lessons satisfactorily. You can have more than one because you might want to try different allocations until you find one you like.
- Implementation - once you are happy with an allocation, you can implement it. This has the effect of publishing the lessons you have scheduled and injecting them into the schedules of both staff and pupils. If you later decide to implement a different allocation, all the lessons created by the first one will be removed and the new ones will be put in their place.

Note: If you have implemented an Allocation and later decide you want to remove all the lessons again, simply create a new blank Allocation for the same Cycle and implement that one. Doing that will delete all the lessons from the first Allocation (from the published schedule - not from the Allocation itself) and not create any replacement ones.

5.4 Cycles

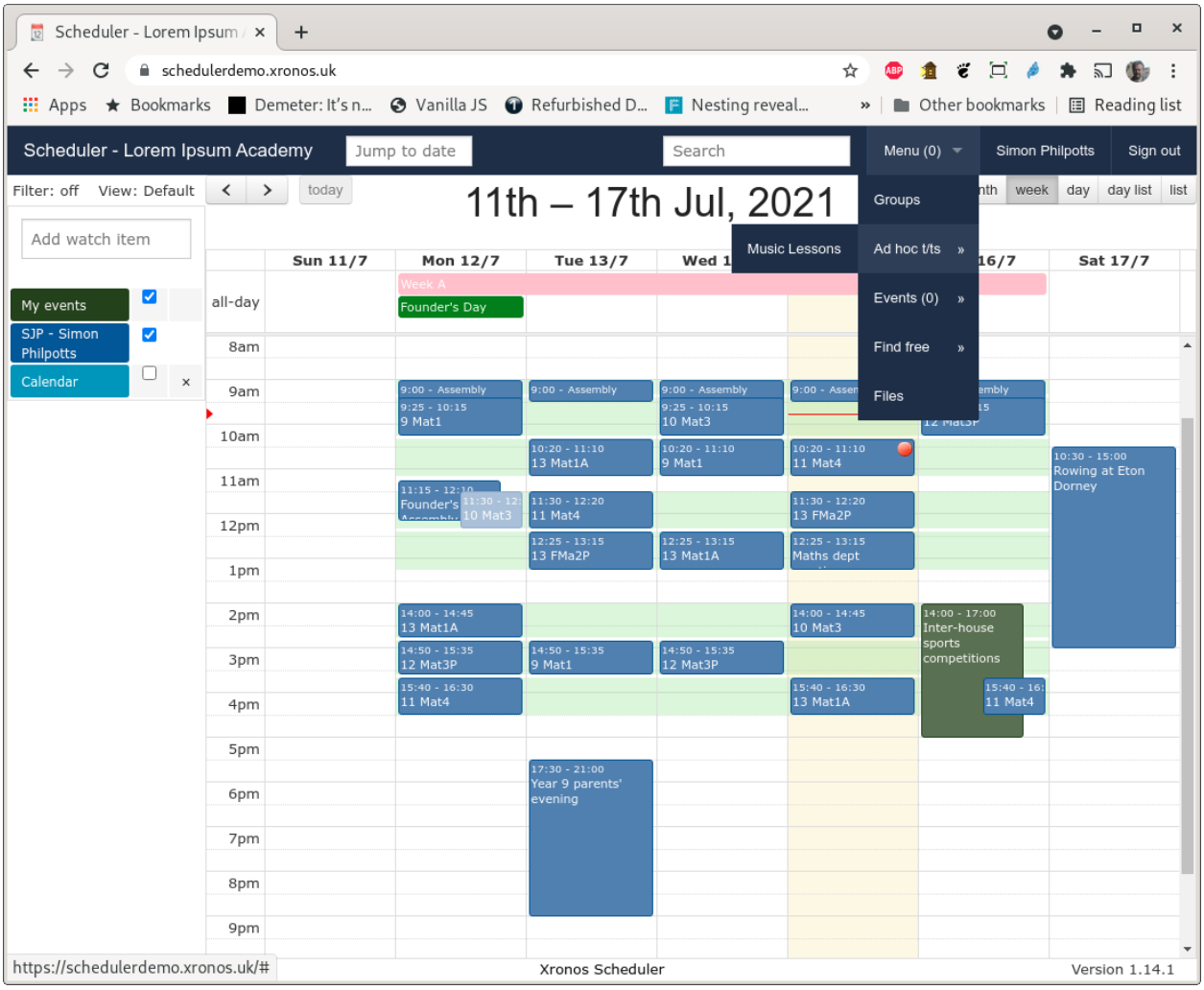
A cycle is whatever period of time you want to do your scheduling over, typically a half term or a whole term.

The first cycle which you set up is the most laborious because you need to enter all the subjects, staff and pupils for it. For subsequent cycles you can choose to copy over information from a previous one.

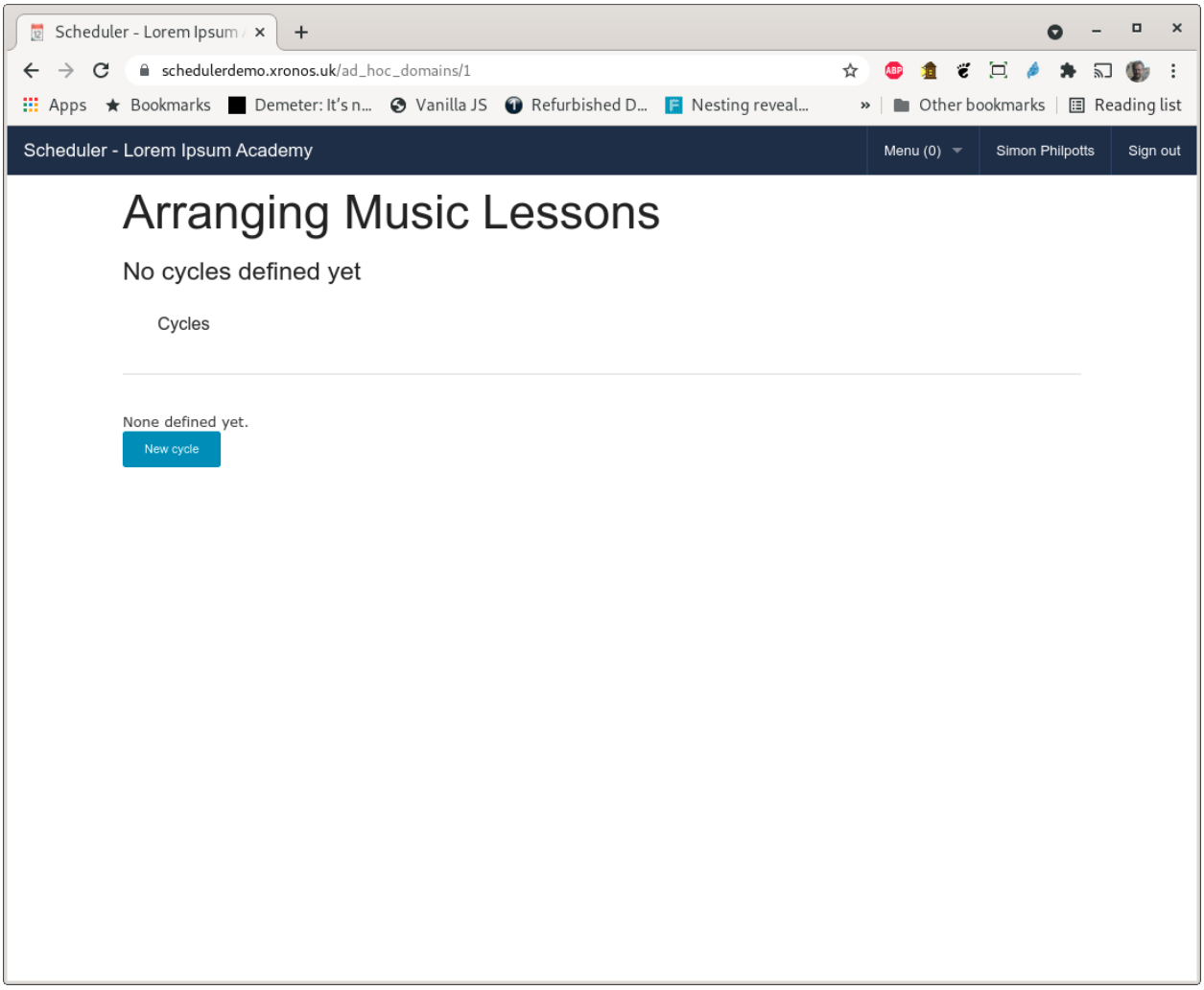
Thus, having set up a cycle for the first half of a term, you would probably want to copy over everything - subjects, staff and pupils - into the cycle for the second half of term, making any required changes manually afterwards.

On the other hand, at the start of a new academic year, you would probably copy over just subjects and staff, and enter all the new pupils afresh.

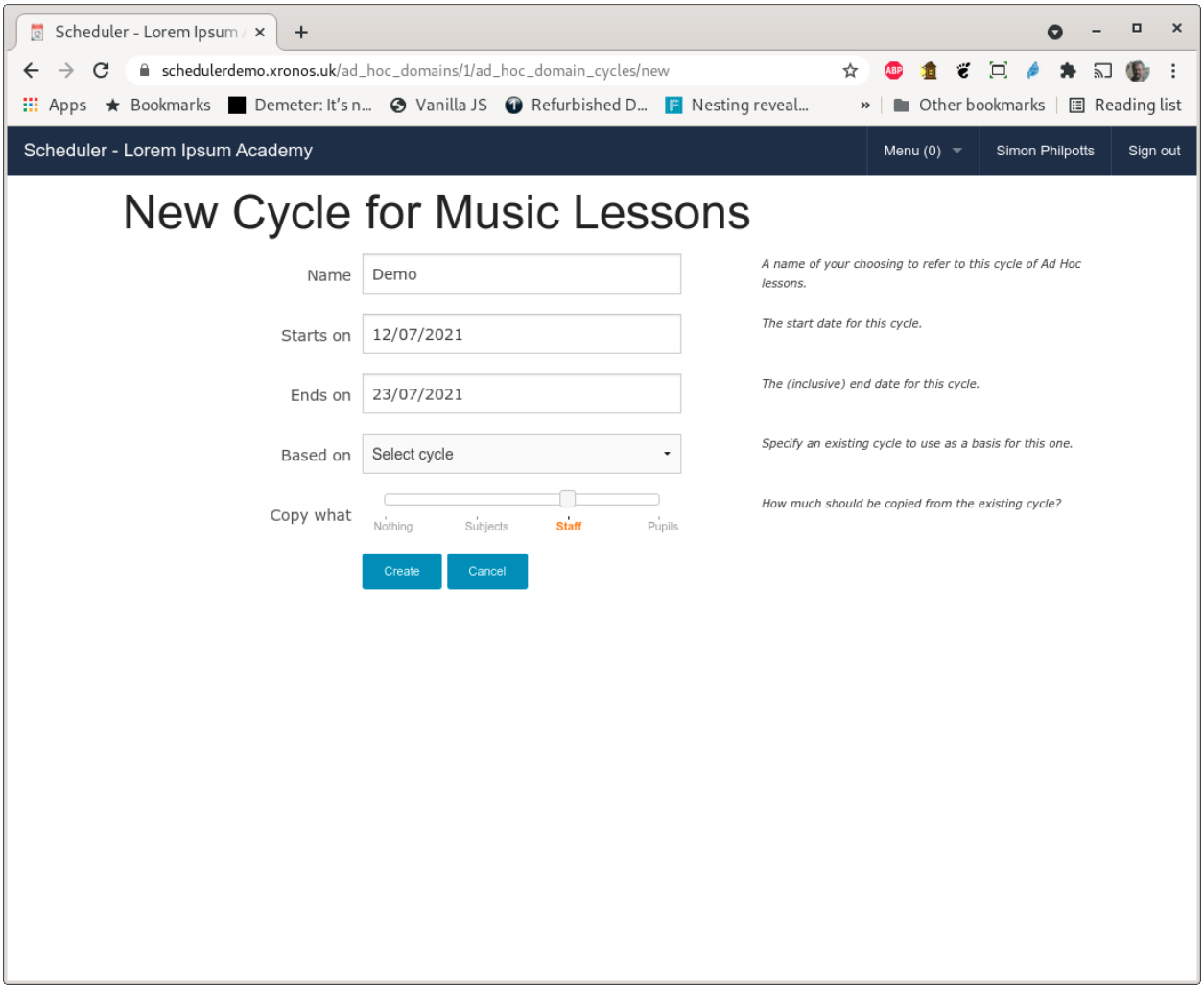
Assuming your system administrator has set you up as a controller for your Ad Hoc category, you should find you have an extra menu item like this:



Click on the “Music Lessons” menu item and you will see a screen like this.

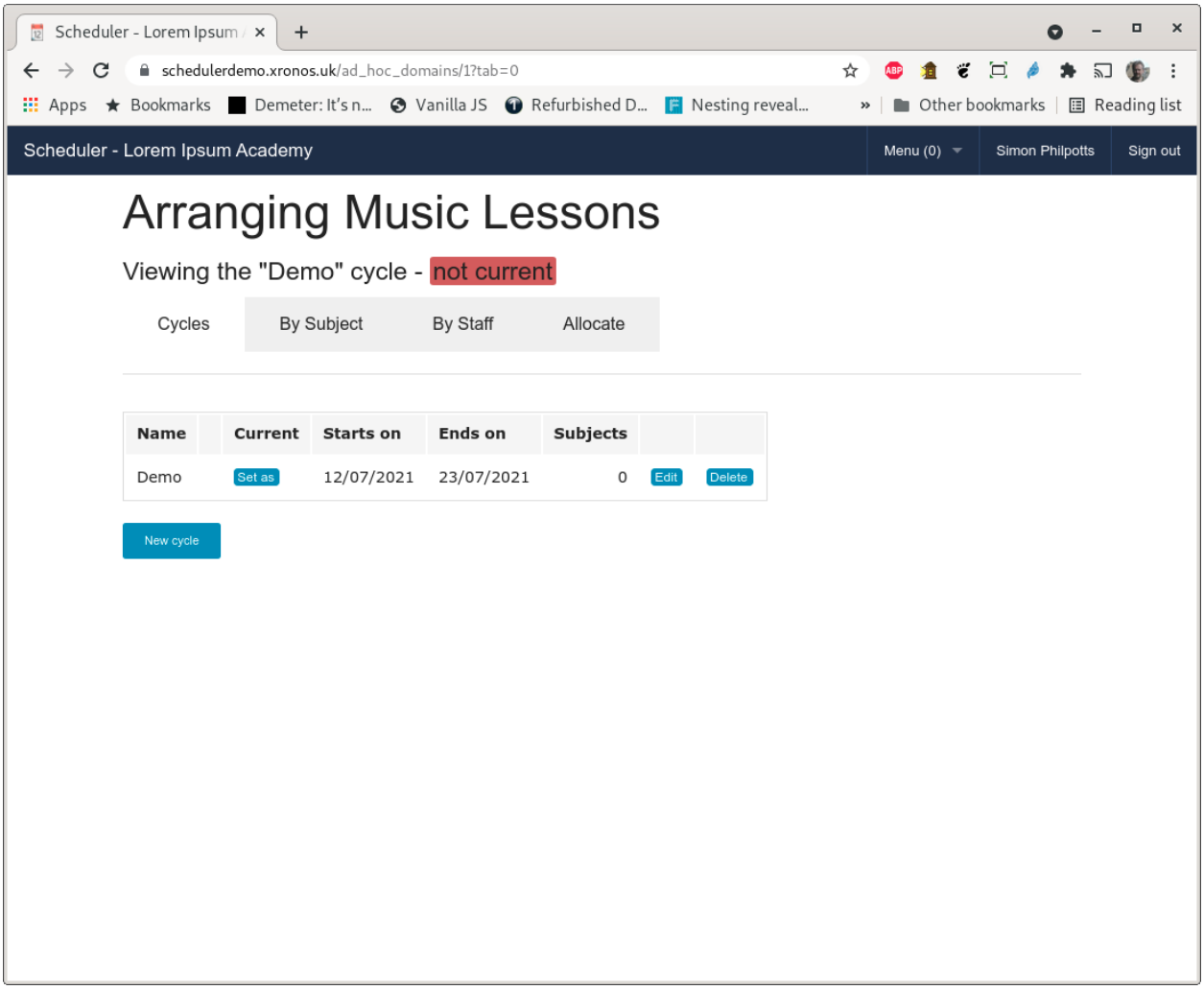


Currently there are no Cycles defined so click on the "New cycle" button and fill in the fields.

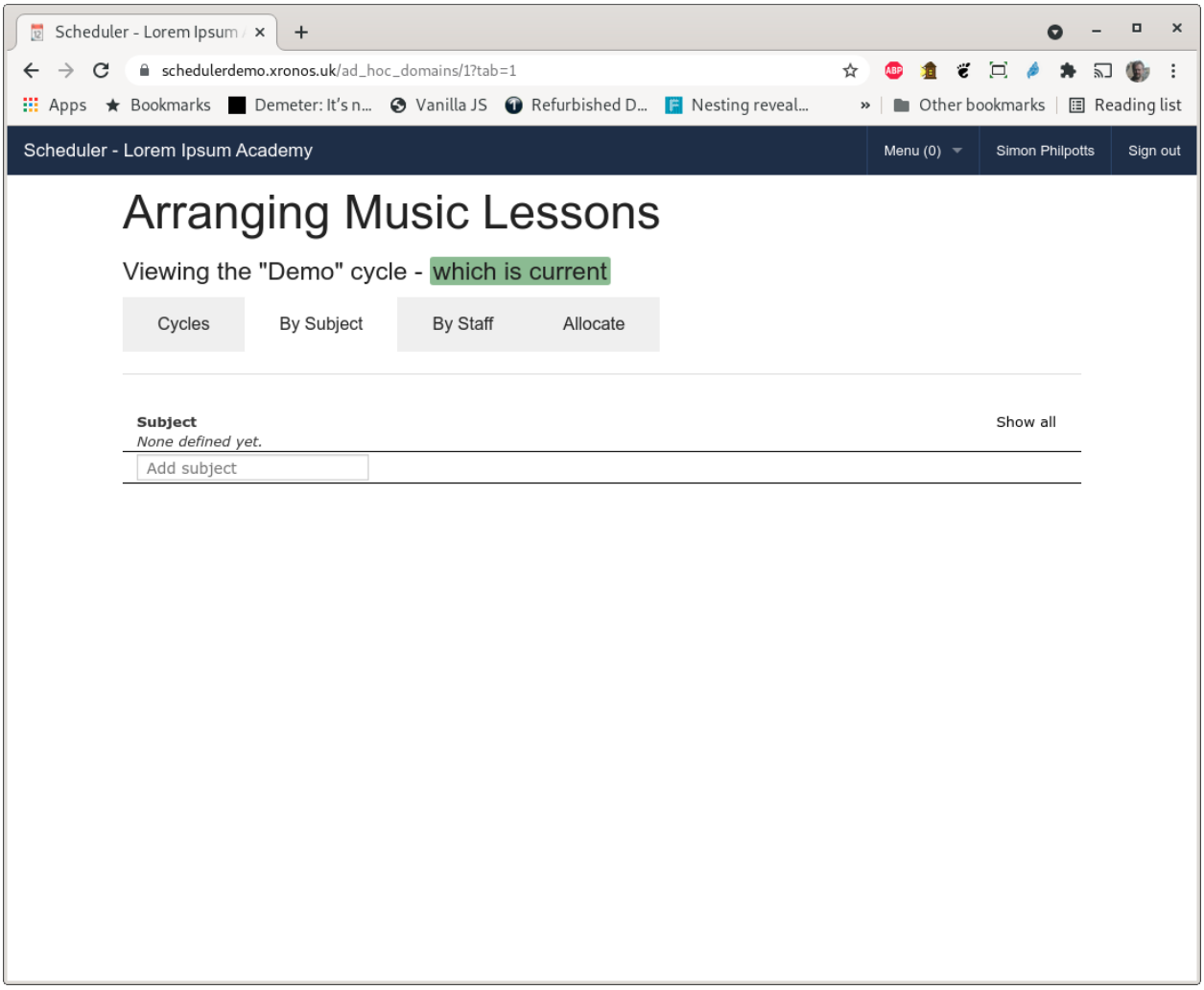


Note: If you are working through this example on the Scheduler Demo System then as dates use the start date of your current week and the end date of the following week. The data in the demonstration system are regenerated every night and roll through the year, always appearing in whatever is the current week.

We can't select anything in the "Based on" field because this is our first Cycle. If we were doing the second half of a term then this is where we would select a Cycle on which to base our new Cycle, and specify how much of the previous one was to be carried over.



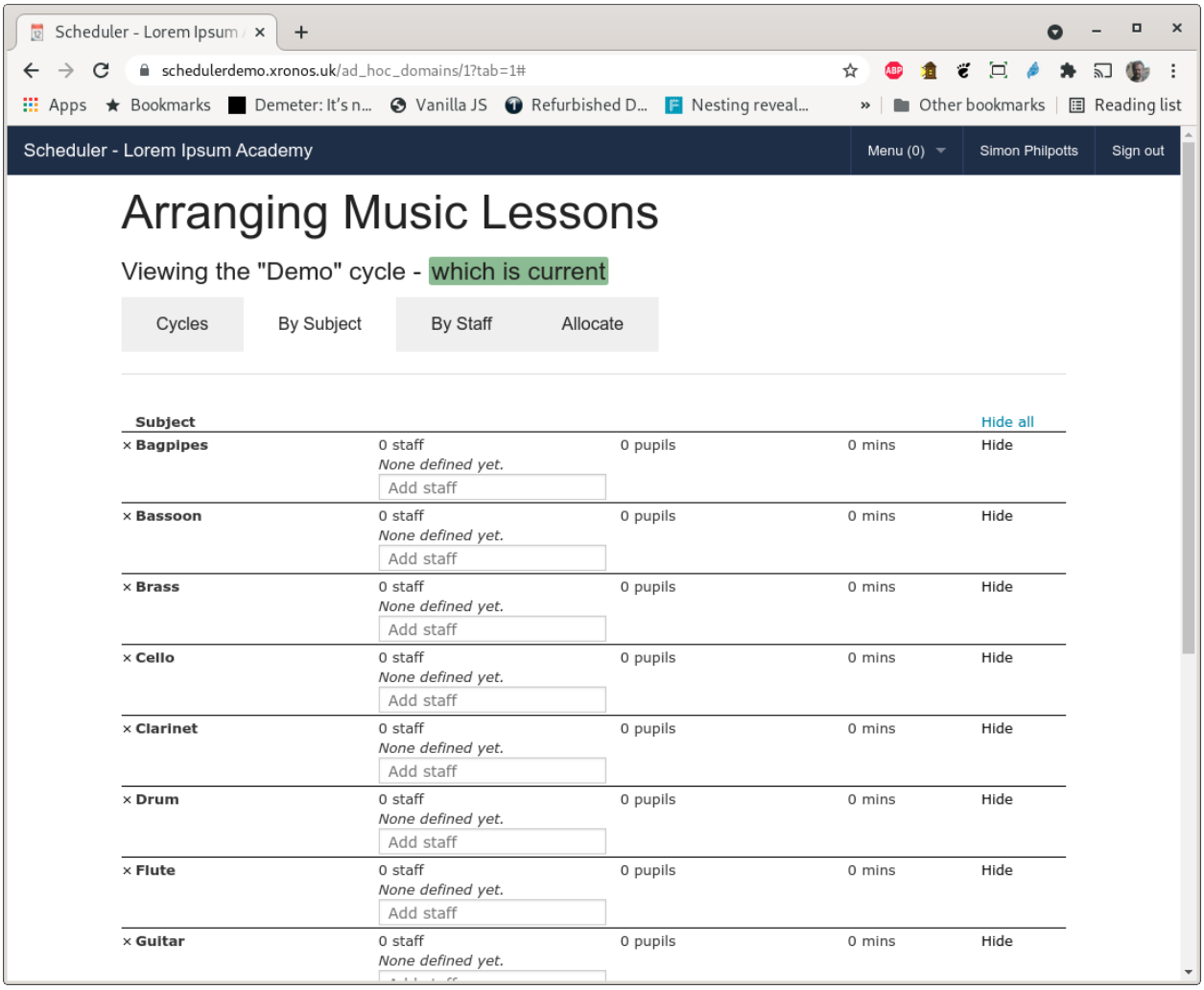
Note that the above cycle is currently flagged as "Not current". Because you can have many cycles in existence at once, Scheduler has the concept of a "current" one, which simply means the one which it will assume you want by default. Click on the "Set as" button next to the name of the cycle to make it the current one.



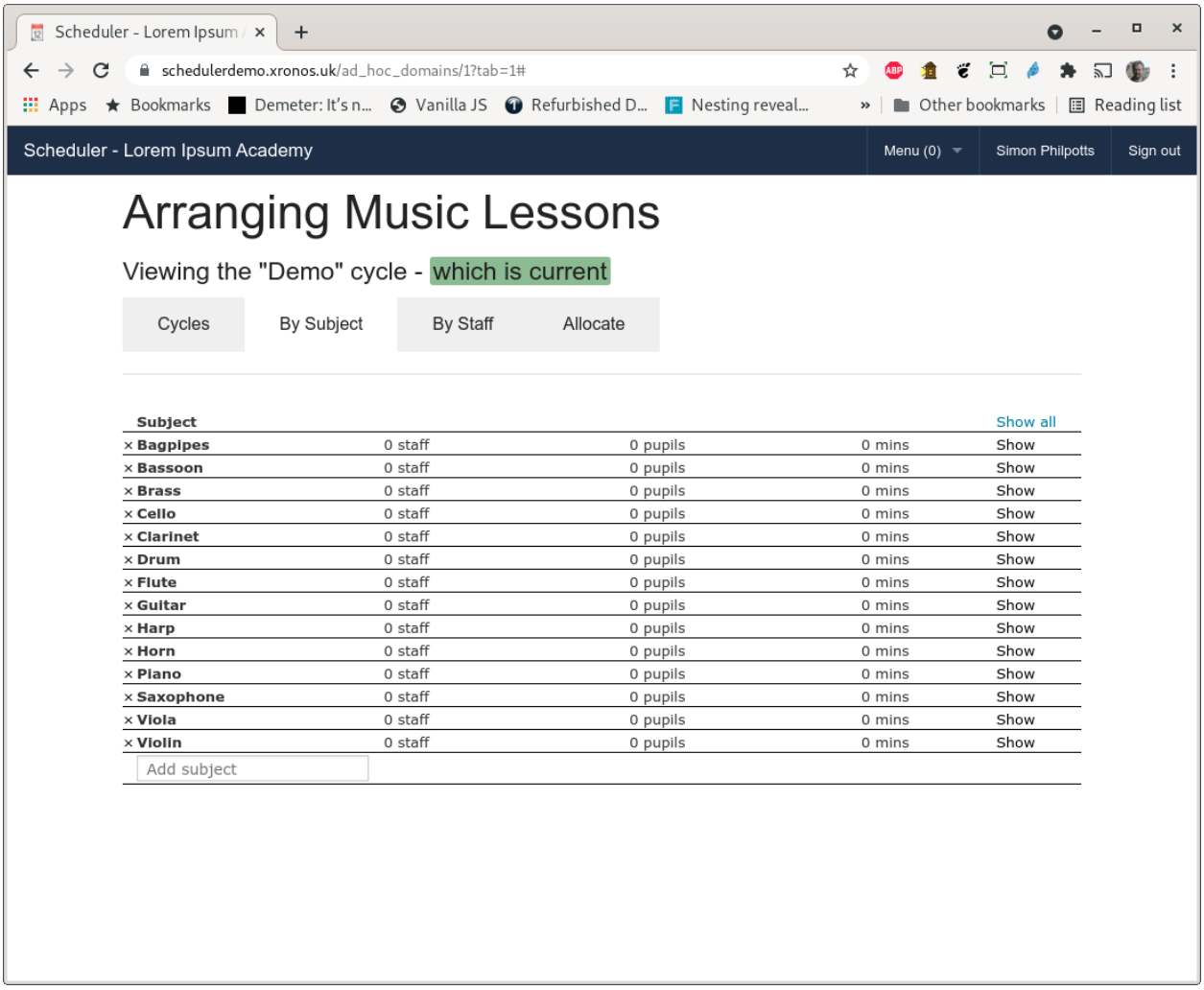
The cycle is now flagged as current and our view has been moved on to the second tab of the page, headed "By Subject". You can always go back to the first tab - Cycles - to choose to work with a different cycle.

5.5 Subjects

Next we enter in the subjects which are due to be taught in this cycle. The necessary global subject records must already exist in the Scheduler system, but we're now linking them to staff and pupils. Simply type the name of a subject in the "Add subject" field and press Enter. Continuing doing this until all your subjects are listed.



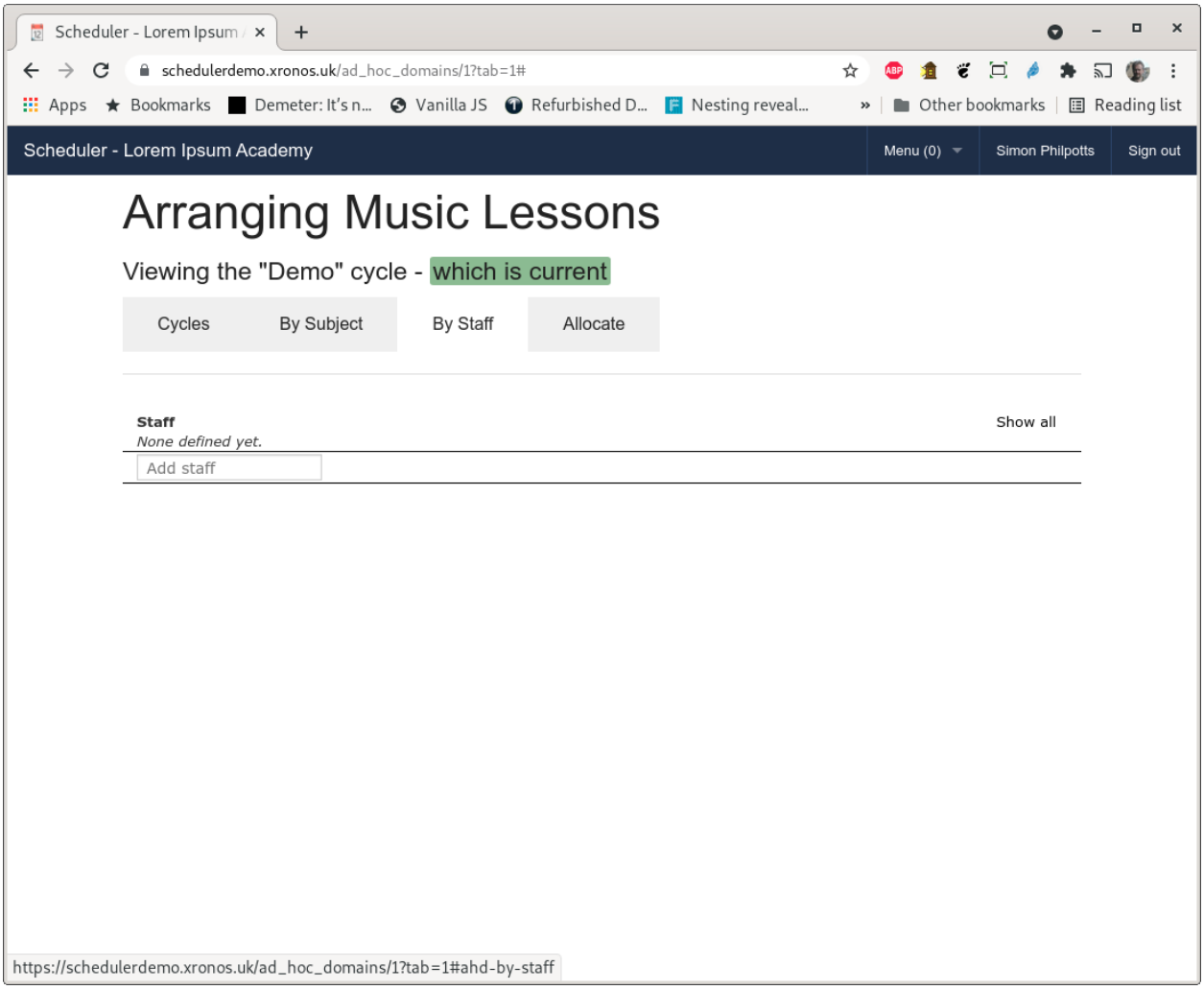
The list can get a bit long for the screen so buttons are provided to fold the display. Click on "Hide all" to reduce it.



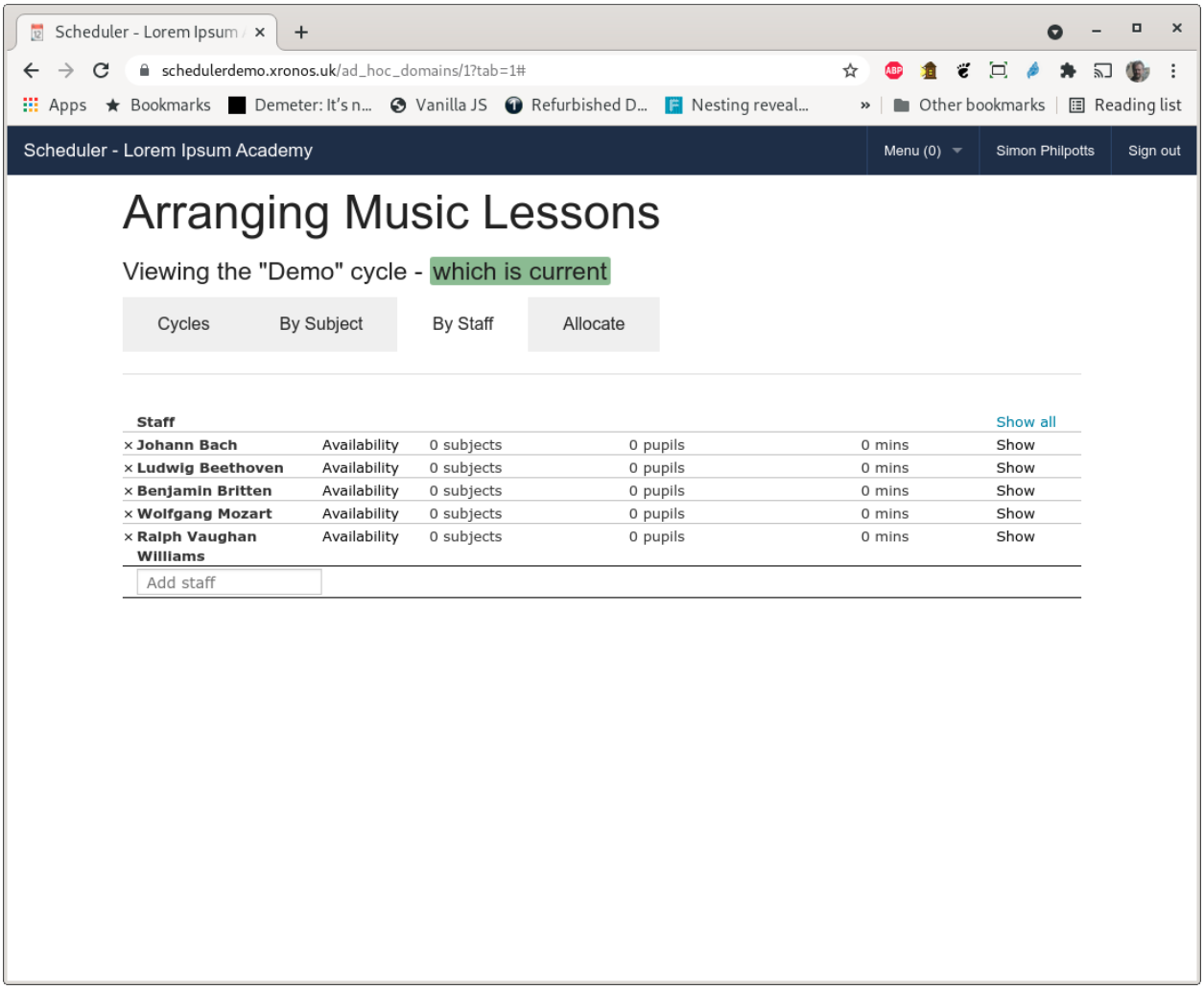
5.6 Staff

Click on the next tab - "By Staff" to start entering staff information.

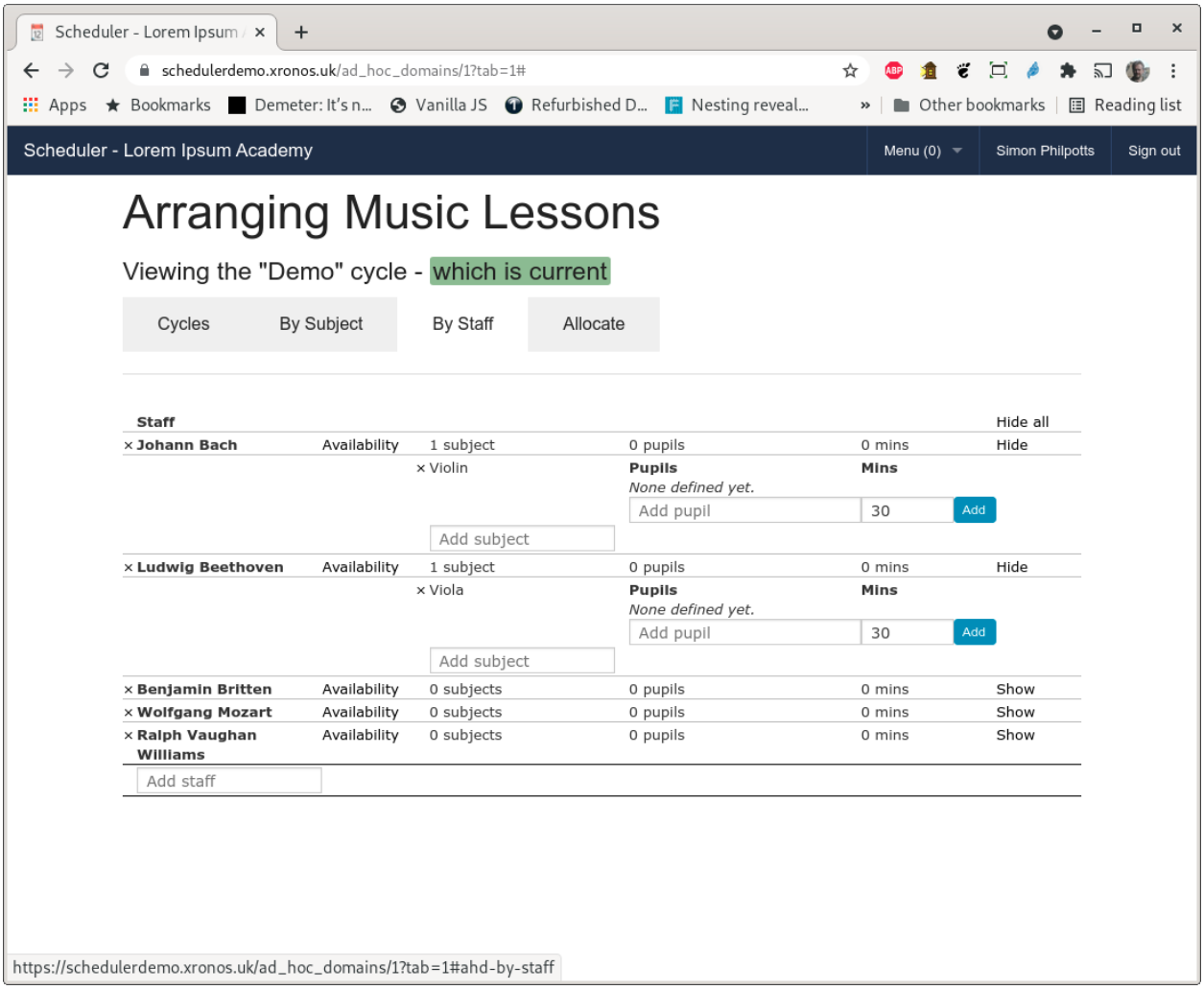
Note: It's entirely up to you whether you enter subjects and then staff, or staff and then subjects. You can also then link them together by entering a staff member name under a subject heading, or by entering a subject name under a staff member's heading. Whatever is easier for you - it all ends up in the same place. You can switch backwards and forwards between the two tabs and you will find all the information entered on one is visible on the other.



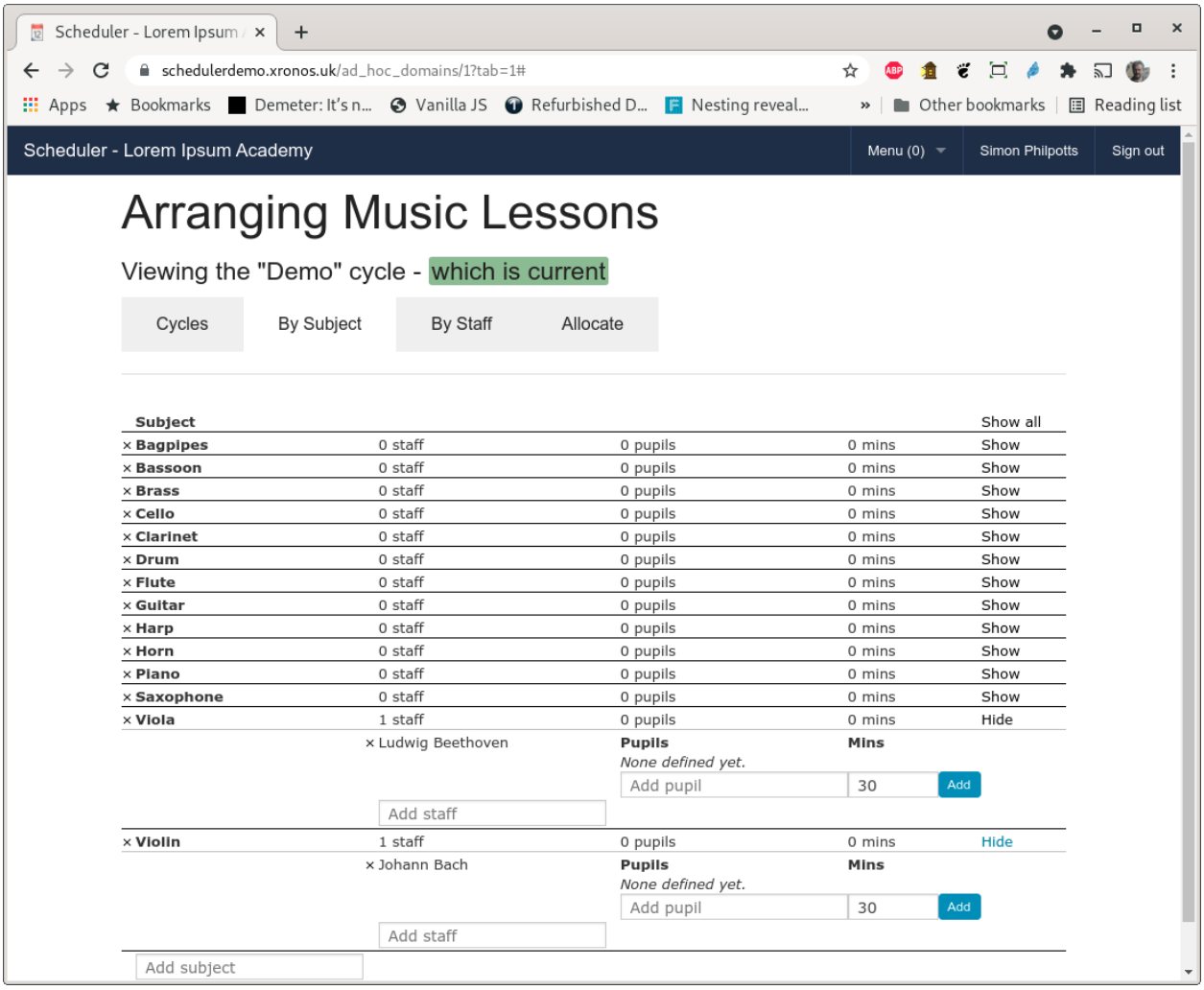
Enter the names of staff who are going to teach your Ad Hoc lessons in exactly the same way as you did for subjects.



For the purpose of this example, we will have just J.S. Bach teaching Violin and Ludwig van Beethoven teaching Viola.

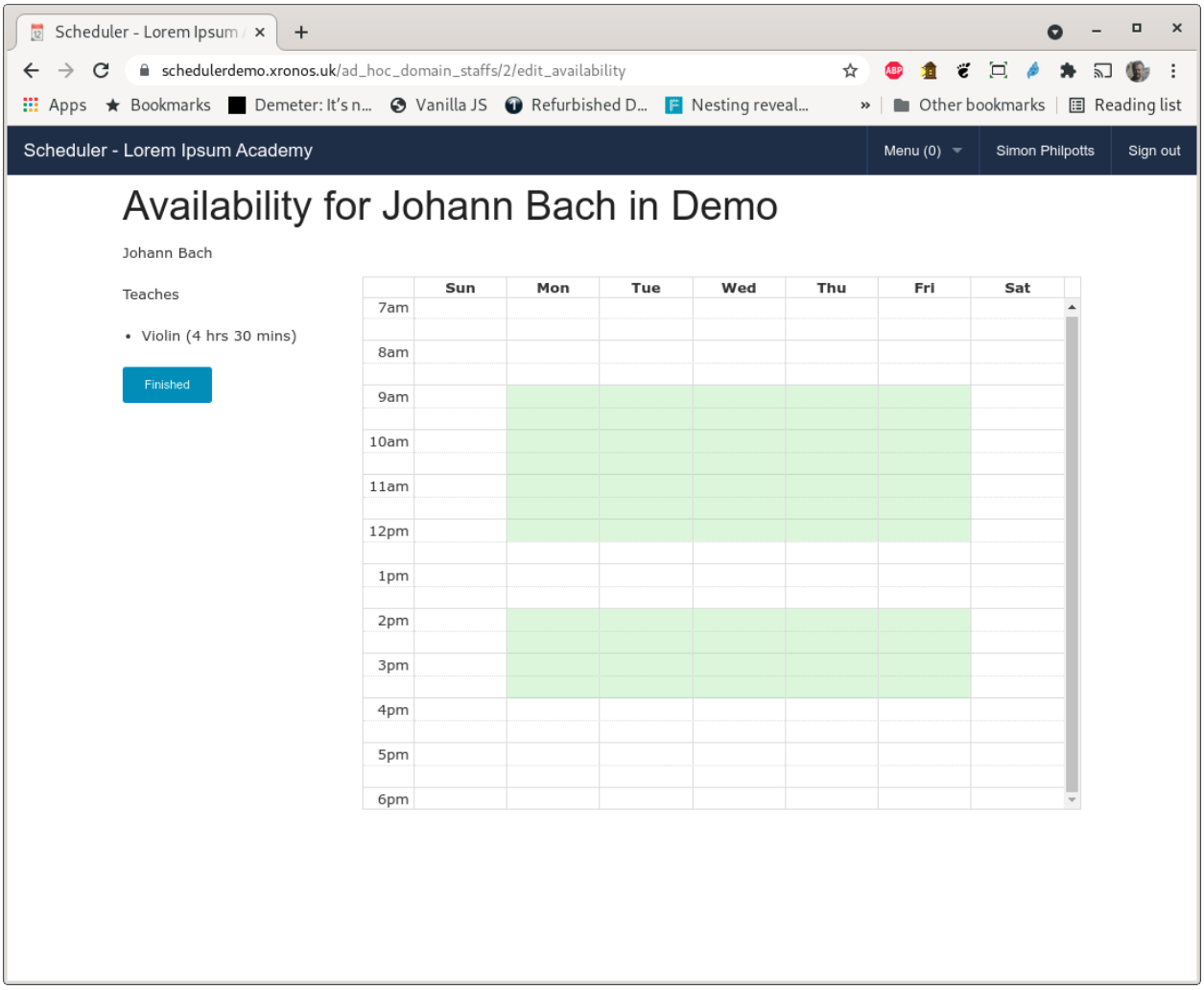


Although I have entered the subjects under the staff headings, if we flip back to the "By Subject" tab we find exactly the same information there.



5.6.1 Availability

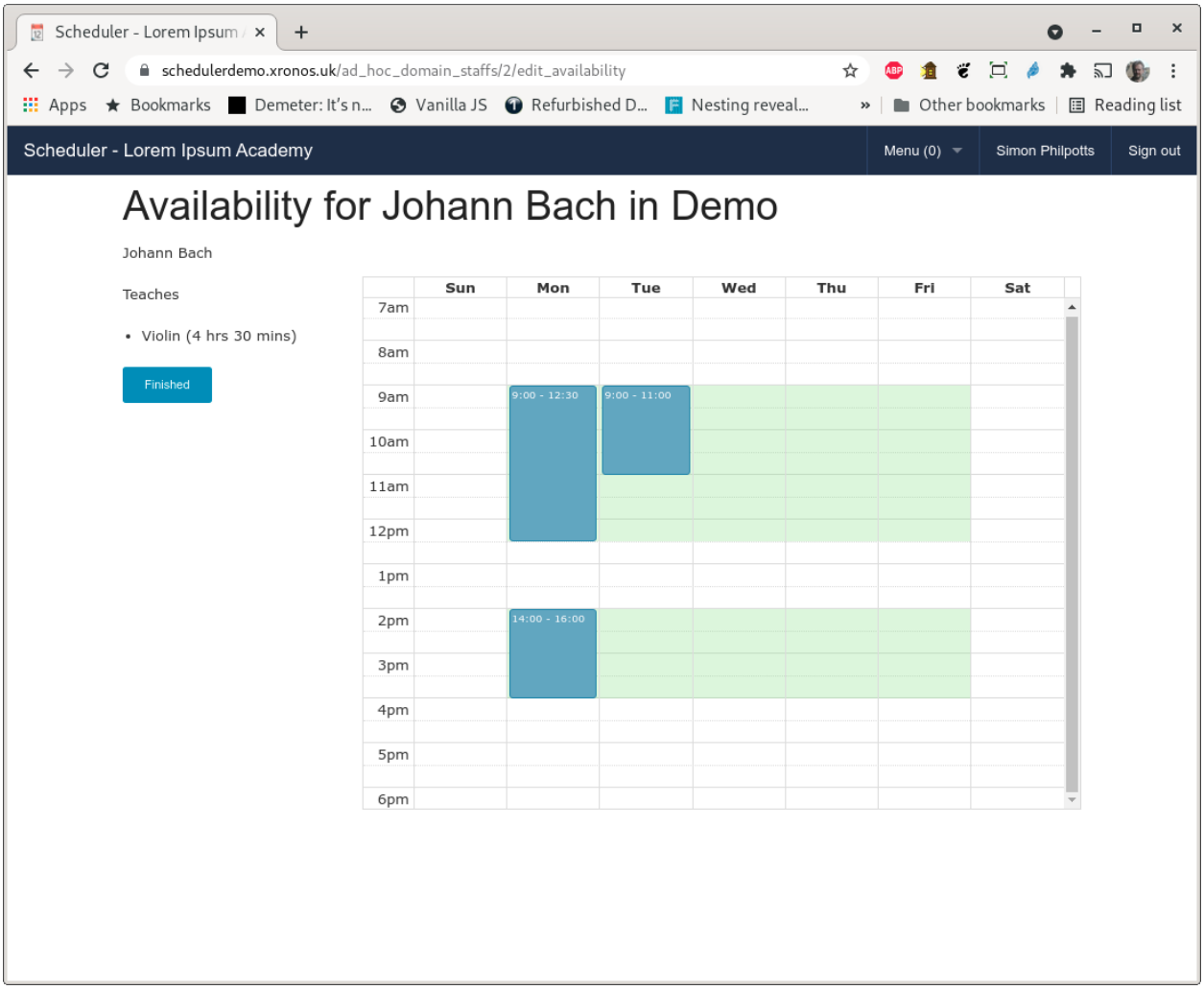
Each staff member will typically have certain defined periods of time when they are available to teach. This information can be entered from the "By Staff" tab by clicking on the "Availability" link next to the staff member's name.



The background periods shown on this screen were defined by your system administrator when the Ad Hoc category was set up. They should reflect the normal times when teachers would be available.

In our case, JSB teaches all day on Monday, plus Tuesday morning until 11am.

Click on the background periods for each of these slots to create an availability schedule for JSB. Then drag the end of the Tuesday morning one to 11 o'clock.

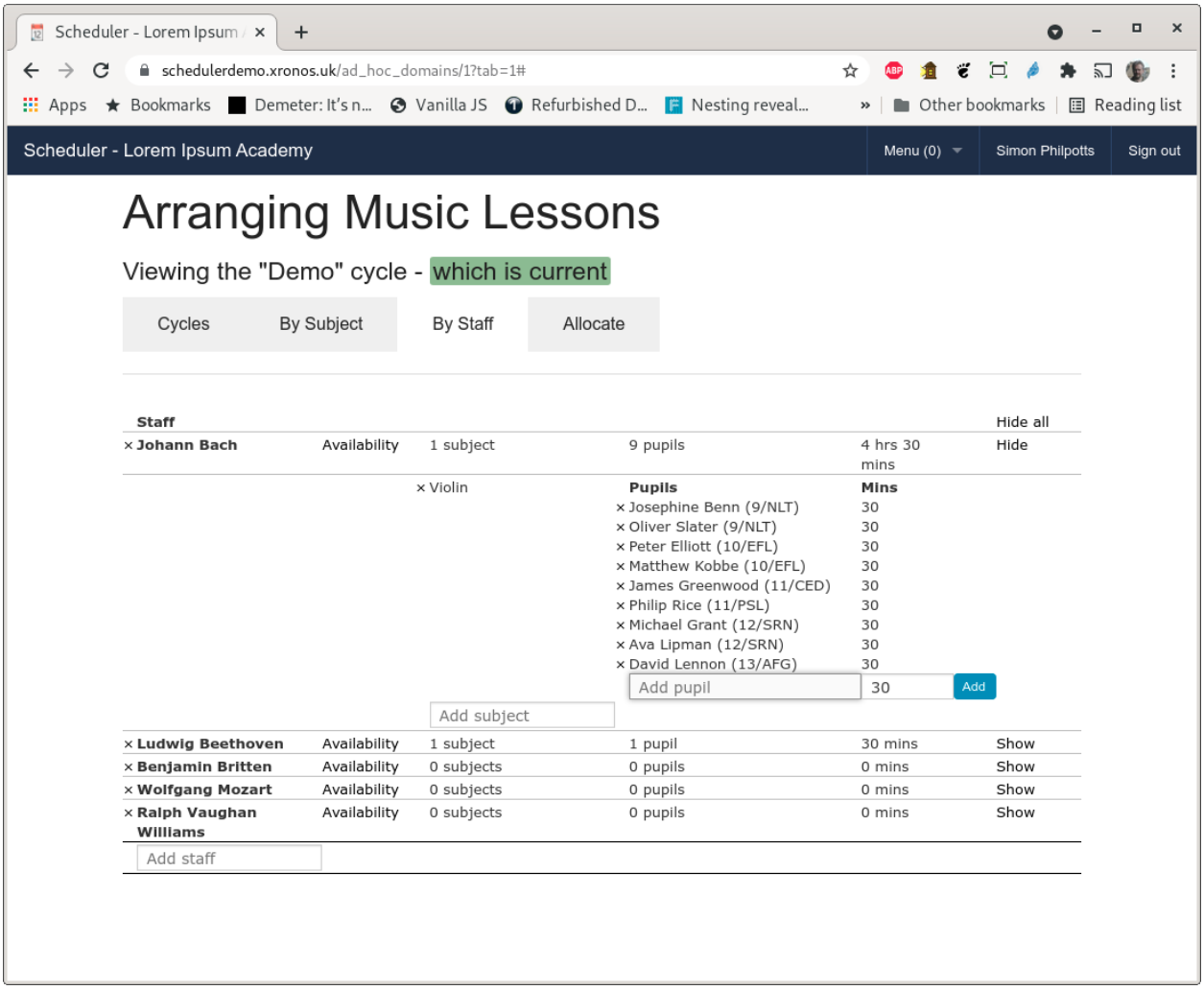


To delete a slot entered in error, just click on it again.

5.7 Pupils

Enter pupils on either of those two tabs under the staff and subjects where they are due to have lessons. The lesson duration defaults to the number of minutes which were set when the Ad Hoc category was created but you can increase or decrease the duration as required.

If a pupil has been entered with the wrong duration of lesson, just click on the number of minutes and you can change it.

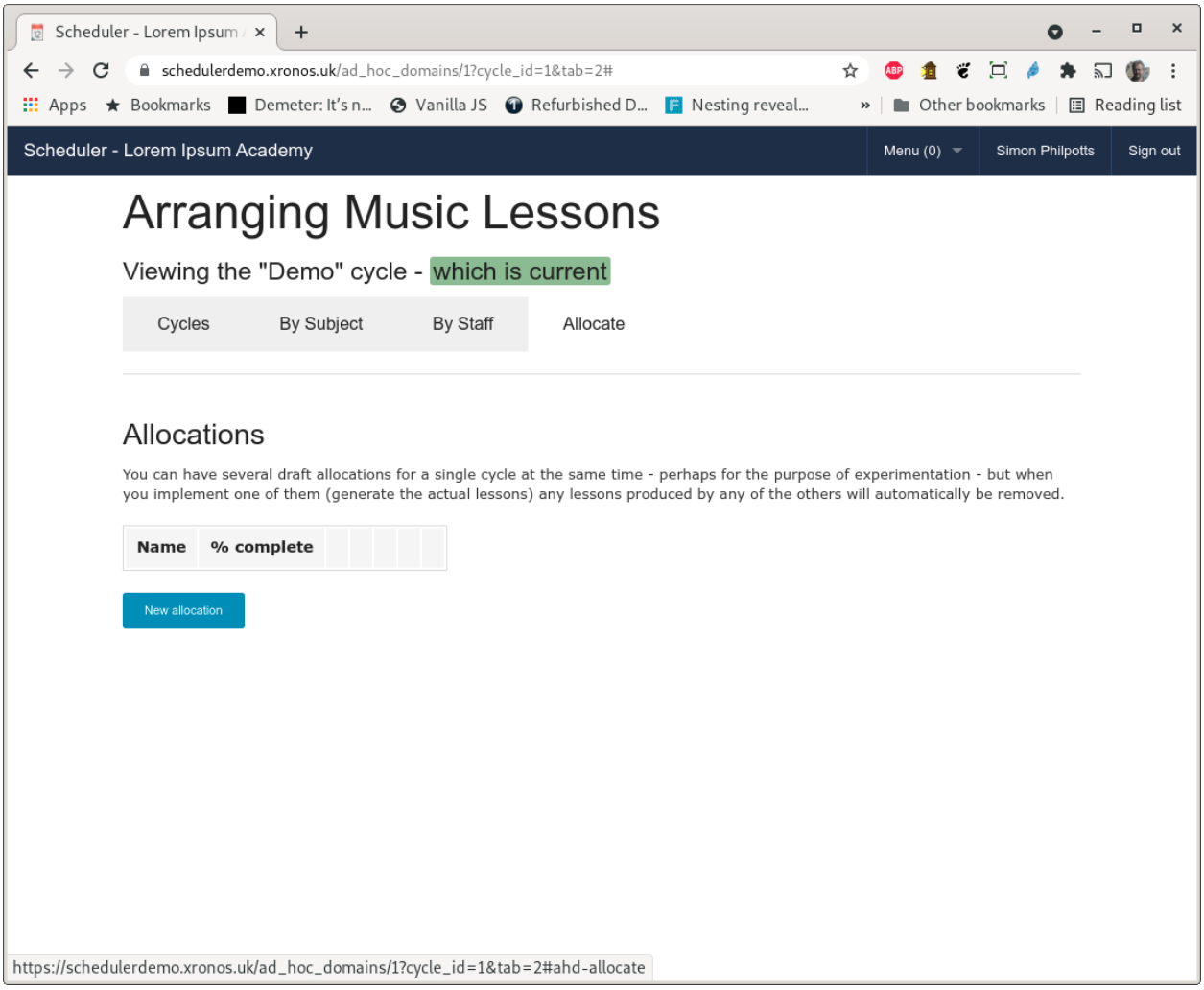


5.8 Allocation

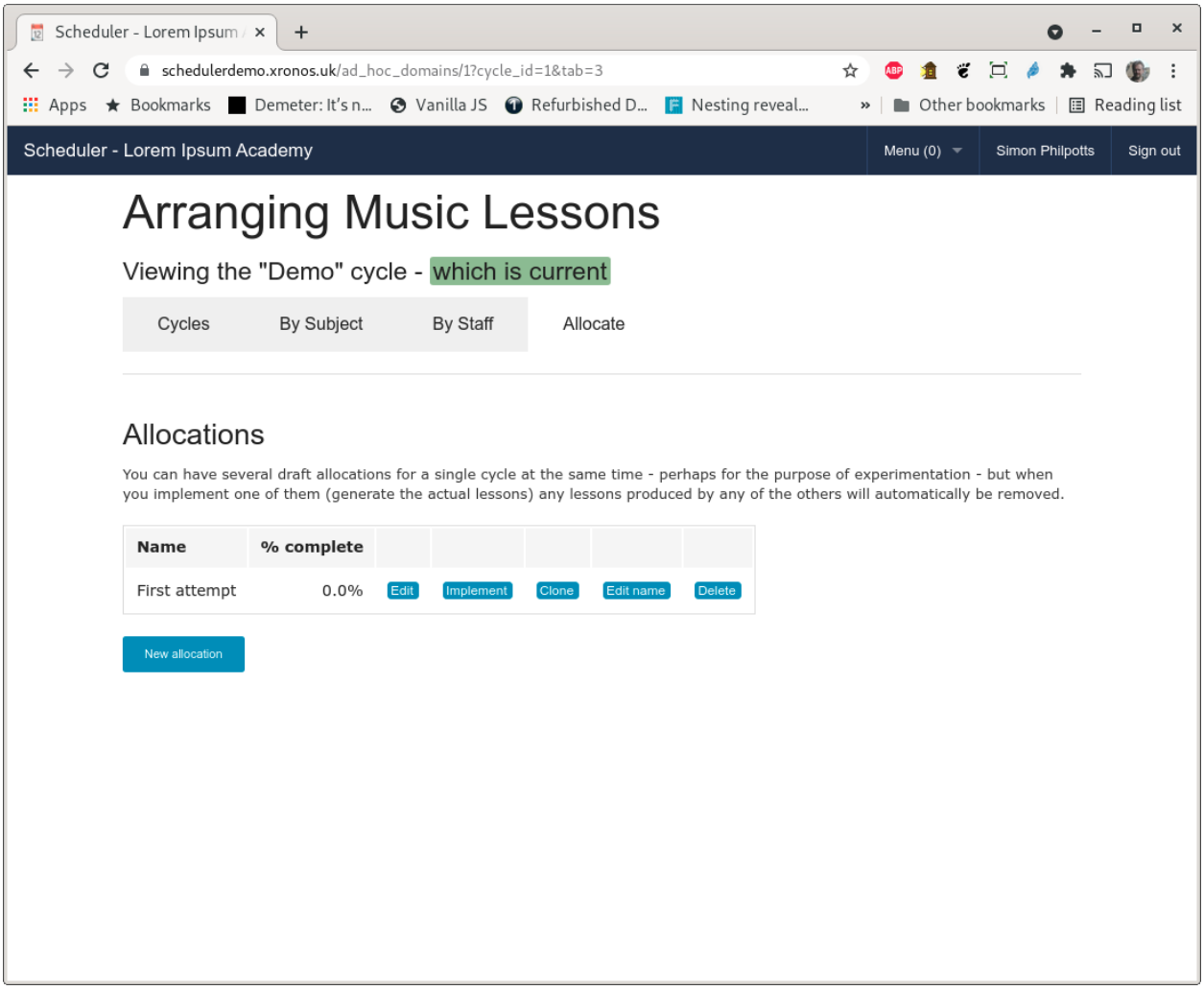
Will all the above information entered, you can now think about doing some actual scheduling.

It is assumed that you might want to have more than one go at this for a given cycle to try to find the best fit (fewest academic lessons missed). For that reason you can create more than one Allocation within a Cycle and then decide later which one you like best.

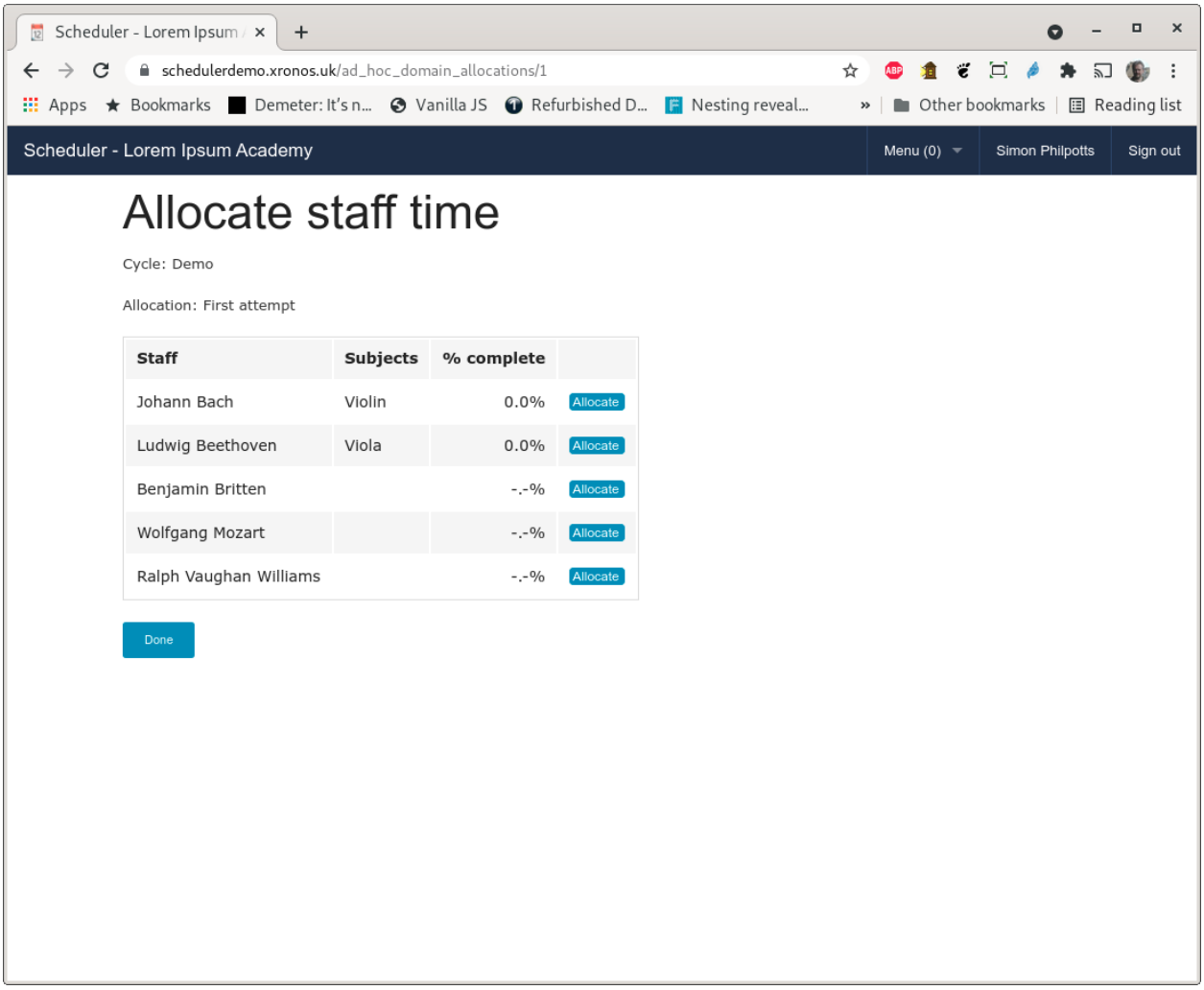
Click on the "Allocate" tab to see a list of your allocations - currently empty.



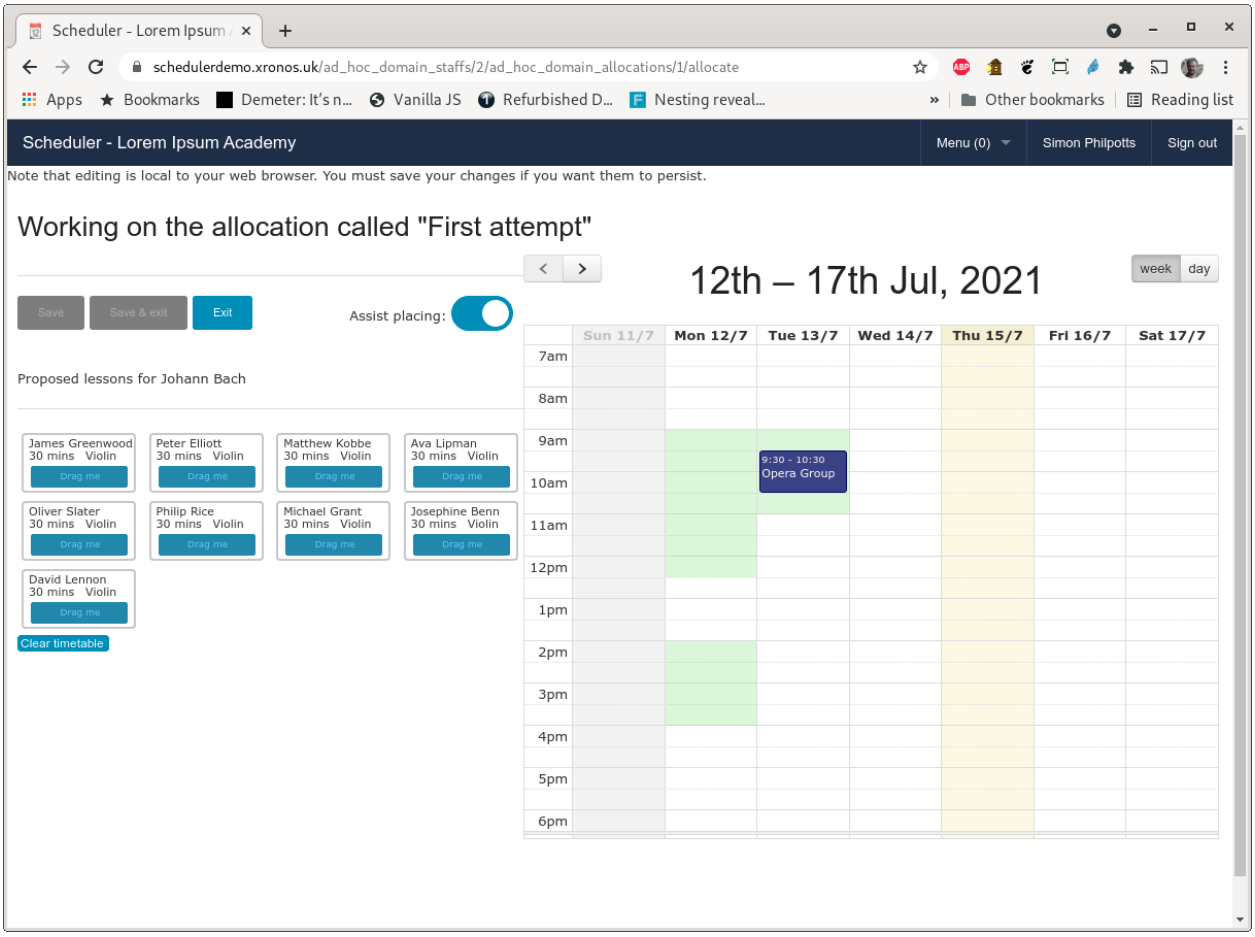
Click on the "New allocation" button and the only information which you need to give is a name to identify it.



Then click on your new allocation's "Edit" button to start placing lessons.



Click on JSB's "Allocate" button and you should get a screen much like this:



This is one of the more complex screens with quite a bit to take in.

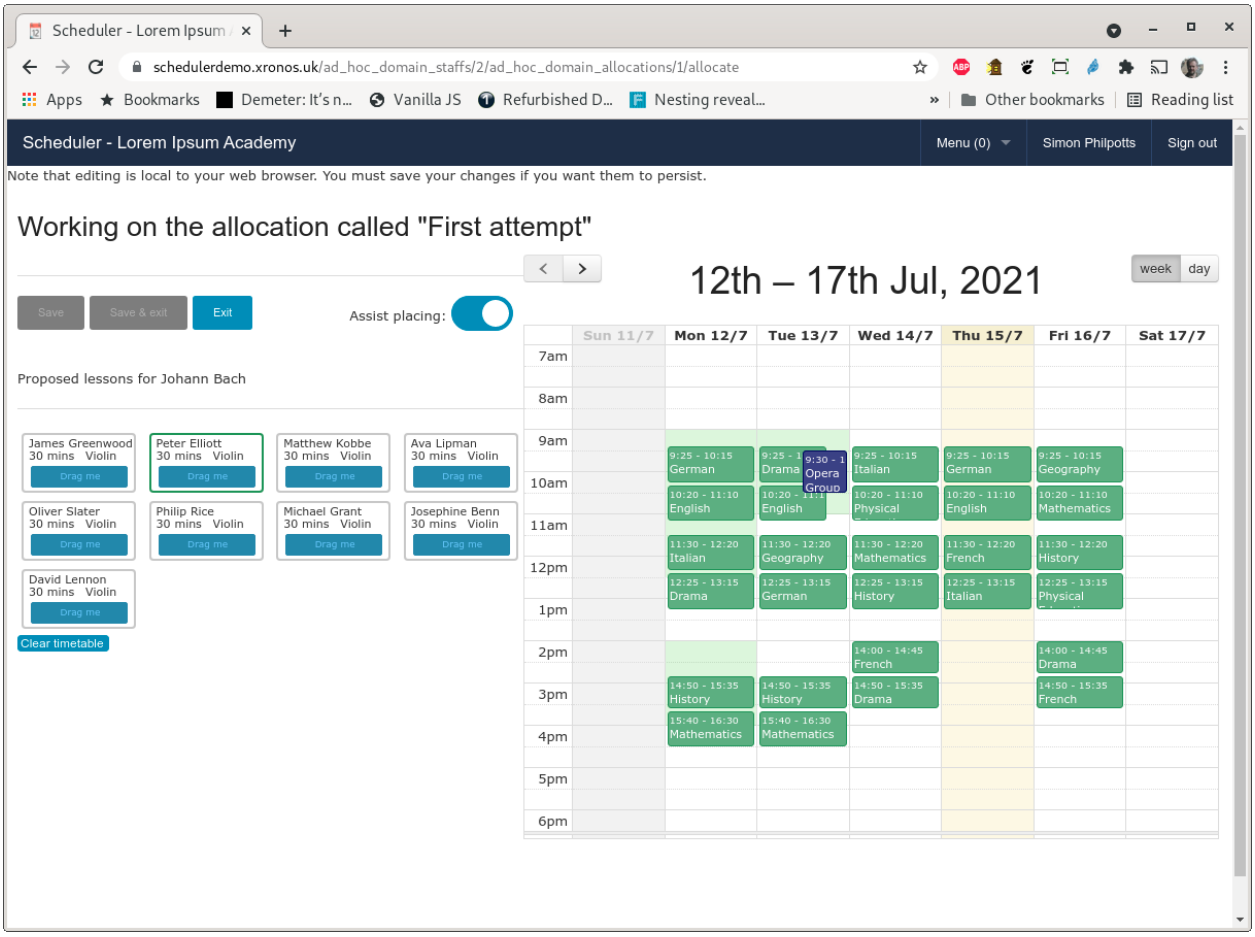
On the right we have a calendar showing the first week of the cycle and with JSB's availability shown by means of background periods. There is also an existing event involving JSB (entered through Scheduler's normal event editing facilities) which means he isn't available for teaching for part of Tuesday morning.

On the left we have one cell for each of the pupils needing a lesson scheduled. Above that there are some buttons for saving your work and exiting the screen, plus a switch for turning on and off assisted placement.

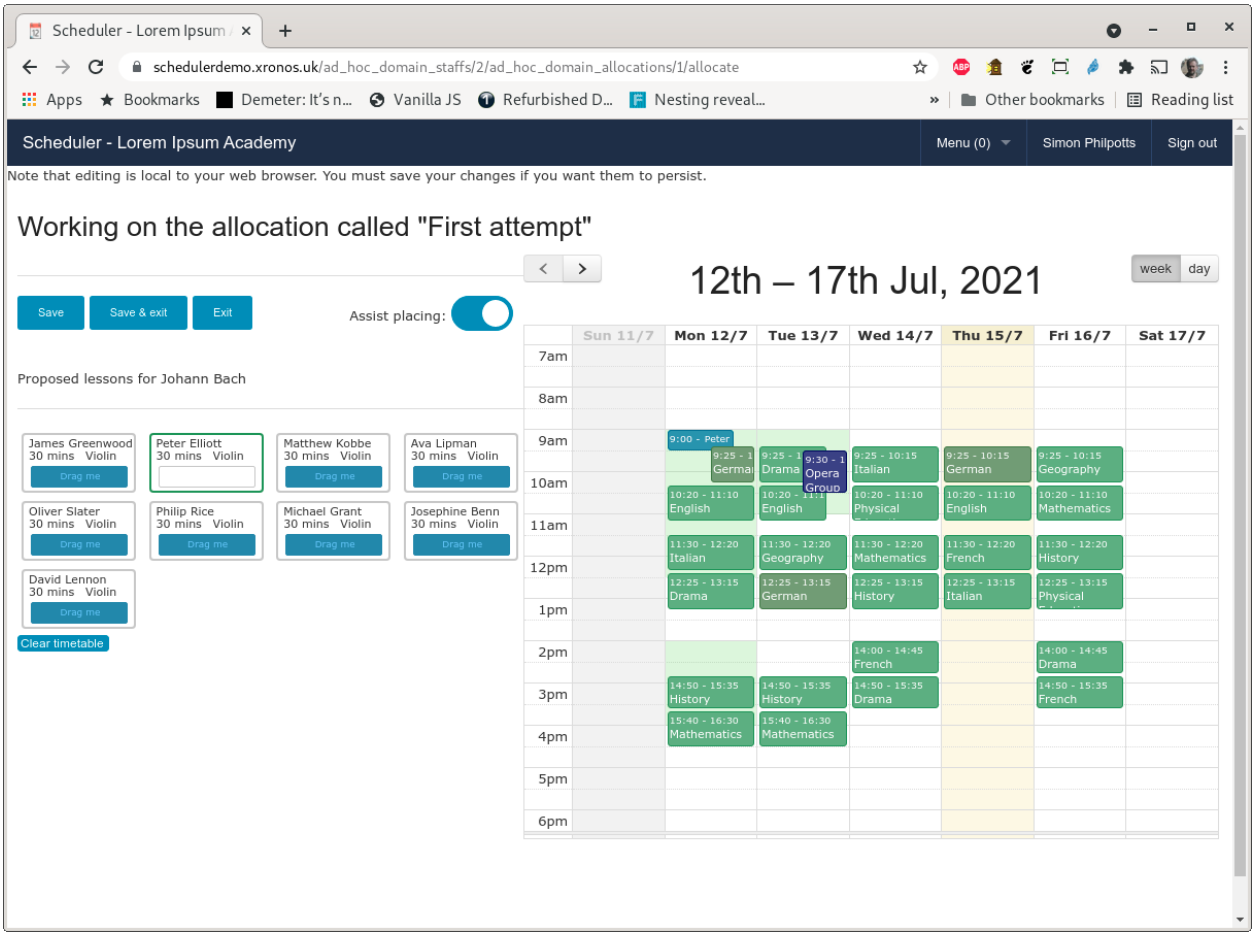
> **Warning:** All your allocation work is done locally within your web browser. You need to save your work back to the server if you want to keep it.

If you have assisted placement turned on then the program will position each lesson intelligently within the availability slot to which you have dragged it, avoiding gaps between lessons etc. If you turn it off then each lesson will simply be placed exactly where you put it.

What you need to know when scheduling lessons for individual pupils is the individual academic timetable for each pupil, plus how often they have already missed particular subjects. If you click on Peter Elliott's cell on the left hand side, his timetable will appear in the schedule on the right.

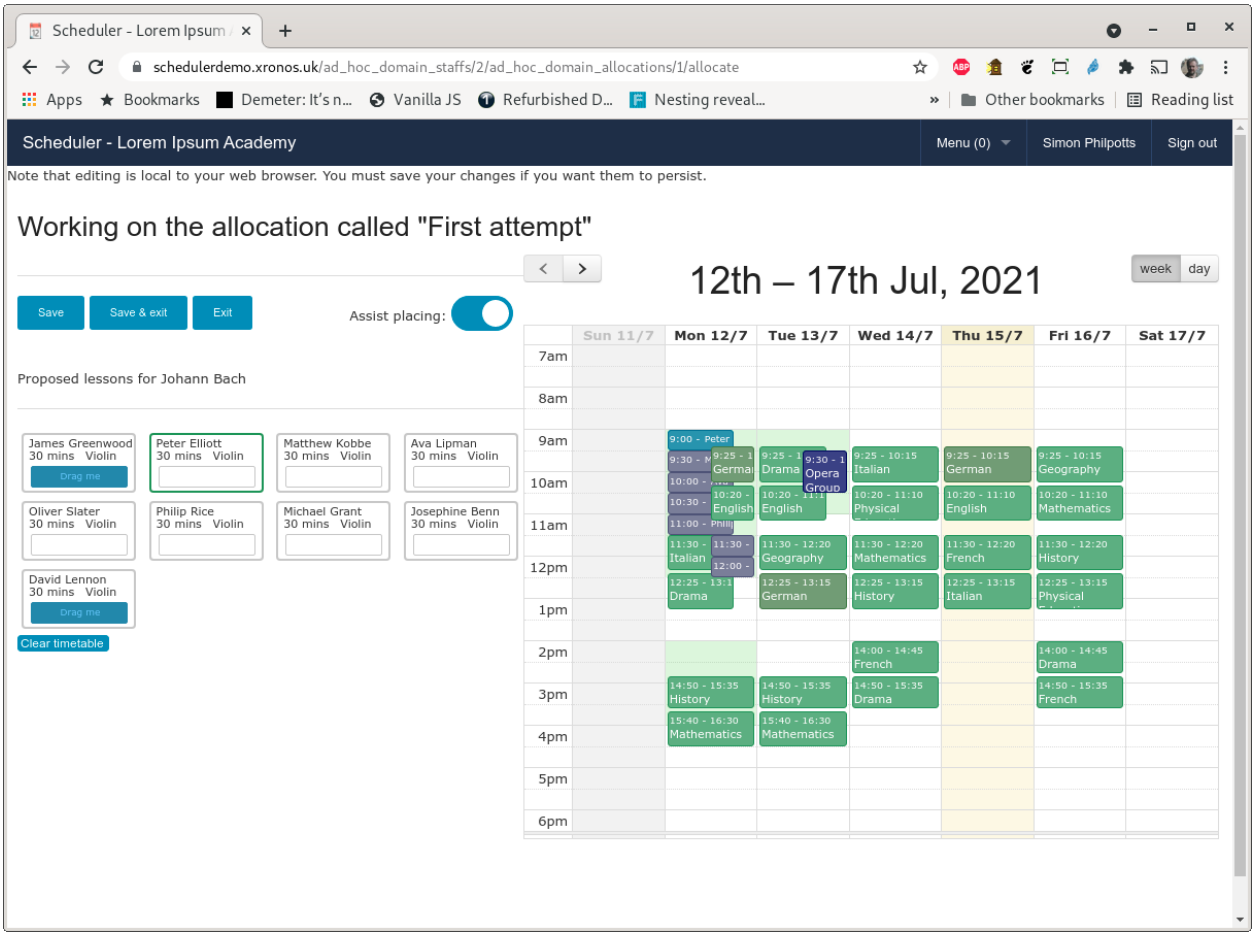


All the lessons are green indicating that he has not yet missed any lessons in those subjects. Drag the blue “Drag me” box from Peter’s cell on the left onto the Monday morning area and it will be positioned automatically at the start of that slot.



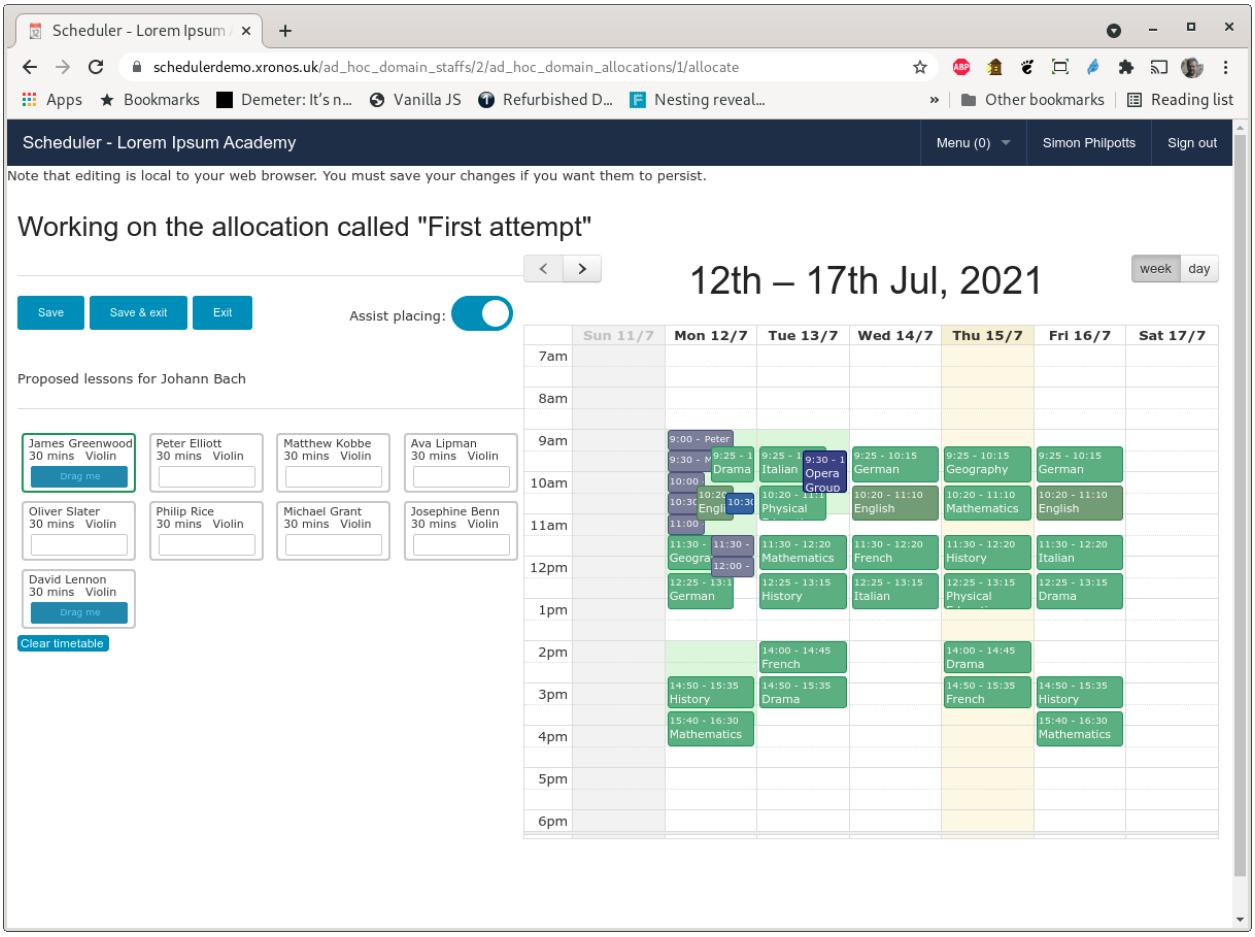
Note that all Peter's German lessons have now changed colour because he has missed at least part of a German lesson in this cycle.

Continue by dragging lessons for other students onto the schedule. At any time you can change whose timetable is showing by clicking either on the student's cell on the left, or on an already placed music lesson. You can remove timetables entirely by clicking on the "Clear timetable" button under the student cells.



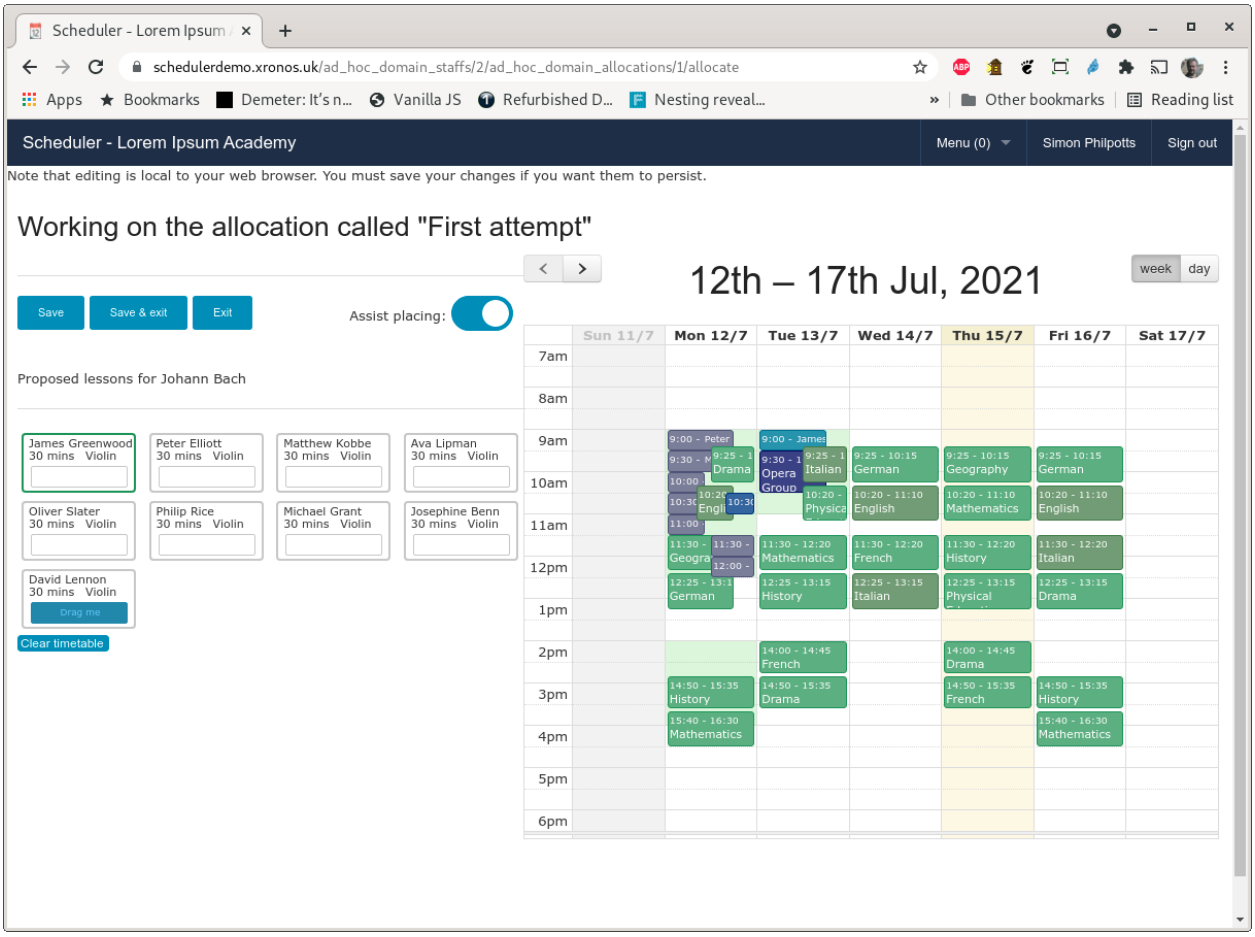
On the above screen, most of the week's lessons have been scheduled and we've gone back to looking at Peter Elliott's timetable. Note that his music lesson is in pale blue, whilst all the other students' lessons are in grey. This enables you to tell quickly which music lesson relates to the timetable currently being displayed.

If you now click on James Greenwood's cell on the left, another little nuance appears.

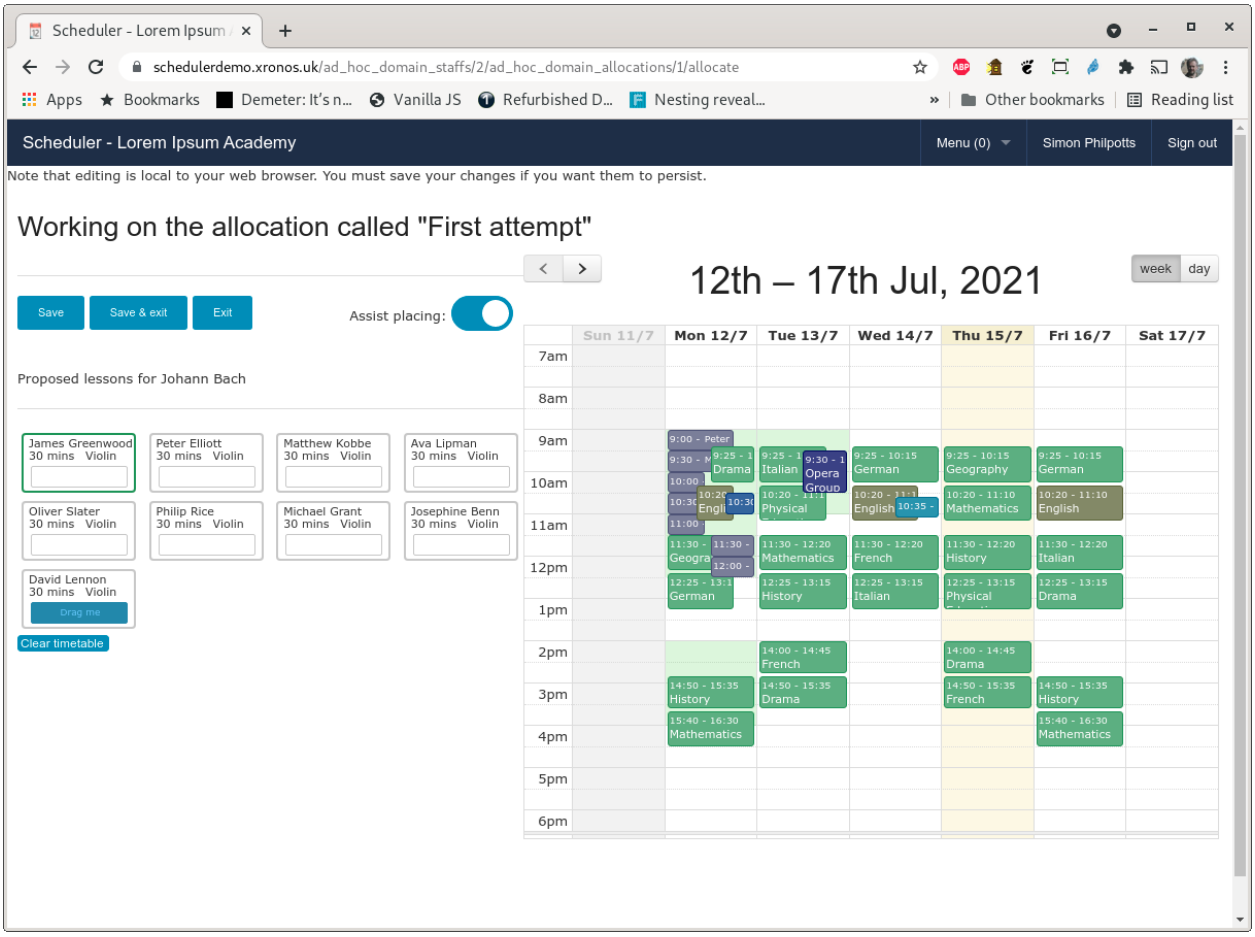


His timetable has appeared as expected, but also another music lesson. This is because he studies Viola as well, and his Viola lesson for this week has already been scheduled within this allocation. It appears here because obviously he can't have both his lessons at the same time. The colour of his English lessons has also been changed to indicate that he has missed an English lesson, even though it wasn't for the Violin lessons which we are currently considering.

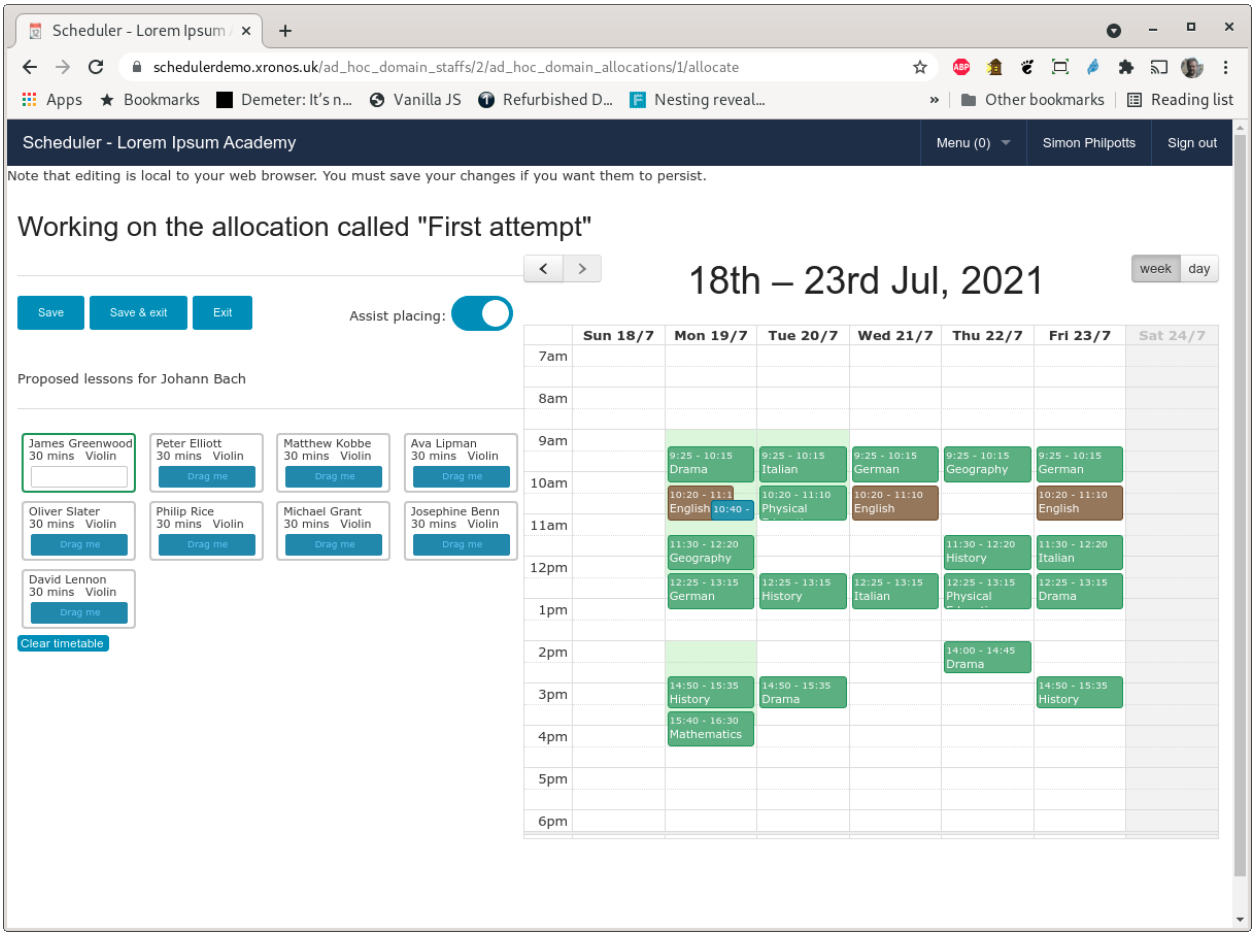
First thing on Tuesday looks like a good time for his Violin lesson so we can put it there.



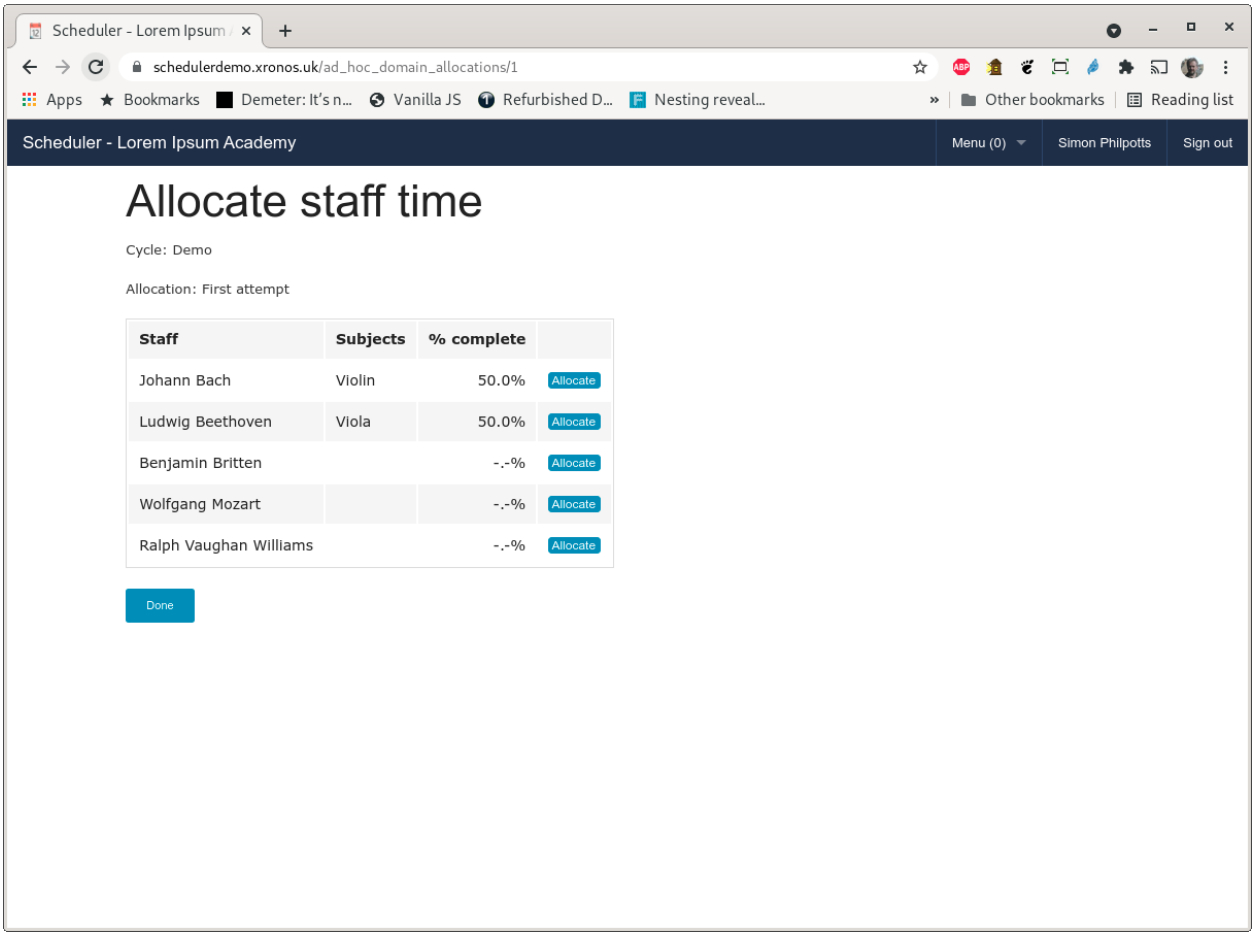
Note that, whilst Scheduler will attempt to assist you in placing lessons, you can always override it and go for something apparently less than sensible. You could drag that freshly placed lesson and put it in the middle of James's English lesson on Wednesday morning, despite JSB not being apparently available then, and it being a lesson which James has already missed one of.



Note that the English lessons have moved further from green towards red because James is now missing two of them. If we move on to the next week and again deliberately put James's lesson in an English lesson it gets even worse.



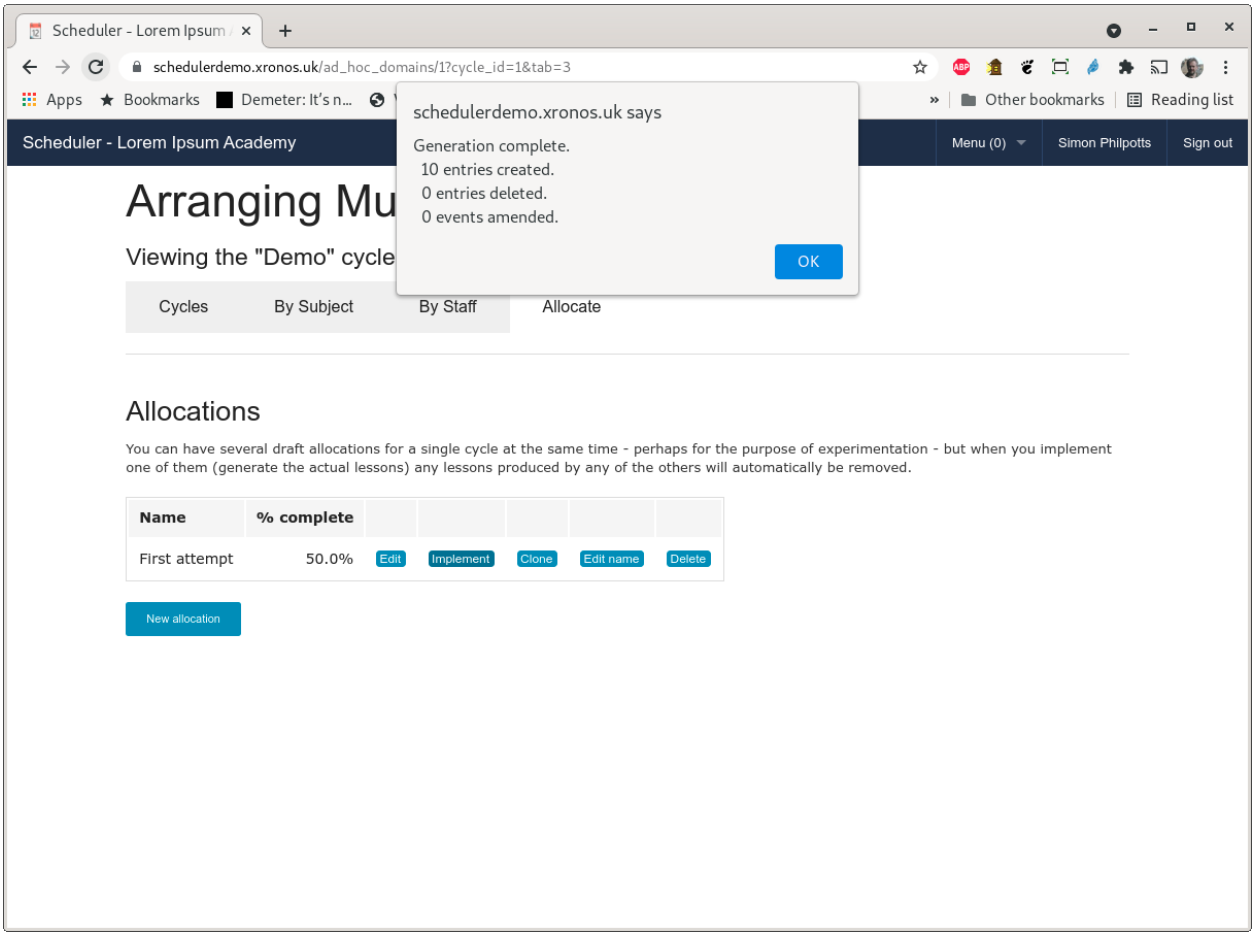
When you're happy with what you've done, click on "Save & exit" and you're taken back to the list of staff to be allocated. Note the indication of how much more you have to do.



At any time, you can clone an Allocation and do further work on the clone. This can be useful to try out "what if?" scenarios.

5.9 Implementation

Once you have an Allocation with which you are happy you can publish it by clicking on the "Implement" button on the listing of allocations.



Doing this will cause all the lessons in the allocation to be created in Scheduler's main event database, making them visible to staff and pupils alike. They will supersede any events created by a previous allocation within this cycle. (Any other events with the same Event Source, as configured when the Ad Hoc category was set up.)

CHAPTER

SIX

CONTACT

For further information about Scheduler, please contact info@xronos.uk

CHAPTER

SEVEN

AVAILABLE DOCUMENTS

- Scheduler Admin Guide
- Scheduler Advanced User Guide
- Scheduler API Guide
- Scheduler Installation Guide
- Scheduler User Guide

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Note - Scheduler is *not* a timetabling program. It has no facilities at all to solve the problem of school timetabling. If you want a good timetabling program, try Keith Johnson's Timetabler.

CHAPTER

EIGHT

INDICES AND TABLES

- search