

1 The UCT Mathematics Competition

This document is a guide for the administration of the online UCT Mathematics Competition Registration webpage.

Contents

1	The UCT Mathematics Competition	1
2	Overview of the site	1
2.1	Interacting with the website	1
3	Teacher's Interface	1
3.1	Logging in	2
3.2	The Profile page	2
3.3	Selecting a school	2
3.4	Completing and submitting the form	3
3.5	Edit and review	4
4	The Admin Interface	5
4.1	Logging in	5
4.2	Base admin page	6
4.3	Auth	7
5	Competition Administration	7
5.1	Competitions	8
5.2	Responsible teachers and Invigilators	9
5.3	Schools	9
5.3.1	Searches and filters	10
5.3.2	Actions and exports	10
5.4	School students	11
5.4.1	Actions and exports	11
5.5	Venues	12
6	Admin actions	13
6.1	Registration stage	13
6.2	Results and ranking	14

2 Overview of the site

2.1 Interacting with the website

There are two "modes" of operation for the website, each with a different interface. The "teacher interface", where teachers will submit their entries and the "administrator interface" where the entries made for each school can be managed. As an administrator, you will have access to both.

Teachers who wish to sign up students for a school will be directed to the main website at *uct-maths.sjsoft.com*. The use of this interface is covered in the next chapter. As an administrator, you will be able to access the entries made by teachers. To get to the admin interface go to *uct-maths.sjsoft.com/admin*.

3 Teacher's Interface

This section will provide information on the process of signing up students using the teacher's interface at *uctmaths.sjsoft.com*.

The 'Admin. Interface' section of this documentation goes into more detail about how users are associated with schools. For now (assuming you are reading this section first), it is just important to know that a user is associated with a single school. Once they have chosen which school they are to be responsible for, they will have sole access to that schools entry form.

3.1 Logging in

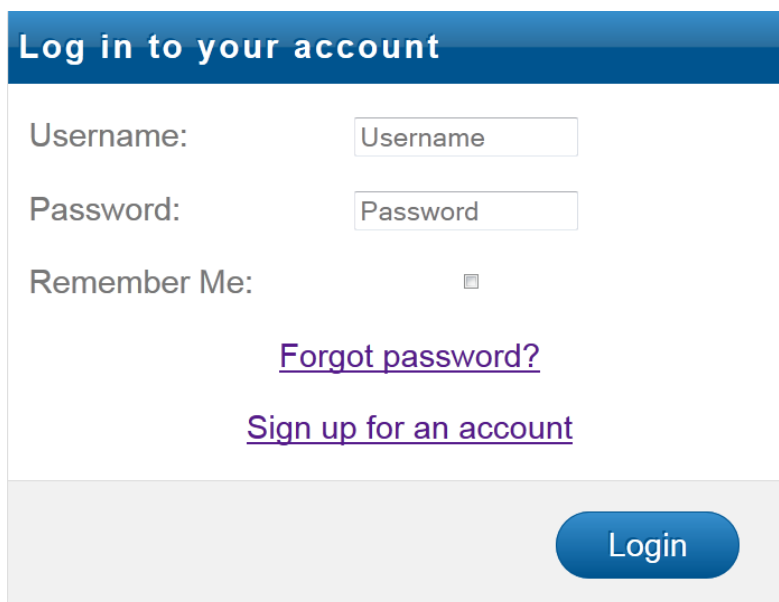
The image shows a login interface with a blue header bar containing the text "Log in to your account". Below the header, there are three input fields: "Username:" with a text box labeled "Username", "Password:" with a text box labeled "Password", and "Remember Me:" with a checkbox. Below these fields are two links: "Forgot password?" and "Sign up for an account", both in purple text. At the bottom right, there is a blue rounded button labeled "Login".

Figure 1: The log-in/landing page for teachers

This login page is the first seen by teachers when they go to the site. It allows a teacher to log in with their username and password, sign up or recover a forgotten password. Once logged in, the teacher will be taken to the **Profile** page.

3.2 The Profile page

After having logged on, a teacher will be taken to the **Profile** page. This page provides information on the user (ie. school association or lack thereof) and on the competition (ie. closing date or if online entries for the competition are closed)

A teacher will not yet be associated with a school the first time they log in. The blurb on the **Profile** page will inform them of this and direct them to the **Entry form** link where they will first select a school.

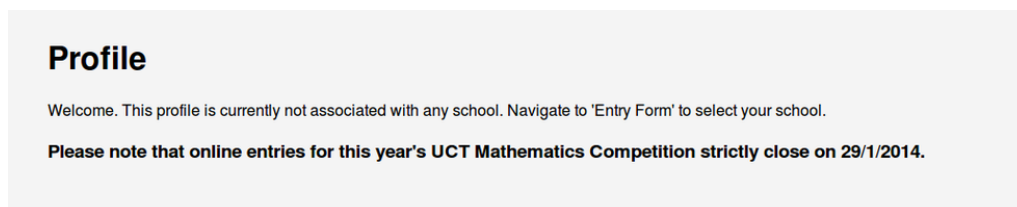
The image shows a profile page with a light gray background. At the top, the word "Profile" is written in bold. Below it, a message says: "Welcome. This profile is currently not associated with any school. Navigate to 'Entry Form' to select your school." At the bottom, a note in bold states: "Please note that online entries for this year's UCT Mathematics Competition strictly close on 29/1/2014."

Figure 2: A teacher is not currently associated with any school

3.3 Selecting a school

A school is associated with a single user. On their first log in, users will be prompted to choose the school that they are responsible for. If a teacher chooses the wrong school by mistake (they cannot undo

this themselves), or they find that another user has taken the school, they will be prompted to email the administrator.

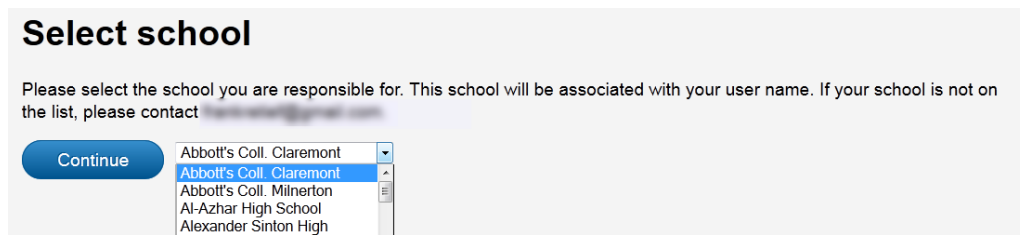


Figure 3: The user will be asked to select a school from the drop down menu.

Figure 4: If the school has already been associated with another username, the teacher will be prompted to contact the administrator.

Note

As the administrator, you will have to navigate to the Schools tab, find the school and then change the **Assigned to** drop-down field to "-----" (meaning that no user has been assigned to it). See the Administrator Actions section of this report for more details.

3.4 Completing and submitting the form

The main registration form requires the user enter data into text fields. The teacher is required to enter:

- a responsible teacher's name and contact details;
- up to 10 invigilators (name and contact details);
- up to 5 individuals (name and surname) and up to 5 pairs (drop down menu) per grade.

Grade 10

Number of pairs:

Individuals:

First Name	Surname

Figure 5: An example of an empty section for grade 10. The pair entries are chosen via the drop down menu and the individuals’ names and surnames are entered into the text fields below.

Once the teacher has filled in the form, they have to click on a checkbox (placing the responsibility on them to ensure the accuracy of their entrance.)

☐ Have you confirmed that all the information entered is correct? It is your responsibility to ensure that your application has met the requirements stated for each section.

Submit

Figure 6: The **Submit** button remains greyed out until the checkbox is clicked.

Finally, once the box has been checked and the form is deemed valid, the user will be able to click **Submit**. At this point, an email with a summary of the teacher’s entry will be emailed to the address associated with their username. An email will also be sent to the administrator’s email address, notifying the admin of a new or amended entry to the competition.

3.5 Edit and review

Once a teacher has successfully made an entry to the competition, their entry will be shown when they navigate to the **Entry form** page. (As shown here).

Grade 8

Pairs:

3 pairs (teams of 2) have been registered for grade 8.

Individuals:

First Name	Surname
Student	A
Student	B
Student	C

Figure 7: The teacher can view the information already submitted for the school. The number of pairs and the details of the individuals are shown but not directly editable.

If online entries are still open, the teacher will be able to edit the entry or re-send the confirmation email. If the deadline for online entries has passed, the teacher will only be able to re-send the confirmation email.

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Please remember that it is your responsibility to ensure that accurate information has been entered. You will be able to edit your school's entry up until the closing date for new entries to the competition.

Edit

Re-send email

4 The Admin Interface

4.1 Logging in

As mentioned before, the login page for the administrator is different from that of the teachers'. By going to *uctmaths.sjsoft.com/admin*, you will be presented with the login page shown here.

Django administration

Username:

Password:

Figure 8: The basic login page for the administrator

Note

You can also log in as a teacher using your admin username and password at the teachers' interface.

4.2 Base admin page

Once logged in, you will see the administration overview page. By clicking on any of the entity links (eg. School students), you will be presented with a table containing all the records for that entity.

Django administration
Welcome, **frankr**. [Documentation](#) / [Change password](#) / [Log out](#)

Site administration

Account	
Email addresses	Add Change
Email confirmations	Add Change
Auth	
Groups	Add Change
Users	Add Change
Competition	
Competitions	Add Change
Invigilators	Add Change
Responsible teachers	Add Change
School students	Add Change
Schools	Add Change
Venues	Add Change
Sites	
Sites	Add Change

Recent Actions

My Actions

- [Int. Sch.of Helderberg&Som](#)
School
- [D, Learner](#)
School student
- [C, Learner](#)
School student
- [B, Learner](#)
School student
- [A, Learner](#)
School student
- [12C, Pair/Pair](#)
School student
- [12B, Pair/Pair](#)
School student
- [12A, Pair/Pair](#)
School student
- [C, Pupil](#)
School student
- [B, Pupil](#)
School student

Figure 9: The administrator overview page is the first you will see after login. It contains links to the different archives of information available to the admin.

The following sections introduce each of the important links that can be followed from this page. Please pay attention to the guidelines and warnings about its usage. While the website is tested and robust, manipulating values as an administrator can have unintended side effects.

The table is divided into 4 sections:

1. **Account** contains user information regarding email addresses.
2. **Auth** contains the users signed up to your website. This is where you will likely go to manage access to the site.

3. **Competition** is where most of the useful information is. This is where the information that the teachers enter will be shown as well as extra information about schools and venues.
4. **Sites** isn't used. Don't change anything here.

4.3 Auth

Users in this section contains the users signed up to the UCT Mathematics Competition website. You can see their log in username, email address and staff status.

Warning

This is **not** where you want to edit which user is associated with a school. If you delete a user here without removing the user's association with a school (on the Schools page), you could end up deleting the school's entry in the database too!

5 Competition Administration

The following sections relate to the "Competition" section of the Admin. home page.

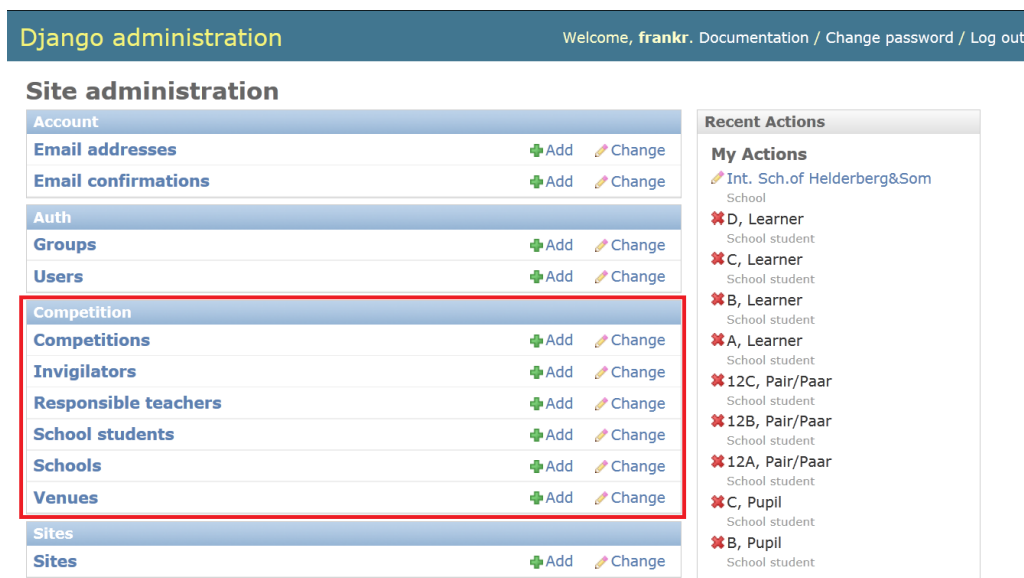


Figure 10: This section of the document refers specifically to the links in the "Competition" section (shown in red)

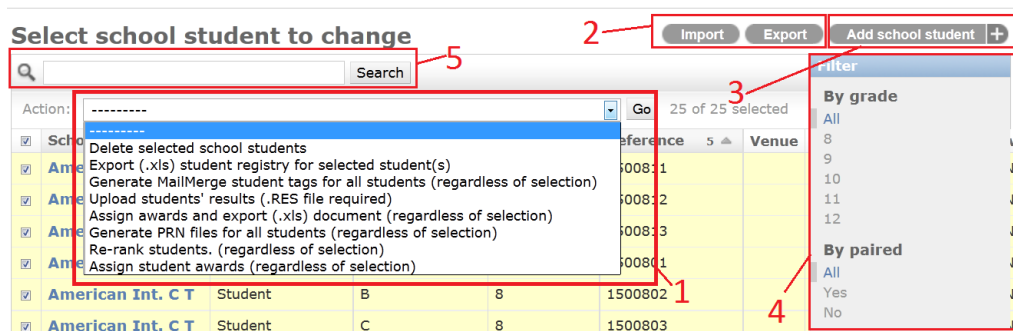


Figure 11: Actions, filters and searches can be performed on the entries in the table.

An example of a table is shown above. **1** shows the actions that can be performed on a selection of the information.

Note

Some options contain "selected student(s)" in their description where others contain "regardless of selection". While the former is obvious, the latter can cause confusion. The website framework expects that at least one item is selected for an action to run. So an action that acts "regardless of selection" still requires that at least 1 item be selected by the user.

2 shows the import and export functions. Feel free to play with these as they can be very useful. **3** is the link that you can use to create a new entry for the table. Please read the sections below before you do as there are some non-obvious fields and some fields that shouldn't be filled out by the admin. **4** is the Filter sidebar. This can be used to remove some results from being displayed in the table. (eg. show only paired students). **5** is a search field where you can enter, for example, the name of a school whose entry you wish to find.

Note

Clicking the checkbox on the left to select all entries (shown below) will only select all the students **on that page**. Remember to click "Select all X entries" to select all of the entries in the table.

Select school to change

Search

Action: ----- Go 100 of 100 selected Select all 239 schools

<input checked="" type="checkbox"/>	Key	Name	Language	Address	Phone	Fax	Contact	Email
<input checked="" type="checkbox"/>	2	Abbott's Coll. Claremont	English	P O Box 2317 CLAREINCH 7740	021 671-1173	021 671-2630		
<input checked="" type="checkbox"/>	3	Abbott's Coll. Milnerton	English	8 Eddison Way Century Gate, Century City	021 551 4090	021 551 4093		

Figure 12: Be careful when trying to select all students, you may only be selecting those in the current view!

5.1 Competitions

Competitions is where you can edit details of the competition. These details will be posted on the website and control when teachers can sign up their schools.

Django administration Welcome, frankr. Documentation / Change password / Log out

Home > Competition > Competitions

Select competition to change Add competition +

Action: ----- Go 0 of 1 selected

<input type="checkbox"/>	Newentries Opendate	Newentries Closedate	Admin emailaddress
<input type="checkbox"/>	Jan. 10, 2014	Jan. 29, 2014	frankr@frankr.com

1 competition

Figure 13: You should always ensure that there is only one entry on this page. This Competition entry contains the dates for closing online entries and the administrator's details to be posted on the site.

The options that can be edited are:

Table 1: Competition administration

Field	Description
New entries open date	When teachers can start signing up students
New entries close date	When online entries close (last allowable day of sign-up)
Admin. email address	CC'd on all confirmation emails; teachers are directed here for help
Num. school candidate scores	Number of top scores that are added to produce school score
Num. of individuals	Maximum number of individuals per grade
Num. of pairs	Maximum number of pairs per grade

Note

The administrator email address you enter will be publically available to all teachers requiring help signing up. It may be a good idea *not* to use your home or personal email address.

Warning

The last 3 fields in the table have been included to allow customisation of the competition at a later date. Please remember to set them correctly **before** allowing any sign-ups.

5.2 Responsible teachers and Invigilators

The names and contact details of the Responsible Teachers and Invigilators are kept in these two tables. If you would like to export invigilator and responsible teacher information, click the 'Export' button on the top right corner of the *Invigilators* page. This will export all the Invigilators' data with the contact details for the Responsible Teacher for each respective invigilator in the same row.

5.3 Schools

The Schools table is (already) populated with schools recognised by the UCT Mathematics Competition.

Figure 14: The Schools page presents the schools that exist in the database.

Each school record can be individually edited. You would come here to edit the name or contact details of the school, or to remove a user's association with the school. A description for each of the fields is shown in the table below.

Table 2: School entity fields

Field	Description
Name	The school's name (required)
Key	A unique key identifying the school (required)
Language	The preferred language (required)
Address	Address of the school (required)
Phone	Phone number
Fax	Fax number
Entered	Does the school have entries (1 - yes, 0 - no)
Score	The sum of the top students at the school
Email	Email contact address for the school
Assigned to	Which username the school is assigned to
Rank	Ranking of schools based on score

The non-obvious fields (ie. **Entered**, **Score**, **Assigned to**, **Rank**) are used by the background methods to produce lists and should not be filled in by the admin. However, **Entered** should be set to 0 as it is required when creating a new school. **Rank** and **Score** are calculated by the database once the scores of the students are known.

The **Assigned to** field is completed by the database when a teacher selects the school for which they are to be responsible.

Caution!

The school's name should not contain a '/'. This can cause odd behaviour down the line. Rather use an '&'.

Warning

Please ensure that a user is only ever assigned to **one** school at a time. This is very important. Best practice would be to only **remove** a user's association to a school from this interface. (ie. set **assigned to** to '-----')

5.3.1 Searches and filters

The blue bar on the right of the window contains a number of customisable filters. (They're pretty self-explanatory)

The screenshot shows the Django administration interface for the 'Schools' model. The page title is 'Select school to change'. It features a search bar, a table of schools, and a sidebar with filters. The table has columns for 'Key', 'School Name', 'Language', 'Address', 'Phone 1', and 'Phone 2'. The sidebar has filters for 'By entered' and 'By language'.

Key	School Name	Language	Address	Phone 1	Phone 2
186	Al-Azhar High School	English	Cnr. Newton Avenue & Birdwood Road Athlone 7764	021 696-5475	021 696-5478
4	Alexander Sinton High	English	Thornton Road Crawford 7764	021 697 1350	021 696 1756
160	American Int. C T	Bilingual	42 Soetvlei Avenue Constantia 7806	021 713-2220	021 713-2240

Figure 15: The drop-down menu shows the possible exporting functions available to the administrator.

5.3.2 Actions and exports

- **Remove associated users to selected school(s)**

As has been introduced earlier, each school is associated with one username. This method allows that association to be cleared for a selection of schools. This can also be done individually for each school.

Example use-case: preparing the competition for a new year, removing all user-school associations in the database

- **Download school tags for selected school(s)**

For a selection of schools, a single Mailmerge-formatted file is produced for school labels.

Example use-case: preparing name tags for all the schools that have entered. By using the **Entered** filter on the right to remove schools without entries, the remainder can be selected and name tags for only those schools can be generated.

- **Assign rank based on score to schools (regardless of selection)**

Based on the students' scores, the top students (the number of which is defined by the Competition entity) are summed to generate a score for the school. Schools with equal score are ranked the same.

Example situation: there are three schools. A and B score 10 and C scores 9. This method will cause A and B to be ranked 1st and will be ranked 3rd.

- **School summary (.xls) (only schools with entries, regardless of selection)**

Generates a two-sheet Excel document that summarises the entry of each school. The school's name; the name and contact details of the responsible teacher; the number of individuals and pairs entered for each grade; and the total number of students entered by each school. The second sheet contains additional results information.

- **Print selected school(s) confirmation (single .pdf)**

Generates for download a single (.pdf) document containing the confirmation emails for the selected schools.

- **Update/Refresh schools' entry status (regardless of selection)**

This method checks all schools for entries and sets the **Entered** field for each school. While this is done when teachers submit their entries, this method is a useful check to run if you have made any changes to via. the admin interface (something that is discouraged).

- **Print selected school(s) reports (single .pdf)**

Once students' scores have been entered into the system, school reports can be generated. See example sheet.

Example use-case: when the school reports have to be printed and posted. This method will generate a single file with all reports which is easier to print.

- **Download selected school(s) (separate) reports (.zip/pdf)**

Once students' scores have been entered into the system, school reports can be generated. This method generates a separate file for each school report.

Example use-case: when the school reports have to be emailed. You will be prompted to download a .zip archive which will contain a file for each school. These can then be easily attached to individual emails for each school.

5.4 School students

5.4.1 Actions and exports

- **Export (.xls) student registry for selected student(s)**

This action will generate an excel spreadsheet for the selected set of students. The spreadsheet is split into 10 sheets which list the pairs and individual student entries for each grade.

- **Generate MailMerge student tags for all students (regardless of selection)**

A .zip archive file is generated containing the files required for the MailMerge program. The names and formatting of the student entries and file names is based on examples from previous years.

- **Upload students' results (.RES file required)**

Allows the upload of student results files to the database. Errors are presented to the user on the page after upload has taken place.

Note

The file names are expected to be those as seen in the example files. (eg. INDGR8.RES for INDividuals in grade 8 or PRGR8.RES for Pairs in grade 8.)

- **Assign awards and export (.xls) document (regardless of selection)**

This action will generate an Excel spreadsheet containing the Gold and Merit awards for each grade. The Oxford School Award is also assigned to students who score the highest at their school (regardless of grade or if they're a pair or not) if their school has not received any gold awards.

Note

This method uses the **Rank** of the student. Please ensure that ranks have been assigned to the Students before using this method. If you require, there is a "Re-rank students (regardless of selection)" method that will use the Students' scores to assign them a rank.

- **Generate PRN files for all students (regardless of selection)**

Generates a .zip archive with the PRN files for each grade and pairing status. The files generated are based on format from previous years' competitions.

- **Re-rank students (regardless of selection)**

Assigns ranks to all students based on their score.

Note

The ranks are imported when a .RES file is uploaded. However, if you wish to manually disqualify a student, you can delete their score (leave the field blank - which is equivalent to an 'ABSENT') and then use this function to re-rank the remaining students.

- **Assign awards (regardless of selection)**

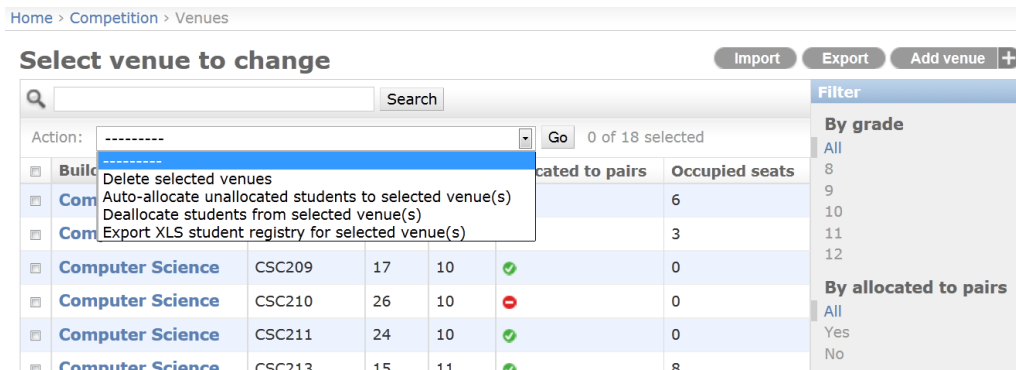
Assigns awards to all students based on their rank. This method will populate the students' **Award** column with the relevant award. The top 10 individuals and top 3 pairs in each grade will be awarded Gold ('G'). From the remaining students, the top 200 individual and top 100 pairs will be awarded Merit ('M'). The Oxford School Prize ('OX') is awarded to the top student rank in a school that has not received any Gold awards. Note that 'MOX' is a student that has received Merit and the Oxford School Prize.

This requires that students' **Rank** field is not empty. (It will ignore those with an empty **Rank**)

5.5 Venues

Venues are largely configured by the administrator of the system; the **Allocated seats** field is the only one that is handled by the system.

When creating a new venue, please be sure to set the **Occupied seats** field to 0. This value is used when the auto-allocate action takes place.



The actions available to the admin to perform on Venues are:

- **Auto-allocate unallocated students to selected venue(s)**

Students without a current venue allocation will be assigned to the selected venue(s). Each student record will be updated according to which venue they are placed in.

- **De-allocate students from selected venue(s)**

Students in each selected venue will be de-allocated. That is, the number of Occupied Seats in the Venue will be set to 0 and the Student records will be updated.

- **Export (XLS) student registry for selected venue(s)**

Generates student registry for the selected venue(s).

Note

If you do not want a venue to be used during the allocation process, make sure that **Grade** is set to *None* by selecting '-----' in the drop-down menu of a Venue object.

Caution!

When using these allocation algorithms, please ensure that all students have been assigned to venue. For example if there are not enough venues for the number of students, the remaining students will have a blank **Venue** field in the *School student* table. It is easy to see if there are any unallocated students by going to the *School student* table from the admin interface and sorting by **Venue** by clicking on the column heading.

6 Admin actions

This section contains a few examples of actions that you might be required to do during the different stages of the competition.

6.1 Registration stage

- A teacher has chosen the wrong school at the school selection page.

When this happens, the teacher will be unable to change their selection. They will be directed to send an email to the administrator explaining the situation. You will have to go to remove the association that the school has with the user. You can do this by going to the schools table of the Admin. interface and find the school that the user had selected incorrectly. From there, the **assigned to** field should show the teacher's username. Change this to '-----' to remove the association. Then tell the teacher to log in again where they will be prompted to select another school.

- A teacher cannot find a school on the school selection page.

At this point, the teacher will be prompted to email the administrator. You can add a new school by going to the Schools table in the Admin interface. See the Admin section of this documentation to understand what fields to fill in and how.

- A teacher cannot register with his/her email address

This is usually when the teacher has already created another username with the same email address. If a teacher comes to you with this query, you can just tell them to request a "Forgotten password". This process will send an email to the entered address with the username and a link to change a password.

- As an administrator, I need to enter information for multiple schools. Do I need to create a username for each school?

No. You can sign up multiple schools with a single username if you are an administrator. You do, however, need to be careful here.

First, log in to the teacher's interface with your username and password. You can then select a school and fill out and submit the entry. Then you can go back to the *Schools* table in the Admin interface and remove your username's association with that school. The next time you go to the teacher's interface you will be prompted to select another school.

Warning

It is good practice to only **remove** a user's association with a school from the Admin interface. If a user becomes associated with more than one school at a time, this will end badly.

6.2 Results and ranking

For specific actions, see the Admin interface section of this document.