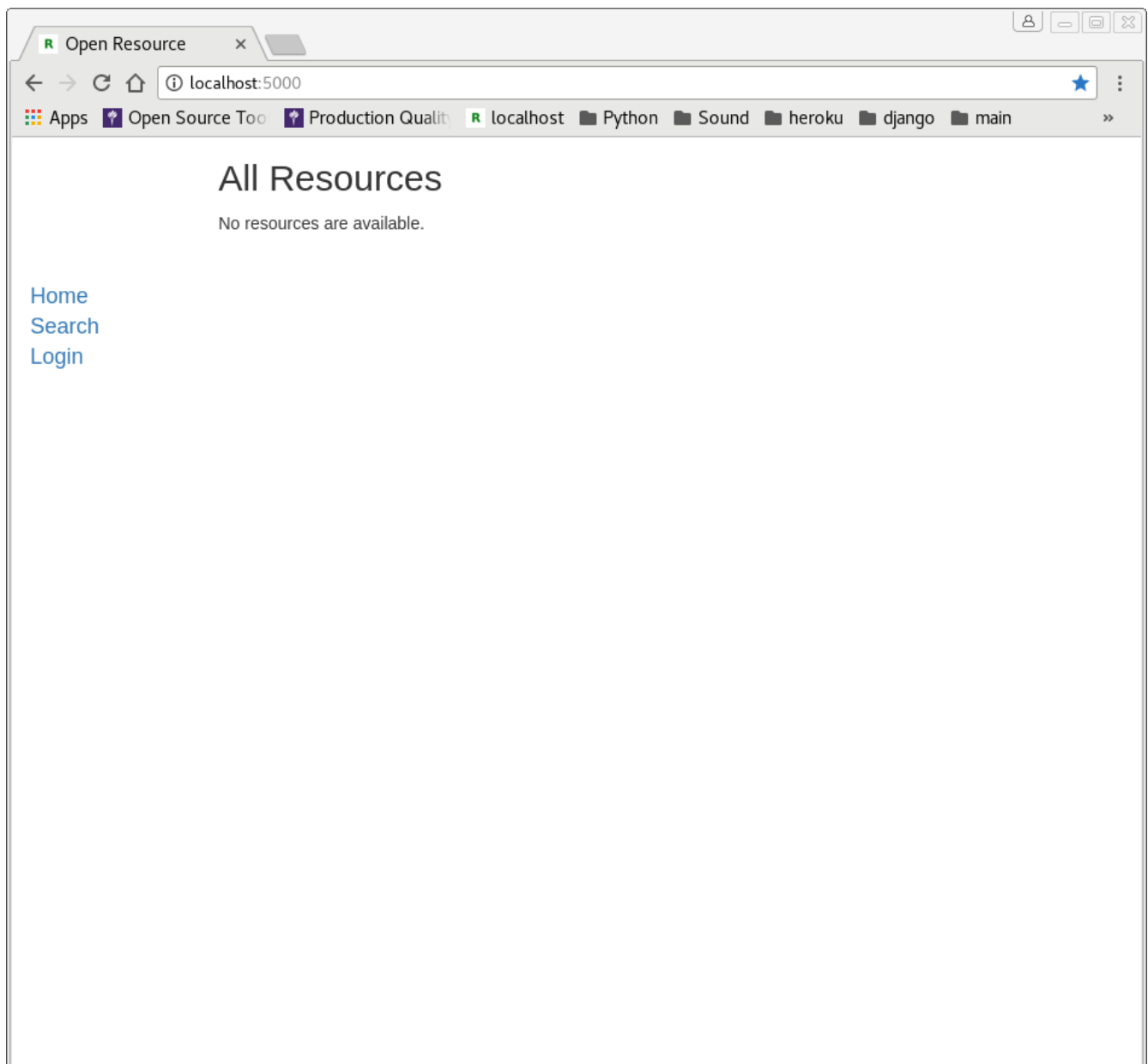John Walling
Open Source Tools
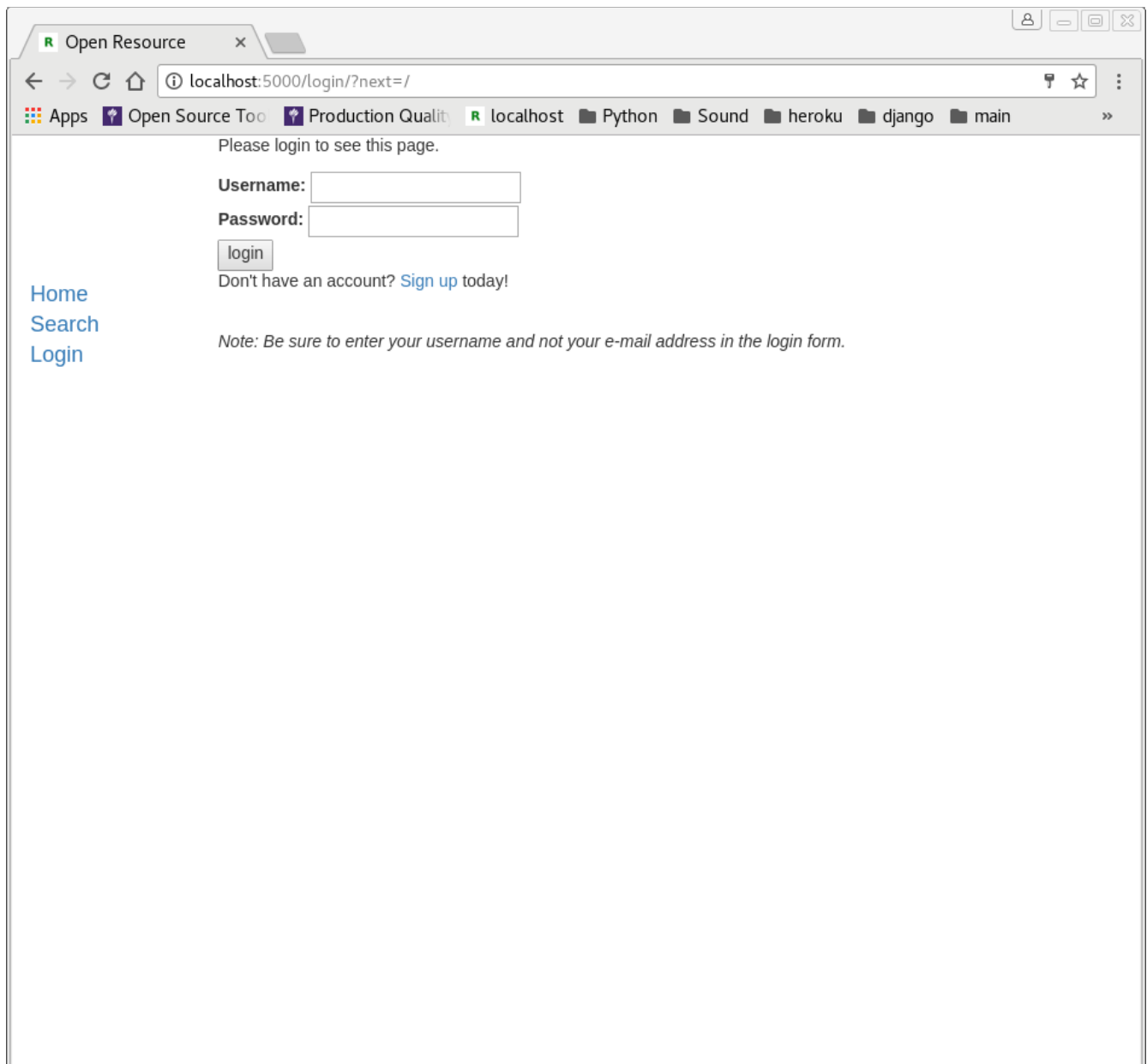CSCI-GA.2246-001

Open Resource Documentation

Note: The screenshots in this guide were created while the site was under active development and are subject to change.

Quick Start Guide

For a logged out user, the homepage will display all resources in the database:

In the sample image above, there is nothing display as no resources have been created. The first step is to create an account by clicking **Login** on the navigation bar.

Click **sign up** to create a user account:

Enter a username, e-mail address, and password. It's important that you use a real e-mail address as the site uses e-mail notifications. Enter the information and click **Create Account**.

! Note: When logging in in the future, be sure to use your username and not your e-mail address in the login form. Some browsers may try to automatically put your e-mail in the username field, but logging in with your e-mail address will not work!

You will be logged in automatically and redirected back to the home page:
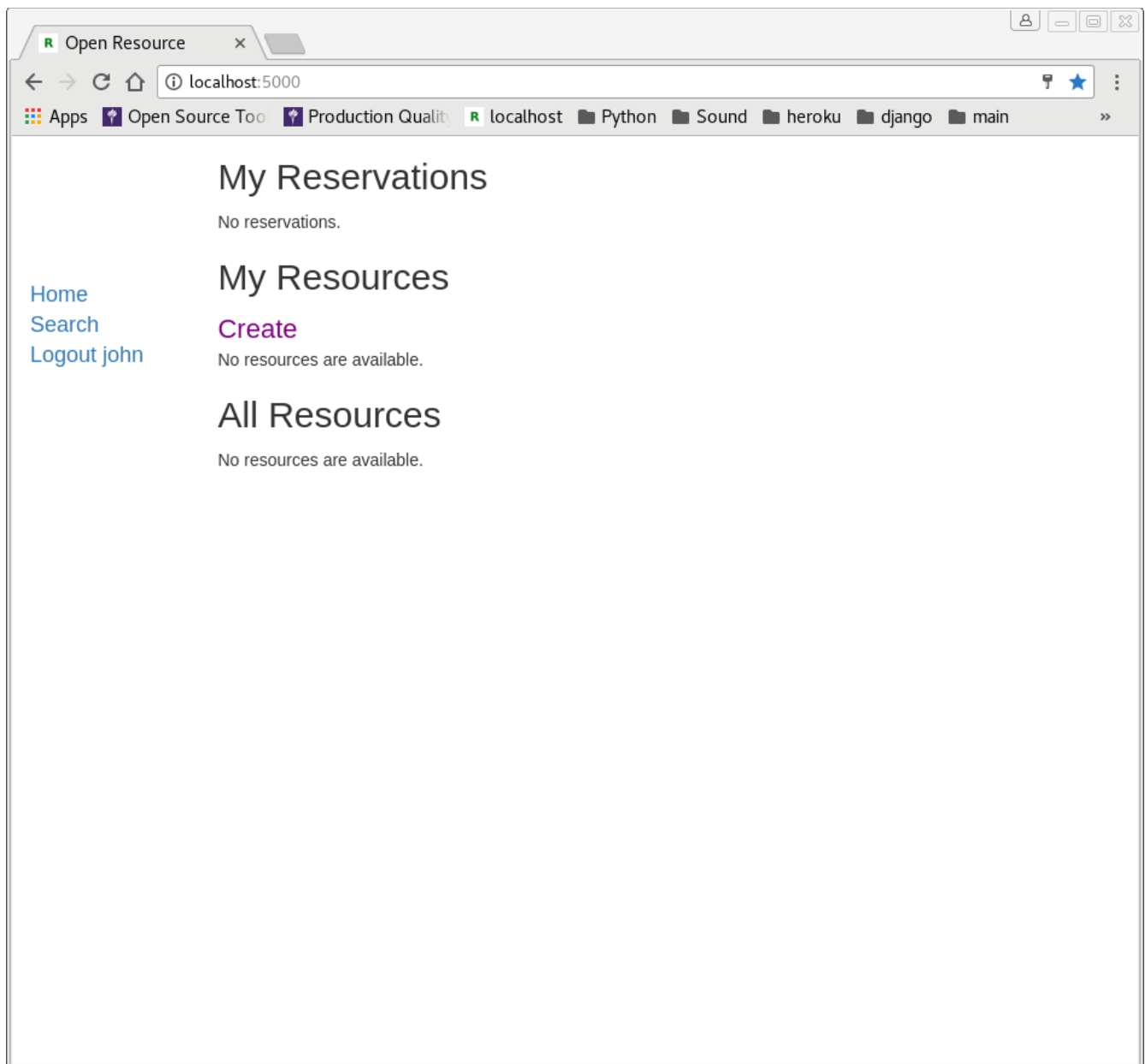
Now that you are logged in, the home page will also show any resources that you've created and any reservations that you have made. Click **Create** to create a new resource:

The create resource page contains all the options available for creating a new resource. The options are as follows:

Name: Name of the resource (ie, Library Book)

Available start time: The start date and time when the resource is available for reservations (ie, 10/25/2018 14:30)

Available end time: The end date and time when the resource is available for reservations (ie, 10/25/2018 18:30)

Capacity: The capacity of a resource describes the maximum number of users who can reserve the resource at any moment in time. The capacity must be greater than zero. (ie, 1)

Image (Optional): An image for the resource to be displayed on the resource details page. The image will be displayed 200x200 pixels.

Description (Optional): A description of the resource. (ie, A book about cars.)

Tags (Optional): A list of whitespace seperated tags which describe the resource.

Enter the information as shown in the screenshot below and press **Create Resource**:

You will be redirected back to the home page and your newly created resource will be shown:

The **green message bar** at the top of the screen tells us the creation was successful. The resource now appears under My Resources as well as All Resources. Click on the resource name **Bike** to show the resource details page:

Edit: Clicking this link will bring you to the Edit Resource page.

Image: If you decided to upload an image for the resource, it will be shown here. If not, it will show the default **R** which stands for Resource.

Description: If you provided a description, it will be shown next to the image.

Reservations for this Resource: If there are any upcoming reservations for this resource, they will be shown here. Note also the **Create** button under the Reservations heading which allows us to create a new reservation.

Tags: If you supplied any tags for the resource, they will be shown here in list format.

RSS: The RSS feed for the resource includes all reservations for the resource. Cliking on the RSS icon will direct you to the feed.

All-Time Reservation Count: At the bottom of the page, the all-time reservation count for this resource will be shown. Deleting a reseravtion has no effect on the count.

Let's create a reservation for our resource. Click **Create** under the Reservations heading to be directed to the Create Reservation page:

Creating a reservation is simple. You just need to supply the start time and duration (in minutes) of the desired reservation.

Reservation start time: Desired start date and time for the reservation.
Duration: Desired duration (in minutes) for the reservation.

The hint at the bottom of the page gives examples of the proper format for entering a date/time. Let's create a reservation. Enter the information as follows:

Here we want to create a 15 minute reservation starting at 2:30 PM. Click **Create Reservation** to create the reservation and you will be redirected back to the home page:

Successfully created reservation for resource Bike.

My Reservations

Resource	Reserved By	E-mail	Start Time	End Time	Duration (Minutes)	Details	Delete
Bike	john	jw3877@nyu.edu	Oct. 25, 2018, 2:30 p.m.	Oct. 25, 2018, 2:45 p.m.	15	Link	Delete

Home
Search
Logout john

My Resources

Create

Resource	Owner	E-mail	Start Time	End Time	Capacity
Bike	john	jw3877@nyu.edu	Oct. 25, 2018, 2:30 p.m.	Oct. 25, 2018, 3 p.m.	1

All Resources

Resource	Owner	E-mail	Start Time	End Time	Capacity
Bike	john	jw3877@nyu.edu	Oct. 25, 2018, 2:30 p.m.	Oct. 25, 2018, 3 p.m.	1

Note once again the **green message bar** which tells us that the reservation was successfully created. The reservation now appears under My Reservations. Notice that tables displaying **reservations** are **green** and tables displaying **resources** are **blue**.

You should have also received an e-mail confirmation. Open up your inbox and verify that it has arrived:
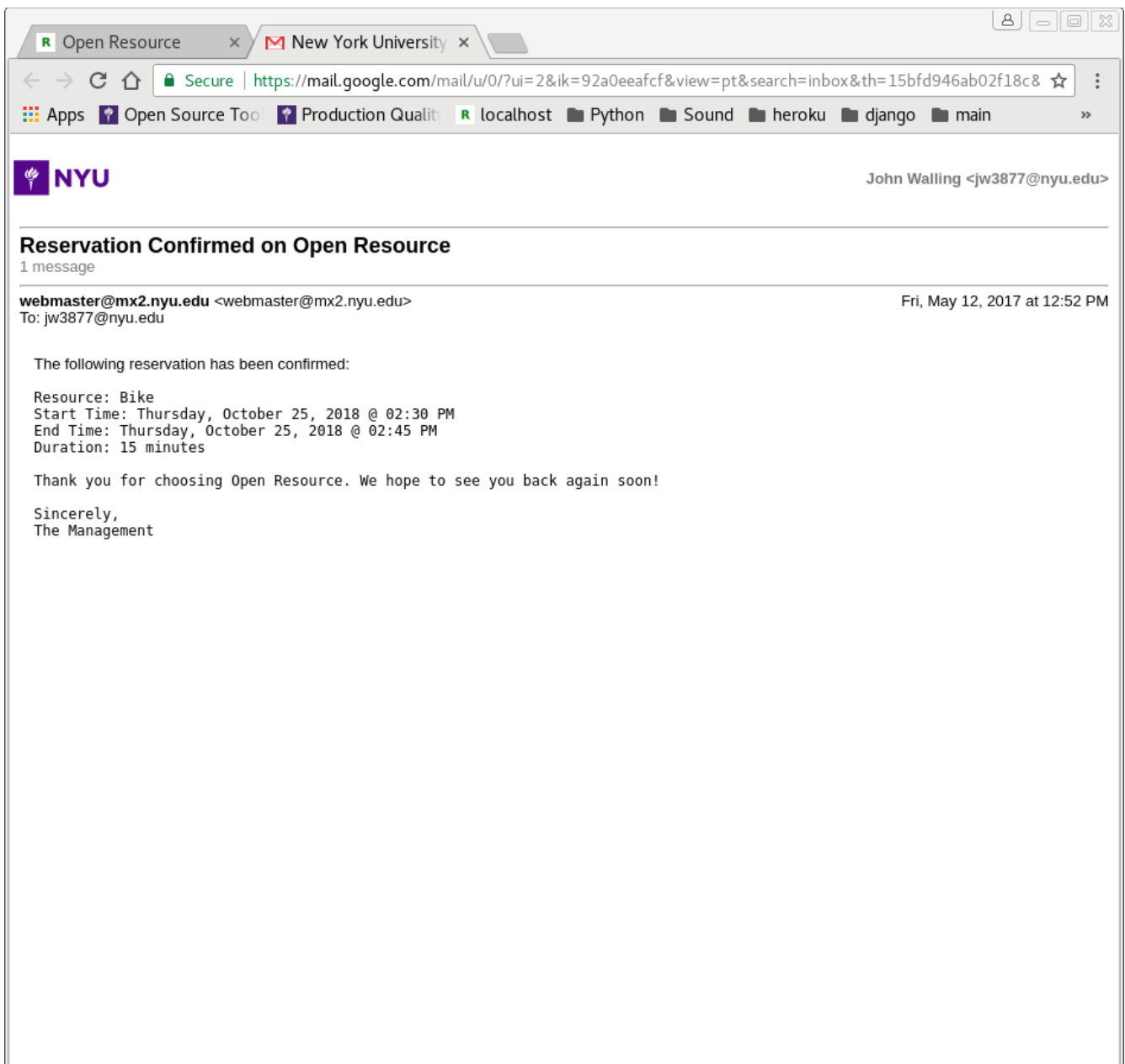
The e-mail confirms once again that the reservation went through and gives the name, start date, end date, and duration along with a thank you message.

Go back to the home page and click on your username in one of the tables. It will bring you to the User Details page:

john

john's Resources

Home
Search
Logout john

Resource	Owner	E-mail	Start Time	End Time	Capacity
Bike	john	jw3877@nyu.edu	Oct. 25, 2018, 2:30 p.m.	Oct. 25, 2018, 3 p.m.	1

john's Reservations

Resource	Reserved By	E-mail	Start Time	End Time	Duration (Minutes)	Details	Delete
Bike	john	jw3877@nyu.edu	Oct. 25, 2018, 2:30 p.m.	Oct. 25, 2018, 2:45 p.m.	15	Link	-

The User Details page shows any resources that the user owns as well as their upcoming reservations. Click on the word **Link** in the reservation table to be redirected to the Reservation Details page:

This page displays the details for the reservation we've created. Note that there is a **Delete** link shown since we created the reservation. Let's delete the reservation. Go ahead and click the **Delete** button to be brought to the delete confirmation page:

Reservation

Resource	Reserved By	E-mail	Start Time	End Time	Duration (Minutes)
Bike	john	jw3877@nyu.edu	Oct. 25, 2018, 2:30 p.m.	Oct. 25, 2018, 2:45 p.m.	15

Are you sure you want to delete this reservation?

⚠ Warning: This action cannot be undone.

Delete Reservation

Home
Search
Logout john
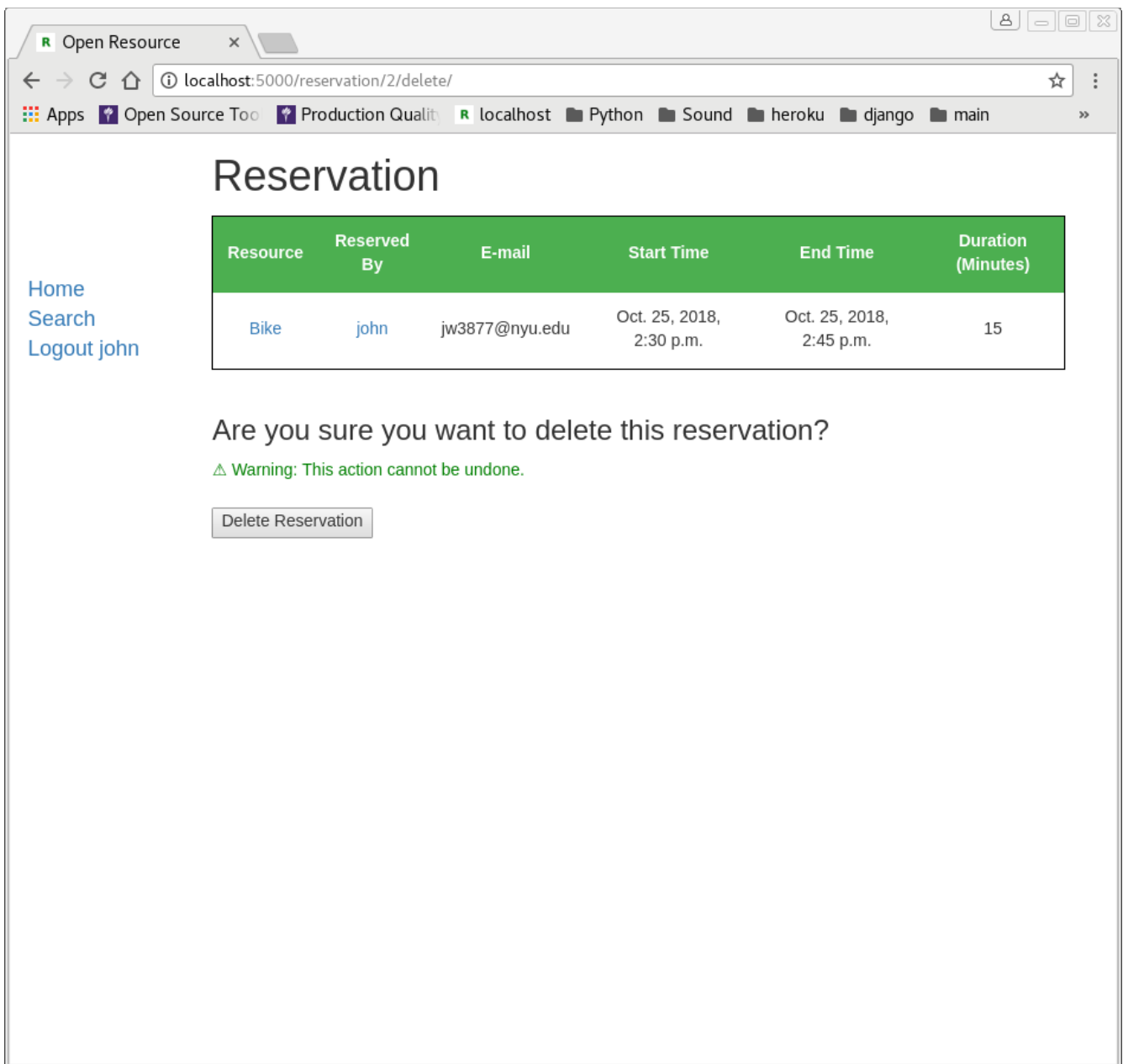
As expcted, it warns you that the action is irreversible. Click **Delete Reservation** to confirm that we want to delete the reservation:

Successfully deleted reservation for resource Bike.

My Reservations

No reservations.

Home
Search
Logout john

My Resources

Create

Resource	Owner	E-mail	Start Time	End Time	Capacity
Bike	john	jw3877@nyu.edu	Oct. 25, 2018, 2:30 p.m.	Oct. 25, 2018, 3 p.m.	1

All Resources

Resource	Owner	E-mail	Start Time	End Time	Capacity
Bike	john	jw3877@nyu.edu	Oct. 25, 2018, 2:30 p.m.	Oct. 25, 2018, 3 p.m.	1

The message bars confirms the delete was successful and it is no longer shown under My Reservations.

Let's create another resource by clicking **Create.** Let's call it Big Rig:

This time we'll use some of the optional fields. Set the capacity to 2 (since 2 users can fit inside at the same time) and give it a description. We'll give it the tags truck and vehicle. Note that mutliple tags may be specified as long as they are separated by whitespace. Finally, select an image for our big rig by clicking **Choose File** under the Image heading.

Then click **Create Resource:**

My Reservations

No reservations.

Home
Search
Logout john

My Resources

Create

Resource	Owner	E-mail	Start Time	End Time	Capacity
Big Rig	john	jw3877@nyu.edu	Oct. 25, 2018, 11:30 a.m.	Oct. 25, 2018, 4:30 p.m.	2
Bike	john	jw3877@nyu.edu	Oct. 25, 2018, 2:30 p.m.	Oct. 25, 2018, 3 p.m.	1

All Resources

Resource	Owner	E-mail	Start Time	End Time	Capacity
Bike	john	jw3877@nyu.edu	Oct. 25, 2018, 2:30 p.m.	Oct. 25, 2018, 3 p.m.	1
Big Rig	john	jw3877@nyu.edu	Oct. 25, 2018, 11:30 a.m.	Oct. 25, 2018, 4:30 p.m.	2

Once again, the truck will be included in My Resources as well as All Resources. Click on **Big Rig** to be directed to the resource details page:

The uploaded image will be shown (sized 200x200 pixels) along with the description we entered. Also notice the tags appear as a list under the Tags heading.

Click the tag truck to be directed to the Tag Details page:

This page will display also resources which use the tag. Currently, we have only created one resource which uses this tag so it is the only one shown. As usual, you can click the resource name or user name to be brought to their respective detail pages.

Let's try out the Search functionality. Click **Search** on the left-hand navigation bar to be brought to the search page:

Here we can search for resources by name or availability period.

Name: A string which the resource name contains. It does not need to be the complete name of a resource.
Start Time: The desired start time of the resource, just like we entered one when we created a resource.
Duration: The desired duration of the resource.

! Note: The start time and duration must be supplied together or not at all.

Let's search for some resources. Type bi into the name field and press **Search:**

The results show us 2 resources whose name contain bi -- our bike and big rig. Note that the search is case-insensitive and uses **GET** rather than POST for easy bookmarking and sharing search results.

Let's create another reservation for our bike. Head back to the home page by cliking **Home** on the left-navgiation bar, then **Bike**, then **Create** to create a new reservation for the bike resource:

Create new reservation

You are creating a reservation for the following resource:

Resource	Owner	E-mail	Start Time	End Time	Capacity
Bike	john	jw3877@nyu.edu	Oct. 25, 2018, 2:30 p.m.	Oct. 25, 2018, 3 p.m.	1

Reservation start time: 10/25/2018 14:30

Duration: 20

Create Reservation

Use any of the following formats when entering a date/time:

- *10/25/2018 14:30*
- *10/25/18 14:30*
- *2018-10-25 14:30*
- *2018-10-25 14:30:59*
- *10/25/2018 14:30:59*
- *10/25/18 14:30:59*

Home
Search
Logout john

We'll create a 20 minute reservation for the bike. Enter the details and click **Create Reservation.**

Great, the reservation is created and we are brought back to the home page. Now let's create a reservation for our Big Rig. Click **Big Rig**, then **Create** and enter the following details on the Create Reservation page:

Create new reservation

You are creating a reservation for the following resource:

Home
Search
Logout john

Resource	Owner	E-mail	Start Time	End Time	Capacity
Big Rig	john	jw3877@nyu.edu	Oct. 25, 2018, 11:30 a.m.	Oct. 25, 2018, 4:30 p.m.	2

Reservation start time: 10/25/2018 14:40

Duration: 60

Create Reservation

Use any of the following formats when entering a date/time:

- *10/25/2018 14:30*
- *10/25/18 14:30*
- *2018-10-25 14:30*
- *2018-10-25 14:30:59*
- *10/25/2018 14:30:59*
- *10/25/18 14:30:59*

Ahh, a nice hour in the big rig sounds like fun. Go ahead and click **Create Reservation:**

Create new reservation

You are creating a reservation for the following resource:

Resource	Owner	E-mail	Start Time	End Time	Capacity
Big Rig	john	jw3877@nyu.edu	Oct. 25, 2018, 11:30 a.m.	Oct. 25, 2018, 4:30 p.m.	2

Home
Search
Logout john

The reservation that you are trying to create **conflicts** with the following reservations:

Resource	Reserved By	E-mail	Start Time	End Time	Duration (Minutes)	Details	Delete
Bike	john	jw3877@nyu.edu	Oct. 25, 2018, 2:30 p.m.	Oct. 25, 2018, 2:50 p.m.	20	Link	Delete

- You have an existing reservation that conflicts with the requested time slot.

Reservation start time: 10/25/2018 14:40

Duration: 60

Create Reservation

Use any of the following formats when entering a date/time:

- *10/25/2018 14:30*
- *10/25/18 14:30*
- *2018-10-25 14:30*
- *2018-10-25 14:30:59*
- *10/25/2018 14:30:59*
- *10/25/18 14:30:59*

Oh no, this is terrible! It looks like there are a lot of errors and system went haywire! Must be bad programming.

Oh no, I see now. The reservation we were trying to create conflicted with the reservation we already have. We can't be in 2 places at once, after all. The **red table** show us the **conflicting reservations** and the error on the form tells us its our own reservation that has caused the problem.

We have a link to delete the conflicting reservation or we can change the time of the reservation we are trying to create so that it fits into our schedule.

Well, I'm free at 5 o'clock so lets take it for a spin:

Nope! The errors above the form tell us the resource isnt' available then. Okay, we'll see the start time to 10/25/2018 15:00 (which is 3 PM) and create a 60 minute reservation. Create the reservation and logout.

This time our resources appear under All Resources. Even logged out users can see all resources in the system.

Click **Login** and then **Sign Up** to create a new user. Let's name him peter and give him a crazy e-mail address.

! **Note: This website uses the e-mail address to send e-mail to users.**

Okay, so we're logged in as Peter now. Peter wants to make a reservation for the big rig, so go ahead and head to the Create Reservation page.

Peter also wants to ride it between 3-4 so enter 10/25/2018 15:00 and 60 for the start time and duration. After creating the reservation, click on **Big Rig** to head back to the Resource Details page:

What?! There are 2 reservations scheduled for the same time slot! I am tired of all this bad programming!

Oh, I see now. The capacity of this resource is 2 which means that this resource can be reserved by up to 2 people at the same time.

The quick start guide ends here, more details in the sections that follow.

Validation

Create Resource: Can't create a resource that begins in the past:

Create resource: Start time must come before end time:

← → C ⌂ | ⓘ localhost:5000/resource/create/ | ☆ ⋮

Create new resource:

- Start time must come before end time.

Name: Past Resource

Home
Search
Logout peter

Available start time: 5/20/2017 20:00

Availabile end time: 5/20/2017 19:00

Capacity: 1

Image:

Choose File | No file chosen

Description:

Tags:

Create Resource

Use any of the following formats when entering a date/time:

- *10/25/2018 14:30*
- *10/25/18 14:30*
- *2018-10-25 14:30*
- *2018-10-25 14:30:59*
- *10/25/2018 14:30:59*
- *10/25/18 14:30:59*

Create Resource: Capacity must be > 0:

localhost:5000/resource/create/

Create new resource:

Name: Zero Capacity

Available start time: 5/20/2017 20:00

Availabile end time: 5/20/2017 22:00

Home
Search
Logout peter

- Capacity must be > 0.

Capacity: 0

Image:

Choose File   No file chosen

Description:

Tags:

Create Resource

Use any of the following formats when entering a date/time:

- *10/25/2018 14:30*
- *10/25/18 14:30*
- *2018-10-25 14:30*
- *2018-10-25 14:30:59*
- *10/25/2018 14:30:59*
- *10/25/18 14:30:59*

Create Reservation: Start time outside availability window:

Create new reservation

You are creating a reservation for the following resource:

Resource	Owner	E-mail	Start Time	End Time	Capacity
Pencil	peter	peter21s3@z6n4o.net	Oct. 25, 2018, 2:30 p.m.	Oct. 25, 2018, 4 p.m.	1

- Start time outside resource availability window.

Reservation start time: 10/25/18 14:29

Duration: 13

Create Reservation

Use any of the following formats when entering a date/time:

- *10/25/2018 14:30*
- *10/25/18 14:30*
- *2018-10-25 14:30*
- *2018-10-25 14:30:59*
- *10/25/2018 14:30:59*
- *10/25/18 14:30:59*

Home
Search
Logout peter

Create Reservation: End time outside of availability window

Create Reservation: Start and End time outside of availability window:

Create new reservation

You are creating a reservation for the following resource:

Resource	Owner	E-mail	Start Time	End Time	Capacity
Pencil	peter	peter21s3@z6n4o.net	Oct. 25, 2018, 2:30 p.m.	Oct. 25, 2018, 4 p.m.	1

- Start time outside resource availability window.
- End time outside resource availability window.

Reservation start time: 10/25/18 14:20

Duration: 200

Create Reservation

Use any of the following formats when entering a date/time:

- *10/25/2018 14:30*
- *10/25/18 14:30*
- *2018-10-25 14:30*
- *2018-10-25 14:30:59*
- *10/25/2018 14:30:59*
- *10/25/18 14:30:59*

Create Reservation: User has a reservation which conflicts with their own reservation:

Create new reservation

You are creating a reservation for the following resource:

Resource	Owner	E-mail	Start Time	End Time	Capacity
Pencil	peter	peter21s3@z6n4o.net	Oct. 25, 2018, 2:30 p.m.	Oct. 25, 2018, 4 p.m.	1

The reservation that you are trying to create **conflicts** with the following reservations:

Resource	Reserved By	E-mail	Start Time	End Time	Duration (Minutes)	Details	Delete
Big Rig	peter	peter21s3@z6n4o.net	Oct. 25, 2018, 2:30 p.m.	Oct. 25, 2018, 2:45 p.m.	15	Link	Delete

- You have an existing reservation that conflicts with the requested time slot.

Reservation start time: 10/25/18 14:30

Duration: 60

Create Reservation

Use any of the following formats when entering a date/time:

- *10/25/2018 14:30*
- *10/25/18 14:30*
- *2018-10-25 14:30*
- *2018-10-25 14:30:59*
- *10/25/2018 14:30:59*
- *10/25/18 14:30:59*

Home
Search
Logout peter

Create Reservation: Another user has a reservation which conflicts with reservation:

Create Reservation: Resource with capacity > 1 is at max capacity due to multiple user reservations:

Create new reservation

You are creating a reservation for the following resource:

Resource	Owner	E-mail	Start Time	End Time	Capacity
Big Rig	john	jw3877@nyu.edu	Oct. 25, 2018, 11:30 a.m.	Oct. 25, 2018, 4:30 p.m.	2

The reservation that you are trying to create **conflicts** with the following reservations:

Resource	Reserved By	E-mail	Start Time	End Time	Duration (Minutes)	Details	Delete
Big Rig	john	jw3877@nyu.edu	Oct. 25, 2018, 3 p.m.	Oct. 25, 2018, 4 p.m.	60	Link	-
Big Rig	peter	peter21s3@z6n4o.net	Oct. 25, 2018, 3 p.m.	Oct. 25, 2018, 3:30 p.m.	30	Link	-

- Resource is at max capacity for the requested time slot.

Reservation start time: 10/25/18 15:00

Duration: 15

Create Reservation

Use any of the following formats when entering a date/time:

- *10/25/2018 14:30*
- *10/25/18 14:30*
- *2018-10-25 14:30*
- *2018-10-25 14:30:59*
- *10/25/2018 14:30:59*

Create Reservation: Duration must be > 0

Third Party Libraries

SendGrid

https://sendgrid.com/

SendGrid was used for e-mail delivery services. It is available as an add-on for a Heroku application.

Mozilla

https://developer.mozilla.org/en-US/docs/Learn/Server-side/Django/Authentication#Login_template

Django's user authentication system does not come with default templates. Mozilla provides great sample templates to get started with and recommends using them. They include the .html files in **reservation/templates/registration** *and* **base_generic.html** *as they shown on the website above. They were used as a starting point for learning Django's user authentication system and many have since been modified to work with the project.*

Extras

If a resource expires, the Resource Details page will no longer show a link to create a reservation. If the user tries manually navigating to the Create Reservation page for that resource, they will be shown a message that the resource has expired:

The following resource has expired:

Resource	Owner	E-mail	Start Time	End Time	Capacity
oldone	peter	peter21s3@z6n4o.net	May 12, 2017, 3:22 p.m.	May 12, 2017, 3:24 p.m.	1

Home
Search
Logout peter

Reservations are no longer being scheduled for this resource.

Return to resource details page.