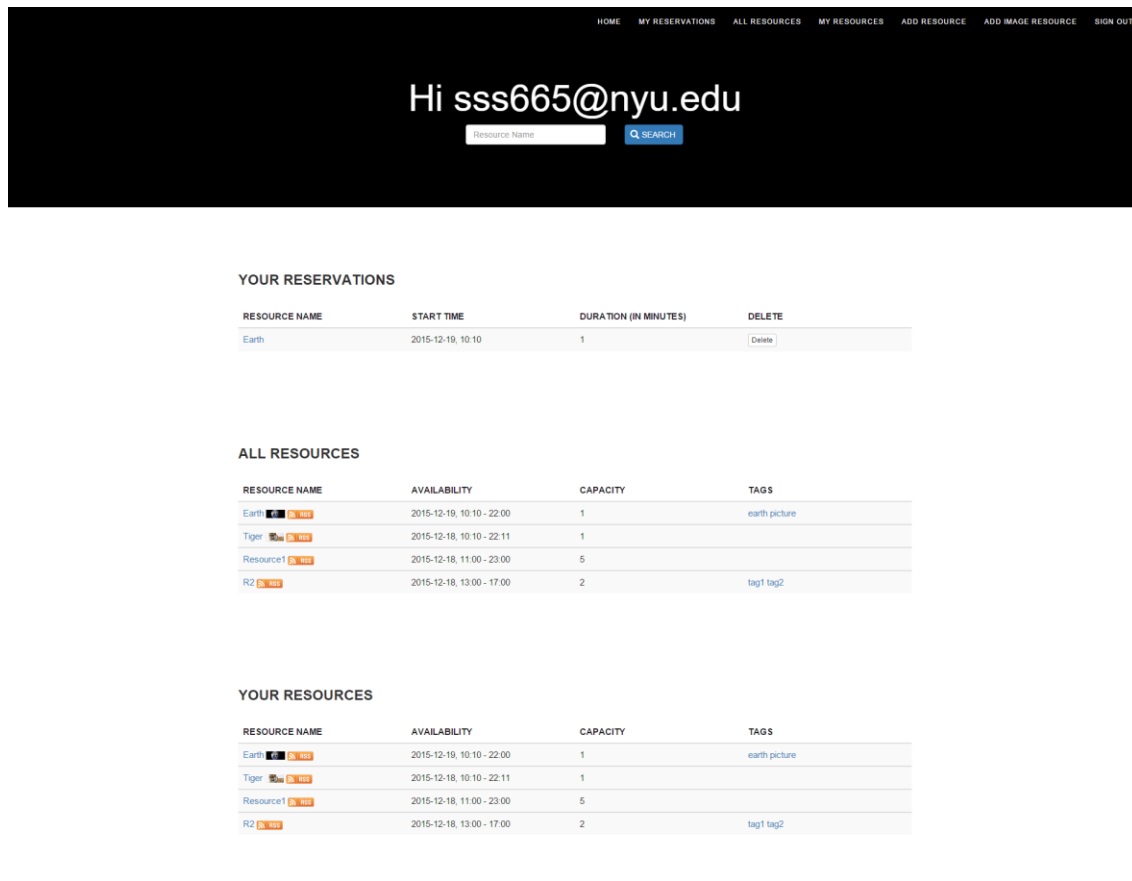


The application is hosted on <http://sss665-reservationsystem.appspot.com/>

Basic Requirements:

1. When the user accesses the application, he is required to sign in using a google account. After this the user can create resources and reserve them.
2. LANDING PAGE:

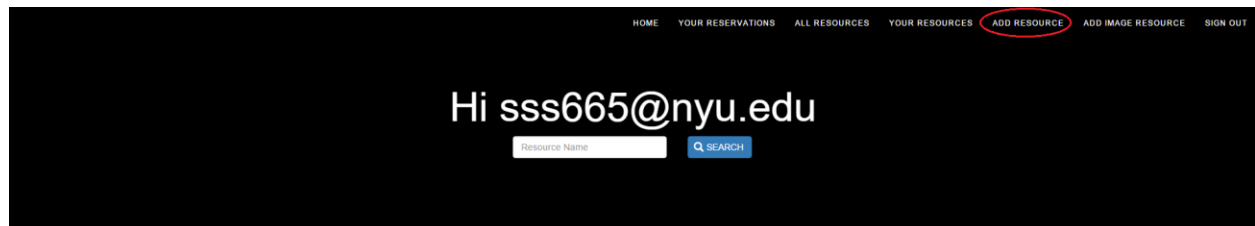


- a. The application landing page has the following sections:
  - i. YOUR RESERVATIONS :
    1. These are the reservations made by the current user.
    2. The results are sorted by the reservations start time.
    3. The reservations that have their end time before the current time are not shown in this table. They are not deleted from the datastore, just not shown.
    4. The user has the option of deleting the reservations he created.
  - ii. ALL RESOURCES:
    1. These are all resources that exist in the system.
    2. They are ordered by the lastReservedTime.
  - iii. YOUR RESOURCES:
    1. These are all resources owned by the user.
    2. They are ordered by the lastReservedTime.

## OPEN SOURCE TOOLS: FINAL PROJECT

### 3. ADD RESOURCE:





- User can add a resource by clicking on the Add Resource link on the top-right corner of the landing page.







#### YOUR RESERVATIONS

RESOURCE NAME	START TIME	DURATION (IN MINUTES)	DELETE
Earth	2015-12-19, 10:10	1	<a href="#">Delete</a>

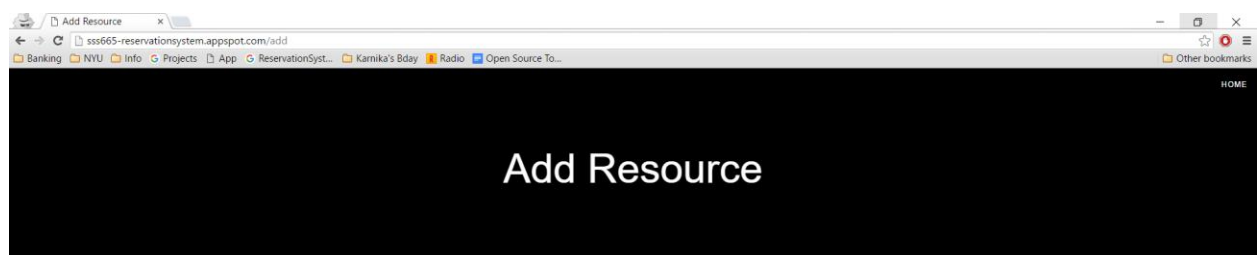
#### ALL RESOURCES

RESOURCE NAME	AVAILABILITY	CAPACITY	TAGS
Earth 	2015-12-19, 10:10 - 22:00	1	<a href="#">earth picture</a>
Tiger 	2015-12-18, 10:10 - 22:11	1	
Resource1 	2015-12-18, 11:00 - 23:00	5	
R2 	2015-12-18, 13:00 - 17:00	2	<a href="#">tag1 tag2</a>

#### YOUR RESOURCES

RESOURCE NAME	AVAILABILITY	CAPACITY	TAGS
Earth 	2015-12-19, 10:10 - 22:00	1	<a href="#">earth picture</a>
Tiger 	2015-12-18, 10:10 - 22:11	1	
Resource1 	2015-12-18, 11:00 - 23:00	5	
R2 	2015-12-18, 13:00 - 17:00	2	<a href="#">tag1 tag2</a>

- The Add Resource page looks like:



NAME OF THE RESOURCE	<input type="text" value="Enter the name of the resource"/>
AVAILABLE DATE	<input type="text" value="mm/dd/yyyy"/>
AVAILABILITY START	<input type="text" value="--:-- --"/>
AVAILABILITY END	<input type="text" value="--:-- --"/>
CAPACITY	<input type="text" value="1"/>
TAGS	<input type="text" value="restaurant, room"/>
<input type="button" value="ADD"/>	

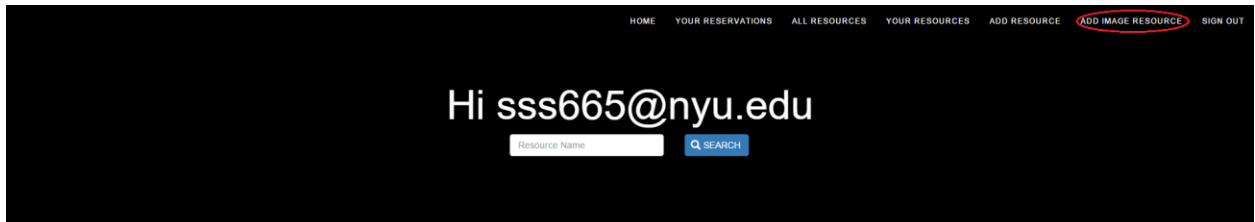
- a. NAME OF THE RESOURCE: The desired name of the resource.
- b. AVAILABLE DATE: The date on which the resource is available (for now, a resource is available only for a single day). This date cannot be less than current date.
- c. AVAILABILITY START: The start time from when the resource is available.
- d. AVAILABILITY END: The end time of the resource availability.
- e. CAPACITY: The number of overlapping reservations allowed (cannot be less than 1).
- f. TAGS: The user can add 0 or more comma (,) separated tags.
- g. ADD button: This button will be enabled only if all the information in the form is valid.

VALIDATIONS:

- a. The end time cannot be less than or equal to the start time.
- b. The end time cannot be less than the current time.

RESULT: Once the resource is successfully added, it is displayed on the landing page under the All Resources and My Resources sections. The lastReserveTime of a new resource is null.









4. ADD IMAGE RESOURCE: The user can add an image resource by clicking on the ADD IMAGE RESOURCE link on the top-right of the landing page.











#### YOUR RESERVATIONS

RESOURCE NAME	START TIME	DURATION (IN MINUTES)	DELETE
Earth	2015-12-19, 10:10	1	<a href="#">Delete</a>

#### ALL RESOURCES

RESOURCE NAME	AVAILABILITY	CAPACITY	TAGS
Earth  	2015-12-19, 10:10 - 22:00	1	<a href="#">earth picture</a>
Tiger  	2015-12-18, 10:10 - 22:11	1	
Resource1  	2015-12-18, 11:00 - 23:00	5	
R2  	2015-12-18, 13:00 - 17:00	2	<a href="#">tag1 tag2</a>

#### YOUR RESOURCES

RESOURCE NAME	AVAILABILITY	CAPACITY	TAGS
Earth  	2015-12-19, 10:10 - 22:00	1	<a href="#">earth picture</a>
Tiger  	2015-12-18, 10:10 - 22:11	1	
Resource1  	2015-12-18, 11:00 - 23:00	5	
R2  	2015-12-18, 13:00 - 17:00	2	<a href="#">tag1 tag2</a>

- a. The Add Image Resource page is as follows:

The screenshot shows the 'Add Image Resource' page. The title 'Add Image Resource' is displayed at the top, followed by a warning message: 'PLEASE SELECT IMAGES LESS THAN 1MB'. Below this, the form contains the following fields:

- NAME OF THE RESOURCE:
- DESCRIPTION:
- IMAGE LOCATION:  No file chosen
- AVAILABLE DATE:
- AVAILABILITY START:
- AVAILABILITY END:
- CAPACITY:
- TAGS:

At the bottom of the form is a blue button labeled 'ADD IMAGE RESOURCE'.

- a. DESCRIPTION: Description of the image that is uploaded.
- b. IMAGE LOCATION: Specify the location of the image to be uploaded.

c. Other fields are the same as the Add Resource Page

### LIMITATIONS:

- a. Due to size restrictions on the BlobProperty of the App Engine DataStore, users can only upload images that are less than 1MB in size. If images of larger size are uploaded the user will receive an App Engine error.



### VALIDATIONS:

- a. In addition to the validations of the Add Resource page, the description and file fields cannot be empty.


**RESULT:** Once the resource is successfully added, it is displayed on the landing page under the All Resources and My Resources sections. A thumbnail of the uploaded image is displayed on next to the name of the resource in these two sections.

RESOURCE NAME	START TIME	DURATION (IN MINUTES)	DELETE
---------------	------------	-----------------------	--------

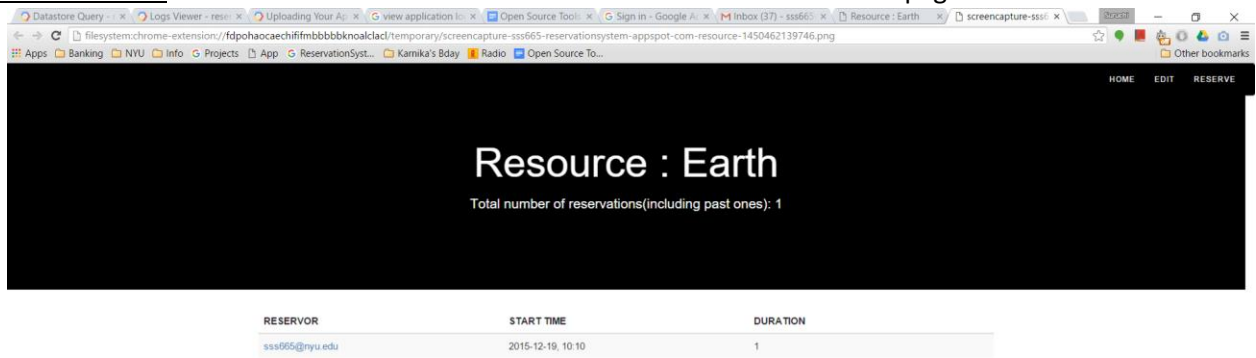
  

ALL RESOURCES			
RESOURCE NAME	AVAILABILITY	CAPACITY	TAGS
 tiger	2015-12-18, 10:10 - 22:11	1	
Resource1	2015-12-18, 11:00 - 23:00	5	
 Earth	2015-12-19, 10:10 - 22:00	1	earth picture
R2	2015-12-18, 13:00 - 17:00	2	tag1 tag2

YOUR RESOURCES			
RESOURCE NAME	AVAILABILITY	CAPACITY	TAGS
 Tiger	2015-12-18, 10:10 - 22:11	1	

5. RESOURCE PAGE: When the user clicks on the name of a resource the resource page is launched:



- a. EDIT: The Edit link will be visible only to the owner of the resource.
- b. RESERVE: The Reserve link is visible to everyone
- c. HOME : Link to take the user back to the home page
- d. The total number of reservations, include the current and past(undeleted) reservations.
- e. All current and upcoming reservations for the resource are displayed on this page.
  - a. RESERVOR: This is a link to the page of the user who created the reservation.
  - b. START TIME: This is the start time of the reservation
  - c. DURATION: Duration of the reservation in minutes.

6. EDIT RESOURCE: The edit resource pages for a normal resource and an image resource are as follows:

- a. All existing information about the resource is loaded in the appropriate fields.

VALIDATIONS:

- a. The validations are the same as the Add Resource/Add Image Resource page

LIMITATIONS: I am sure that the following limitations could be avoided, but due to lack of time I did not look into it.

- a. If the user edits a resource, all the reservations for that resource are lost.
- b. The image path for the IMAGE LOCATION field in the Edit Resource page for an image resource is not populated with the original path. This results in the user selecting the image every time the image resource is edited.

- c. A resource cannot be changed from a normal resource to an image resource and vice-versa.

RESULT: If the editing is successful, the user is redirected to the home page.



## 7. RESERVE RESOURCE:

The screenshot shows a web browser window with multiple tabs. The active tab is titled 'Add reservation' and shows a form for reserving a resource. The form has a dark blue header with the text 'Reserve Resource1'. Below the header, there are three input fields: 'AVAILABLE DATE' with a value of '2015-12-18', 'START TIME' with a value of '11:00 AM', and 'DURATION(IN MINUTES)' with a value of '1'. A blue 'RESERVE' button is located below the input fields. The browser's address bar shows the URL 'sss665-reservationsystem.appspot.com/addReservation?val=d6e28feb-904e-4691-9b7a-6ea864dd02cf'.

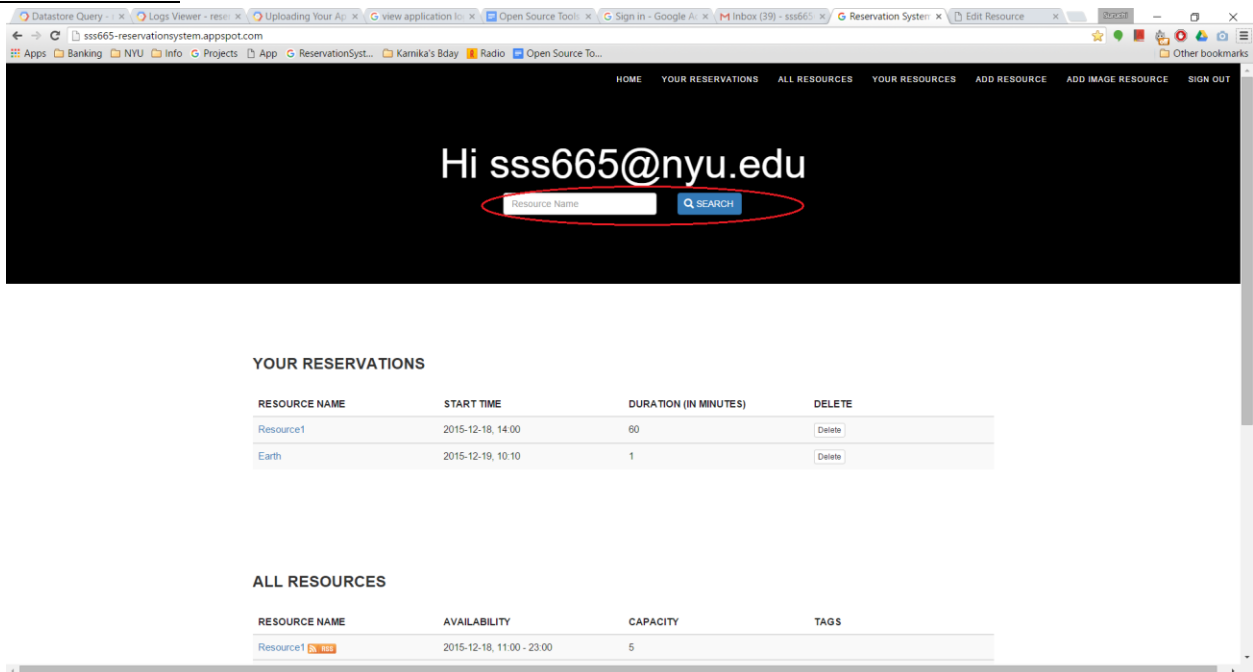
- a. AVAILABLE DATE: The date on which the resource is available. Since the resource is available only on a single day, this field is not editable.
- b. START TIME: The default value of this field is the resource availability time.
- c. DURATION: The duration of the reservation in minutes.

### VALIDATIONS:

- a. The duration cannot be less than 1 minute.
- b. The end time of the reservation cannot exceed the availability end time of the resource. The RESERVE button will be disabled in this case and an error message will be shown.
- c. If the number of overlapping reservations for a resource exceed the capacity of the resource, the reservation will not be completed and an error message will be shown.
- d. The reservation will not be accepted if the end time of the reservation has passed.

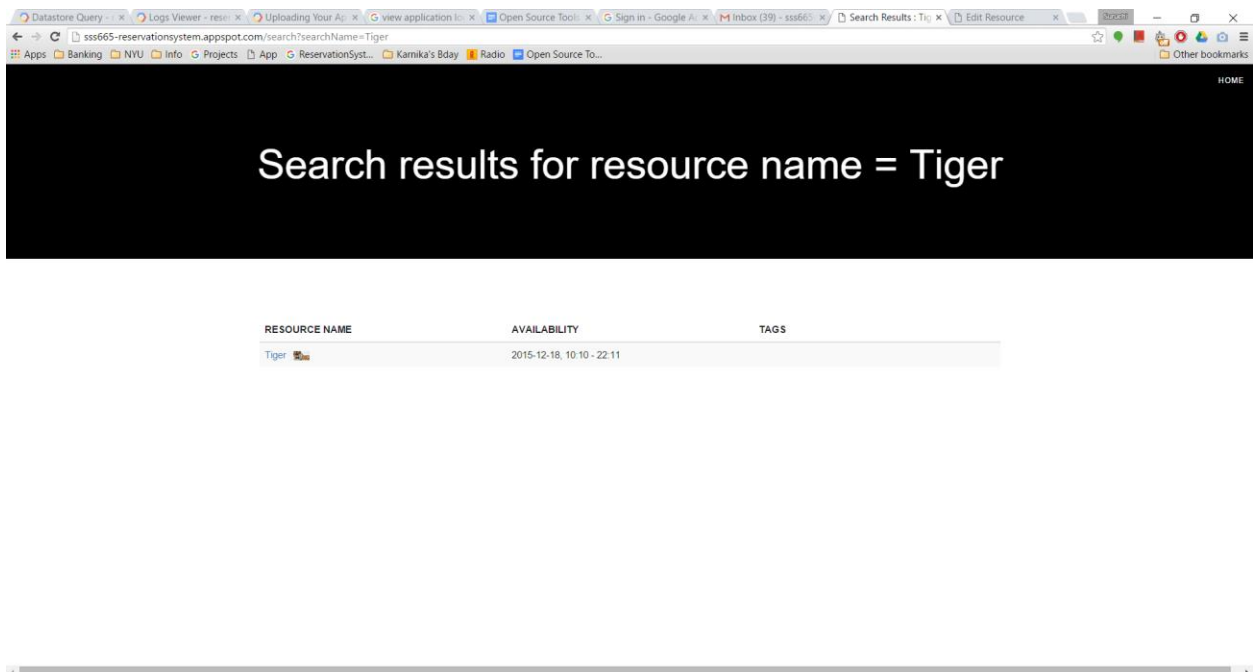
RESULT: Once the reservation is successfully completed, the user is redirected to the home page. The reservation is now shown in the Your Reservations section of the home page. The user who reserved the resource will receive an email from [sss665@nyu.edu](mailto:sss665@nyu.edu) stating that the resource is reserved. The user will also receive a mail when the reservation time for that resource has begun.

## 8. SEARCH BY NAME:

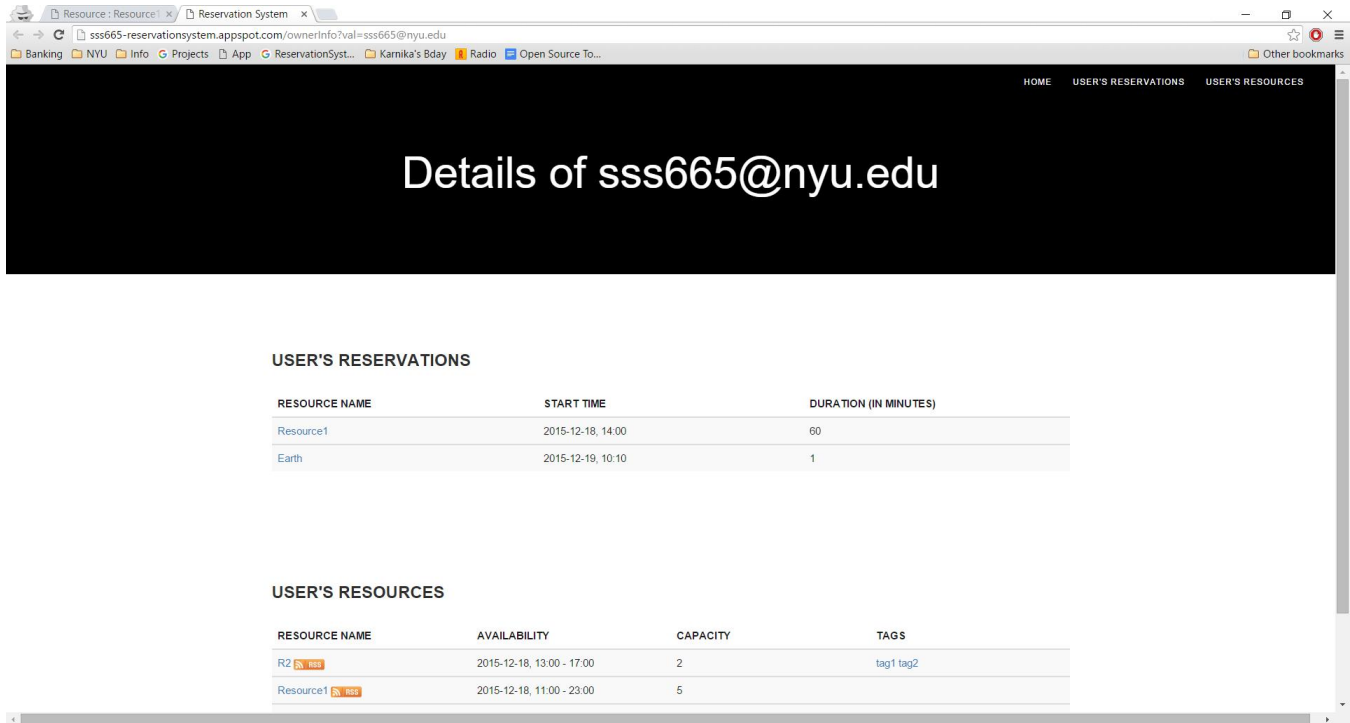


a. The user can enter the name of a resource and search for it in existing resources.

RESULT: The search results page is as follows:



9. OWNER PAGE: The user can click on the name of the owner and go to owner page. This page displays all of the reservations of the user and the resources owned by that user.





The screenshot shows a web browser window with the URL `sss665-reservationsystem.appspot.com/ownerInfo?val=sss665@nyu.edu`. The page has a dark header with the text "Details of sss665@nyu.edu" and navigation links: HOME, USER'S RESERVATIONS, and USER'S RESOURCES. Below the header, there are two sections: "USER'S RESERVATIONS" and "USER'S RESOURCES".

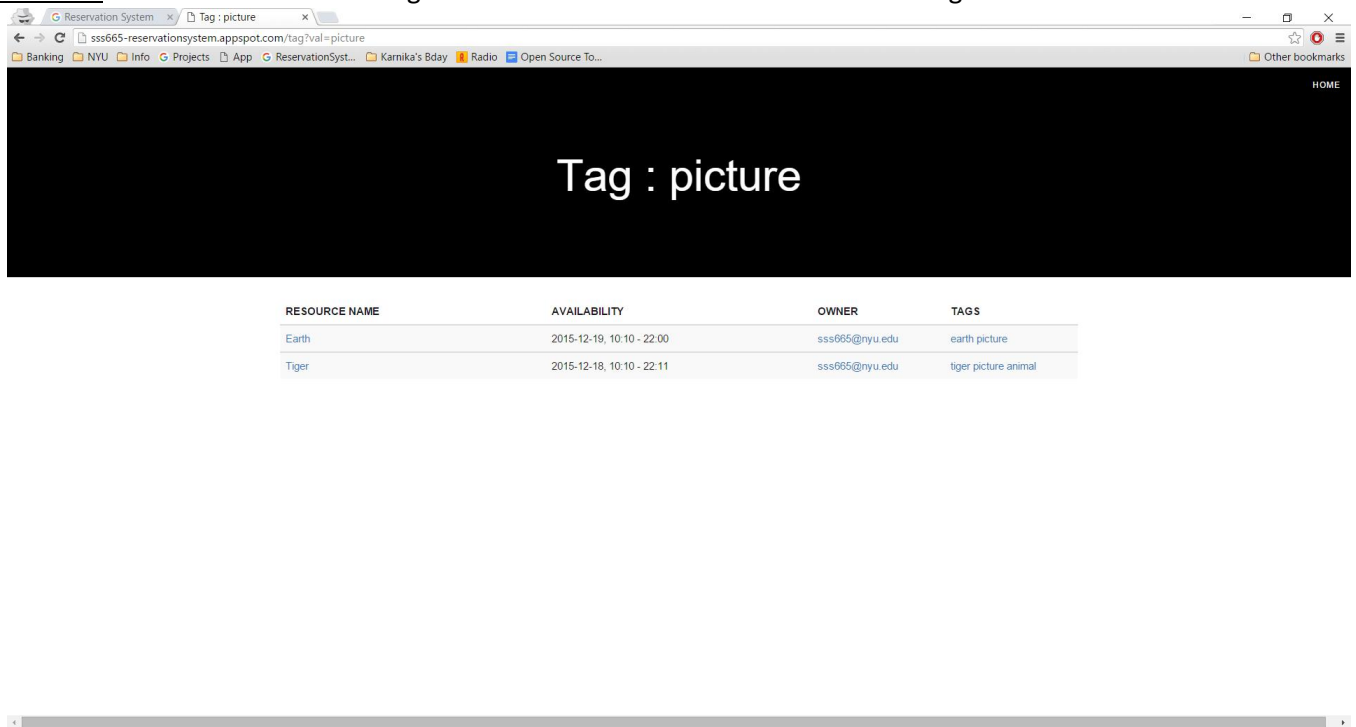
**USER'S RESERVATIONS**

RESOURCE NAME	START TIME	DURATION (IN MINUTES)
Resource1	2015-12-18, 14:00	60
Earth	2015-12-19, 10:10	1

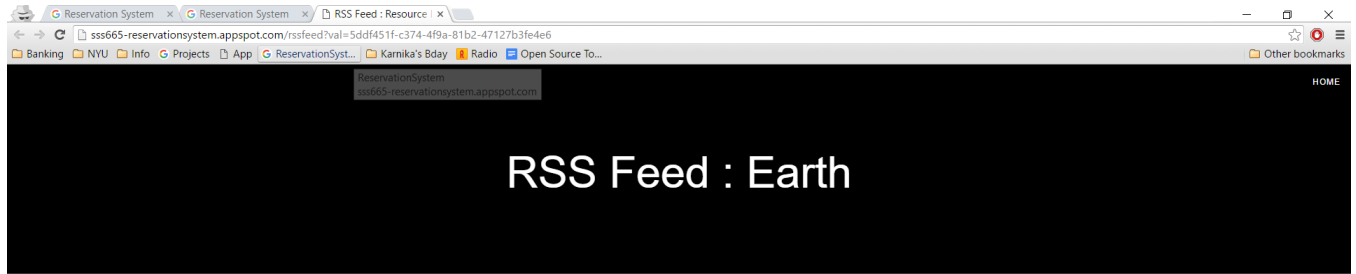
**USER'S RESOURCES**

RESOURCE NAME	AVAILABILITY	CAPACITY	TAGS
R2 	2015-12-18, 13:00 - 17:00	2	tag1 tag2
Resource1 	2015-12-18, 11:00 - 23:00	5	

10. TAGS PAGE: The user can click on a tag and find all resources that have the same tag.



11. RSS FEED: The user can click on the RSS icon next to the resource name on the landing page.



```
<?xml version="1.0" encoding="UTF-8" ?>
<rss version="2.0">
  <channel>
    <title>Earth</title>
    <link>http://sss665-reservationsystem.appspot.com/resource?val=5ddf451f-c374-4f9a-81b2-47127b3fe4e6</link>
    <description>Earth is available on 2015-12-19 from 10:10 to 22:00
      <link to resource image : http://sss665-reservationsystem.appspot.com/img?imgId=bbf08142-3a96-487e-8c51-6b09f73526e8
    </description>
    <item>
      <title>Reservation made by sss665@nyu.edu</title>
      <link>http://sss665-reservationsystem.appspot.com/resource?val=5ddf451f-c374-4f9a-81b2-47127b3fe4e6</link>
      <description>Reserved from 10:10 for 1 minute/s on 2015-12-19</description>
    </item>
  </channel>
</rss>
```

- a. <title> : The name of the resource.
- b. <link> : The link to the resource page.
- c. <description>: The availability of the resource and the link to the resource image if available.
- d. <item> : The reservations associated with the project.
  - i. <title> : Name of the reservoir
  - ii. <link> : Link to the reserved resource
  - iii. <description>: Reservation details

12. **IMAGE PAGE:** Clicking on the image thumbnail next to the resource name of an image resource will take the user to a larger version of the same image. This may not necessarily be of the original size.

