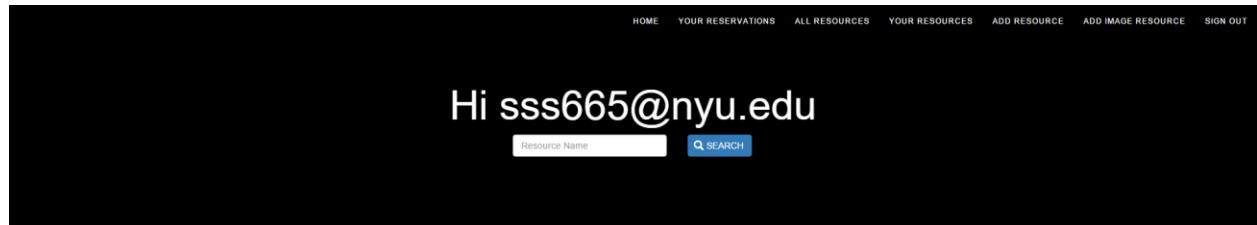


1. When the user accesses the application, he is required to sign in using a google account. After this the user can create resources and reserve them.





2. LANDING PAGE:







YOUR RESERVATIONS

RESOURCE NAME	START TIME	DURATION (IN MINUTES)	DELETE
Earth	2015-12-19, 10:10	1	Delete

ALL 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	
Earth 	2015-12-19, 10:10 - 22:00	1	earth picture
Tiger 	2015-12-18, 10:10 - 22:11	1	tiger picture animal

YOUR 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	
Earth 	2015-12-19, 10:10 - 22:00	1	earth picture
Tiger 	2015-12-18, 10:10 - 22:11	1	tiger picture animal

- The application landing page has the following sections:
 - YOUR RESERVATIONS :
 - These are the reservations made by the current user.
 - The results are sorted by the reservations start time.
 - 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.
 - The user has the option of deleting the reservations he created.
 - ALL RESOURCES:
 - These are all resources that exist in the system.
 - They are ordered by the lastReservedTime.
 - YOUR RESOURCES:
 - These are all resources owned by the current user.
 - They are ordered by the lastReservedTime.

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

The screenshot shows a web browser window with the title 'Add Resource'. The browser's address bar displays 'sss665-reservationsystem.appspot.com/add'. The page has a dark header with the text 'Add Resource' in white. Below the header, there is a form with the following fields:

- NAME OF THE RESOURCE:** A text input field with the placeholder 'Enter the name of the resource:'.
- AVAILABLE DATE:** A text input field with the placeholder 'mm/dd/yyyy'.
- AVAILABILITY START:** A text input field with the placeholder 'mm/dd/yyyy'.
- AVAILABILITY END:** A text input field with the placeholder 'mm/dd/yyyy'.
- CAPACITY:** A text input field with the placeholder '1'.
- TAGS:** A text input field with the placeholder 'restaurant, room'.

Below the form fields is a blue button labeled 'ADD'.

a. **FIELDS:**

- NAME OF THE RESOURCE:** The desired name of the resource.
- 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.
- AVAILABILITY START:** The start time from when the resource is available.
- AVAILABILITY END:** The end time of the resource availability.
- CAPACITY:** The number of overlapping reservations allowed (cannot be less than 1).
- TAGS:** The user can add 0 or more comma (,) separated tags.
- ADD button:** This button will be enabled only if all the information in the form is valid.

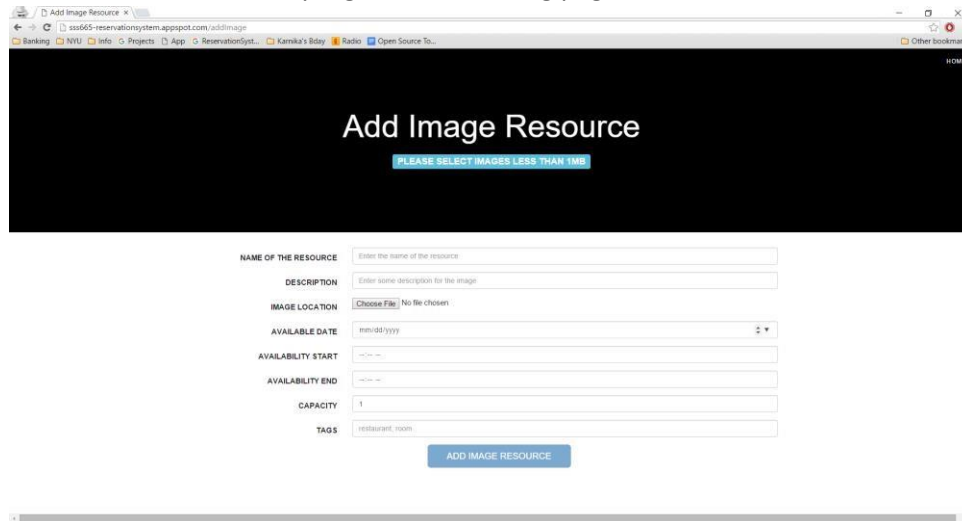
b. **VALIDATIONS:**

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

c. **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.

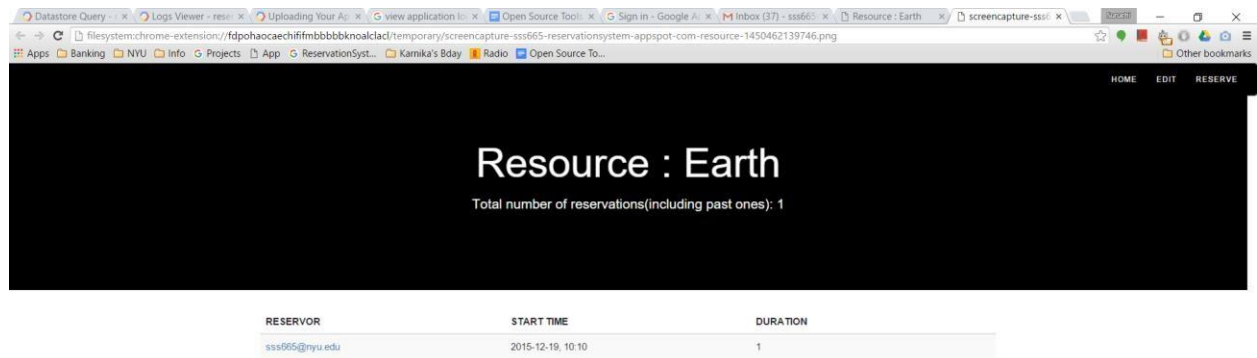


The screenshot shows a web browser window with the title 'Add Image Resource'. The page has a dark background with the title 'Add Image Resource' in white. Below the title is a blue button that says 'PLEASE SELECT IMAGES LESS THAN 1MB'. The form below has the following fields:

- NAME OF THE RESOURCE: Text input field with placeholder 'Enter the name of the resource'.
- DESCRIPTION: Text input field with placeholder 'Enter some description for the image'.
- IMAGE LOCATION: File upload button labeled 'Choose File' and text 'No file chosen'.
- AVAILABLE DATE: Date picker set to 'mm-dd-yyyy'.
- AVAILABILITY START: Text input field with placeholder 'mm-dd-yyyy'.
- AVAILABILITY END: Text input field with placeholder 'mm-dd-yyyy'.
- CAPACITY: Text input field with value '1'.
- TAGS: Text input field with value 'restaurant, room'.

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

- a. FIELDS:
 - i. DESCRIPTION: Description of the image that is uploaded.
 - ii. IMAGE LOCATION: Specify the location of the image to be uploaded.
 - iii. Other fields are the same as the Add Resource Page
 - b. LIMITATIONS:
 - i. 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. There might be some workaround for this but I haven't looked into it yet.
 - c. VALIDATIONS:
 - i. In addition to the validations of the Add Resource page, the description and file fields cannot be empty.
 - d. RESULT:
 - i. Once the resource is successfully added, it is displayed on the landing page under the All Resources and My Resources sections.
 - ii. A thumbnail of the uploaded image is displayed on next to the name of the resource in these two sections.
5. RESOURCE PAGE: The user can go to the resource page by clicking on the resource name link.



The screenshot shows a web browser window with multiple tabs. The active tab is titled 'Resource : Earth'. The page has a dark background with the title 'Resource : Earth' in white. Below the title, it says 'Total number of reservations(including past ones): 1'. At the bottom, there is a table with three columns: 'RESERVOR', 'START TIME', and 'DURATION'. The table contains one row with the following data: 'sss665@nyu.edu', '2015-12-19 10:10', and '1'. The browser's address bar shows a long URL, and the top of the browser window displays various tabs and bookmarks.

RESERVOR	START TIME	DURATION
sss665@nyu.edu	2015-12-19 10:10	1

a. FIELDS

- i. EDIT: The Edit link will be visible only to the owner of the resource.
- ii. RESERVE: The Reserve link is visible to everyone
- iii. HOME : Link to take the user back to the home page
- iv. The total number of reservations, include the current and past(undeleted) reservations.
- v. 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 user can edit a resource by clicking on the EDIT link on the resource page. All existing information about the resource is loaded in the appropriate fields.

HOME

Edit Resource

IF RESOURCE IS EDITED, ALL RESERVATIONS FOR THE RESOURCE WILL BE LOST

NAME OF THE RESOURCE: Resource1

AVAILABLE DATE: 12/18/2015

AVAILABILITY START: 11:00 AM

AVAILABILITY END: 11:00 PM

CAPACITY: 5

TAGS: restaurant, room

EDIT

HOME

Edit Resource

IF RESOURCE IS EDITED, ALL RESERVATIONS FOR THE RESOURCE WILL BE LOST

PLEASE SELECT IMAGES LESS THAN 1MB

NAME OF THE RESOURCE: Earth

DESCRIPTION: Earth

IMAGE LOCATION: Choose File | No file chosen

AVAILABLE DATE: 12/19/2015

AVAILABILITY START: 10:10 AM

AVAILABILITY END: 10:00 PM

CAPACITY: 1

TAGS: earth, picture

EDIT

- a. **LIMITATIONS:** I am sure that the following limitations could be avoided, but due to lack of time I did not look into it.
- If the user edits a resource, all the reservations for that resource are lost.
 - 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.

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

b. VALIDATIONS:

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

c. RESULT:

- i. The resource gets updated in the datastore.
- ii. If the editing is successful, the user is redirected to the home page.

7. RESERVE RESOURCE: The user can reserve a resource by clicking on the RESERVE link on the resource page.

Reserve Resource1

AVAILABLE DATE: 2015-12-18

START TIME: 11:00 AM

DURATION(IN MINUTES): 1

RESERVE

a. FIELDS:

- i. 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.
- ii. START TIME: The default value of this field is the resource availability time.
- iii. DURATION: The duration of the reservation in minutes.

b. VALIDATIONS:

- i. The duration cannot be less than 1 minute.
- ii. 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.
- iii. 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.

- iv. The reservation will not be accepted if the end time of the reservation has passed.
 - c. RESULT:
 - i. 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.
 - ii. The user who reserved the resource will receive an email from sss665@nyu.edu stating that the resource is reserved.
 - iii. The user will also receive a mail when the reservation time for that resource has begun.
8. SEARCH BY NAME: The user can search for resources by their name using the search field on the landing page.
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-reservationssystem.appspot.com/ownerinfo?val=sss665@nyu.edu`. The page title is "Details of sss665@nyu.edu". The page content is divided into two sections:

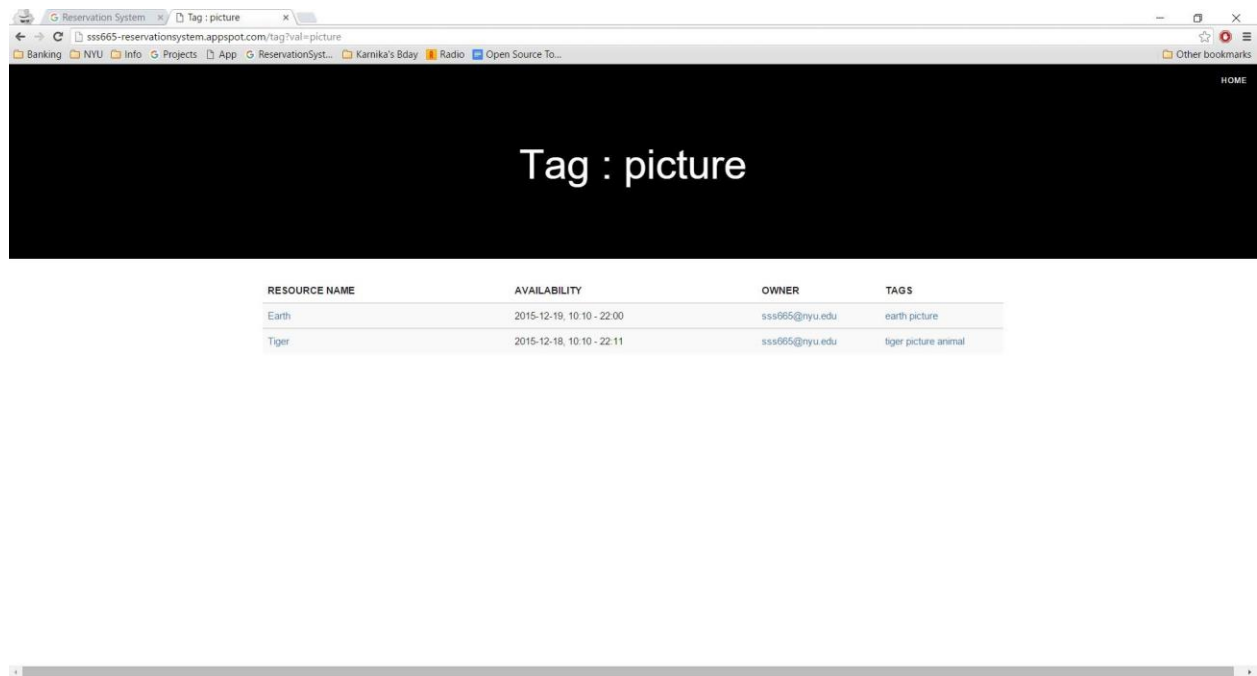
USER'S RESERVATIONS

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

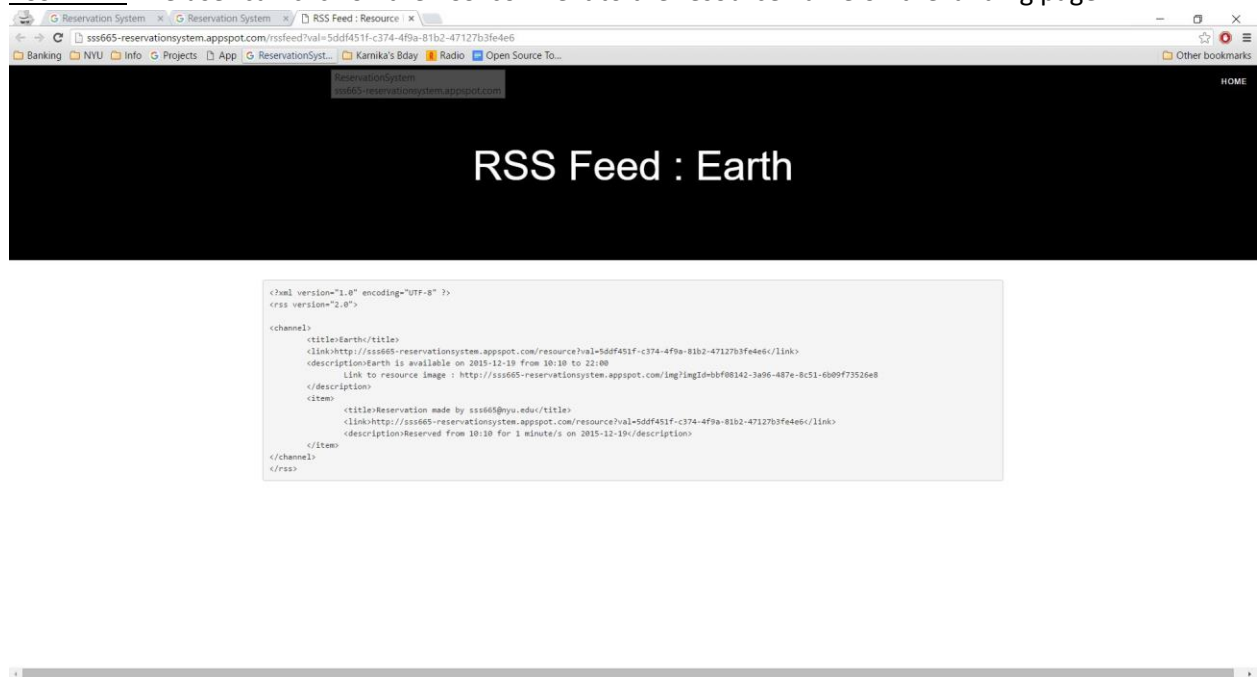
USER'S RESOURCES

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



a. FIELDS:

- i. <title> : The name of the resource.
- ii. <link> : The link to the resource page.
- iii. <description>: The availability of the resource and the link to the resource image if available.
- iv. <item> : The reservations associated with the project.

- a. <title> : Name of the reservoir
- b. <link> : Link to the reserved resource
- c. <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.

