Some Details about the project

Link to the deployed app: https://share-resource.appspot.com/

The basic architecture of this application consists of a main python script, several html files, few javascript files and configuration files.

The main python script "resourceShare.py" controls the functioning of the whole application. It consists of 2 models namely "Resource" and "Reservation". These are used to create and store different instances of reservations and resources.

Main attributes of **Resource** model are:

1. resource_Name: It hold the name of the resource entered by the user.
2. resource_Owner: Creator of the resource. Used to verify permissions for resource
3. resource_StartTime: Starting time of the availability of resource
4. resource_EndTime: Ending time of the availability of resource
5. resource_tag: Contains the tags entered by the user.(optional)
6. Date: Used to maintain the time of creation of resource and the time it was last reserved.
7. primaryKey: Used to distinguish every resource.
8. resource_Duration: Used to keep record of duration of availability
9. totalReservations: Used to keep track of number of reservations per resource
10. justCreated: Used for distinguishing between resources that have not been reserved yet

Main attributes of **Reservation** model are:

1. resource_Name: It holds the name of the resource associated with a reservation.
2. resource_PrimaryKey: It holds primary key of the resource associated with a reservation.
3. reservation_Owner: Creator of the reservation. Used to distinguish between which reservations belong to the user.
4. reservation_StartTime: stores the start time of the reservation
5. reservation_Duration: stores the duration of reservation entered by the user
6. reservation_EndTime: Used to store the calculated end time
7. reservation_Notes: Some side notes per reservation(optional)
8. primaryKey: Stores the unique key for each reservation.

Main Page:

This page has 4 sections.

- The first section shows all the user's reservations sorted by upcoming time of reservation
- Second section shows users resources sorted by last reserved time
- Third section shows all the resources sorted by last reserved time
- Fourth section shows the search section. This is extra credit. It shows two links clicking on them expands them. One can be used to search resources by name other can be used to search resources by availability

Resource Page

- Each resource is linked to its detailed page which also shows all the upcoming reservations of that resource.
- If you are the resource creator it also has the link to edit the resource
- It has the link to reserve the resource

Reservation Page:

- Each reservation is linked to its page which shows the details about the reservation
- If you are the creator of the reservation it also shows a link to delete the reservation

User Page:

- Each user also has its own page which is the main page only but it shows only user's content

Tag page:

- Each tag has its page which shows all the resources sharing the same tags

RSS page:

- Wherever the resource table appears so does the link for creating the rss feed for that resource. It will dump all the reservations for that resource in XML format

Other cool features of app:

- Smooth scrolling has been added to the main page
- Nav bar is added in the app which shadows when the sections are visited
- All the sections are interactive. Clicking on them expands or collapses them
- It keeps the track of last reserved resource even if the reservation is deleted

You can find out about each class and method by the documentation inside the python script. Every variable name and method names used are helpful in code understanding. Here are some of the details about the project.

- Logging in with google account is mandatory
- The link to create a new resource is in the "all resources" section.
- If a resource has not been reserved yet it specifies the same.
- You can expand or collapse each division giving the app the flexibility of view. E.g.- if you click on "all resources" heading it will close.
- A reservation can be deleted by going into the details of the reservation
- Resource can be modified by going into the detail(link) of the resource
- Github has been used to develop the app using regular code commits.

Github repository is included within the applications directory with the name of .git. I have created two experiment branches. Feature chosen to turn off is RSS link. Experiment branch was created when I was

before I was adding the RSS functionality. As a result, this branch might not have all the features (such as extra credit). “Experiment1” branch was created in the end removing all the RSS functionality after all the coding was finished. So, this branch has all the functionality except RSS. All the basic features are there in the “basic” branch. Master branch includes everything.

Extra Credit

- Kept the count of all the reservations per resource
- Search resource using the resource name
- Search resources with availability within given time
- Send mail on reservation

Assumptions:

- Each resource can have multiple reservations even for the same user
- User can create reservation for a time that has passed. Even though it will not be viewable on that day it will be used the next day.

Google guestbook tutorial and bootstrap tutorial were helpful in giving ideas and learning things for this project.

Please email me if you find any difficulty in running.