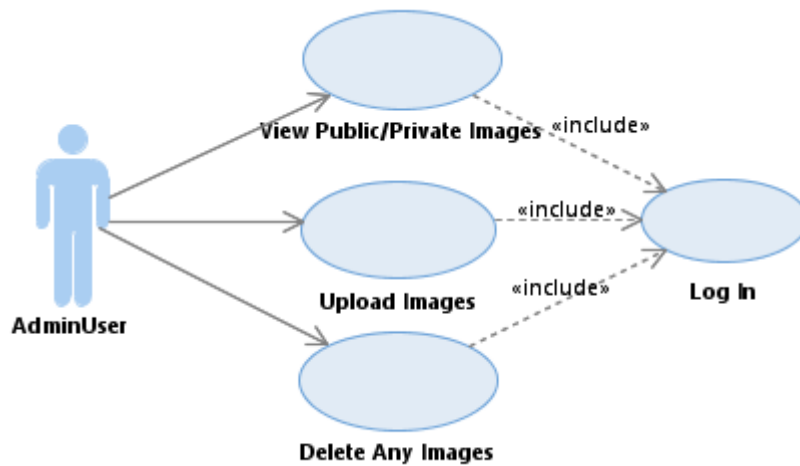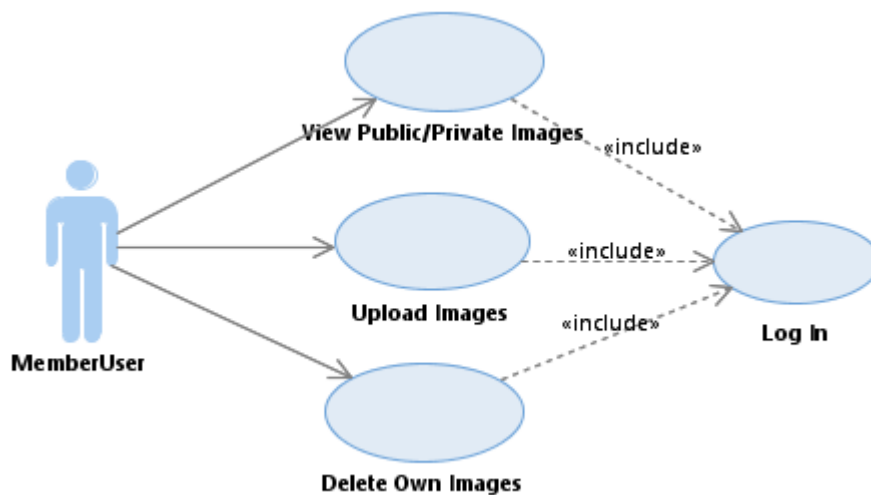# PHOTOBOX DESIGN DOCUMENT

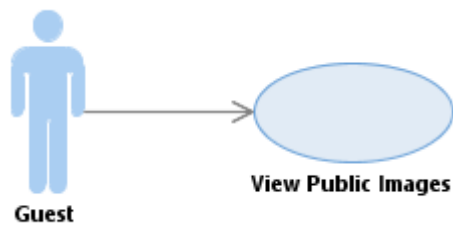## Use Cases

Admin Use Case Diagram:

Admin can view images, upload images, and delete images, all of which require them to log in.

User Use Case Diagram:

User can view images, upload images and delete their own images, all of which require them to log in.

Guest Use Case Diagram:

Code

Classes

There are 4 main classes in the web app design, these are:

- LoginMain: This deals with the user logging in, and also displays the pictures they have access to to.
- Upload: This handles the uploading of the pictures using the blobstore service and datastoreservice.
- Serve: Serve deals with taking the data from the blobs the user has access to, and returning it as viewable pictures.
- Delete: This deals with deleting the pictures that the user has access to and wishes to remove.
- Index.jsp: This will be used instead of a .html, so as to allow the picture list to be displayed, and so that the forms and buttons work accordingly and in conjunction with the java servlet code.

APIs

https://cloud.google.com/appengine/docs/java/javadoc/index?com/google/appengine/api/datastore/package-summary.html

The API's I will need for this design include the following:

- Blobstore: This will be required for uploading the pictures as blobs of bytes.
- Datastore: This will be required for storing the blobs that contain the picture data.
- Users: this will be needed to allow different users to have their own section of storage for their pictures.

I am unsure at this stage whether any other API's will be required, however I may have to use the Images API to display images. If not the img src can be used in the html embedded in the index.jsp

Issues Faced

Throughout the project I found myself in difficult achieving the 3 use cases I designed initially so adjustments were made.

With regards the uploaded live applet, the delete button does not work accordingly and returns this error: java.lang.IllegalArgumentException: The kind "__BlobInfo__" is reserved.

http://www.coderexception.com/Cu1HBH6HPUWQyQyi/cant-delete-blob-data-gaejavadatastore

I have found multiple occurrences of this error online, none of which offered a viable solution. It seems to be an error with the blobstore api and googles appspot permissions.

There are other certain things that do not function on the live version of the app, such as the logout option being available when logged in. This has to do with the index.jsp overwriting the resp.getWriters, and I could not find a way to stop this from happening.

These errors does not however occur offline, as the applet functions accordingly. I therefore recommend that this app be tested offline locally.