ImageShare Developer Guide

<u>Overview:</u>

ImageShare is a Google App Engine application built using Java that allows users to view and upload images, either public or private. It consists of JavaServer Pages (jsp) and Java Servlets and classes. Users can login with a Google Account. When logged in, users can upload their own images, view private images and delete their own images.

<u>browse.jsp:</u>

This jsp is the page that the end user sees when they enter the site. From there they will see the title bar at the top which has a fixed position at the top of the screen. In this title bar to the left, there is a HTML form with a file input that uploads the file as a blob to the Blob Store and then sends a callback to the <u>UpLoad.java</u> servlet. On the other side of the title bar there is a link to login. This links href is a UserService.createLoginURL method which brings the user to a Google Account login page.
Underneath the title bar is the main body of the page where images can be viewed. Images appear vertically,one after the other with information about the image underneath such as the user who uploaded it, the date of upload, wheter the image is private or public and a delete button for that image if they have the privelige to do so.
The images are put on the screen dynamically. The Persistance Manager queries the DataStore for all its ImageStore.class data and puts it into a List object, which is iterated through in a for loop that has a HTML image tag in it.

<u>UpLoad.java:</u>

This servlet is sent a callback when the user uploads an image to the blobstore. It retrieves the blob key of that blob and puts it into a string. It also retireves from the form the value of the privacy check box. That string, the current date, a boolean for image privacy and the current username are uploaded into an instance of the <u>ImageStore.java</u> class which is loaded into a Datastore using the PersistanceManager, which is part of the JDO (Java Data Objects). After this process it redirects the user back to the <u>browse.jsp</u>.

<u>Serve.java:</u>

The purpose of this servlet is to take in a blob key and serve up that blob to the user. It is mainly used as the src of an image tag e.g.

`<img src="/serve?blob-key=NJW4UIWB448H3G3GG3UB "/>`

Delete.java:

This servlets purpose is to take in a blob key as a URL parameter to delete the corresponding blob from the BlobStore and delete the corresponding entry from the DataStore.

ImageStore.java:

This is the java class that is made persistant in the DataStore. It's fields are user, date and blob key. Browse.jsp iterates through a List of these objects to print images to the page.

PMF.java:

This class's purpose is to create an instance of a Persistance Manager and return it.