

# Design Document

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### Cloud Computing CA2

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# App Features

## Users

- Administrators
  - Have to log in to use Picture Box
  - Admins can view all files on Picture Box
  - Admins can delete all files on Picture Box
  - Can upload files to Picture Box and make them either public or private, which makes them available to either only admins and members, or to everyone
- Members
  - Have to log in to use Picture Box
  - Can view all files on Picture Box
  - Can delete any uploads they have
  - Can upload files to Picture Box and make them either private, which are only available to Members and admins, or public which are available to anyone
- Guests
  - Don't have to log in to use it
  - Can view pictures marked public only
  - Can't upload or delete any pictures

## Features & Code

- Upload
  - The upload.jsp and UploadServlet handle uploads
  - The jsp page uploadsthe file to blobstore and passes its public or private value to the servlet
  - The servlet creates an Entity with metadata and the Blobstore key for the image which is put into a Datastore so it can be queried later and used to retrieve from files the BlobStore
- Delete
  - The delete servlet is called from the Download page and needs the BlobKey to be passed to delete the file
  - The BlobKey is used to generate a Key to delete that entry from the datastore
  - The BlobKey is then used to delete the file from the BlobStore
- Login
  - The login servlet generates the login and logout URL's using the UserService methods
  - It gives the user the option to continue to this URL or go back
- Download
  - The download servlet is the page that displays pictures for admins and members
  - It shows the list of all pictures names stored and the option to delete depending on whether that user can or not ie. If they are an admin they can delete anything, but a member can only delete their own

- It shows who uploaded all the files and gives a link to view and delete each
  - If delete or view are clicked it redirects to the delete or serve servlets and passes the BlobKey with the request
- Serve
  - This servlet is the file from the labs
  - It takes the BlobKey passed as a parameter when view is clicked and serves the file from the BlobStore using that key
- View
  - The view servlet behaves the same as the download one except it doesn't give the options to upload or delete as guests can't do either of these
- Instructions
  - I have also created a short User Guide to using the website which is linked as a help file from the homepage