File Hosting Site - Use Cases

- Se listor över senast uppladdade publika filer utan att vara inloggad.
- Se listor över mest nedladdade publika filer utan att vara inloggad.
- Klicka på en fil i någon utav listorna som ej inloggad.
    - Filinformation visas.
    - Eventuella kommentarer på filen visas.
- Ladda ner filen.
- Få en direkt nedladdningslänk.
- Registrera konto.
    - Användarnamn måste vara unikt.
    - Javascript ser till att alla fält är ifyllda, att det är en riktig emailaddress samt att lösenordsfälten har samma innehåll.
- Logga in (om användarnamn eller lösenord är fel visas motsvarande felutskrift).
- Visar Användarsida (klicka på sitt användarnamn i menyn).
    - De filer man laddat upp visas här.
- Ladda upp en privat fil.
- Ladda upp en publik fil.
- Klicka på uppladdad fil (som ägare).
- Se filinformation.
- Ladda ner filen.
- Få en nedladdningslänk(om filen är publik).
- Se tidigare kommentarer.
- Skriv en kommentar.
- Radera filen.
- Navigera till “home”.
- Klicka på en fil i någon av listorna som du inte laddat upp.
    - Du har inte behörighet att ta bort den filen.
- Navigera till en befintlig grupp via menyn.
- Lägg till nya medlemmar till den gruppen.
- Visar medlemmar i gruppen.
- Visar filer som tillhör gruppen.
- Ladda upp fil till gruppen.
- Skapa en ny grupp.
- Ändra settings för din användare.
- Logga ut.
- Sök på filer.
- Logga in som administratör.
    - Användar-behörighet plus ytterligare admin-behörighet.
    - Länk till administrerings-sida i menyn när man är inloggad som admin.
- Gå in på administratörsidan.
    - Samtliga uppladdade filer visas.
- Ta bort en uppladdad fil.

Grupp 14

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General overview

The application allows people to save files in the cloud and share them. You can create groups with other members and share files with them. The system should be used for legal file-sharing. An example of when the application can be helpful is when working in groups with other people.

You can visit the site as logged in, not logged in visitor or as admin. As not logged in, you can read information and comments about public files as well as download them. As logged in, you can do the same as a not logged in user and also upload files on your own. See your own private files and put comments on files you have permission to see. You can also see groups you're in and the other members in the groups, as well as accessing files uploaded to the group. An admin can do the same things as a logged in user, but may also go to an administration-view to see all files in the database and delete any of them.

Technical design of the system

We have designed the application with a three-tier architecture in mind (see figure 1). The data tier contains a Java Derby database which stores all persistent data like users, groups, comments and uploaded files. Next comes the logic tier, where all user actions are processed. If the user for instance wants to retrieve a previously stored file, the logic tier handles this requests by sending a query for the file to the database and then returning it to the user. The presentation tier contains the application's graphical user interface. This is the only tier the user can interact with directly. Here all data delivered by the logic tier is displayed graphically so that it can be understood by the user.

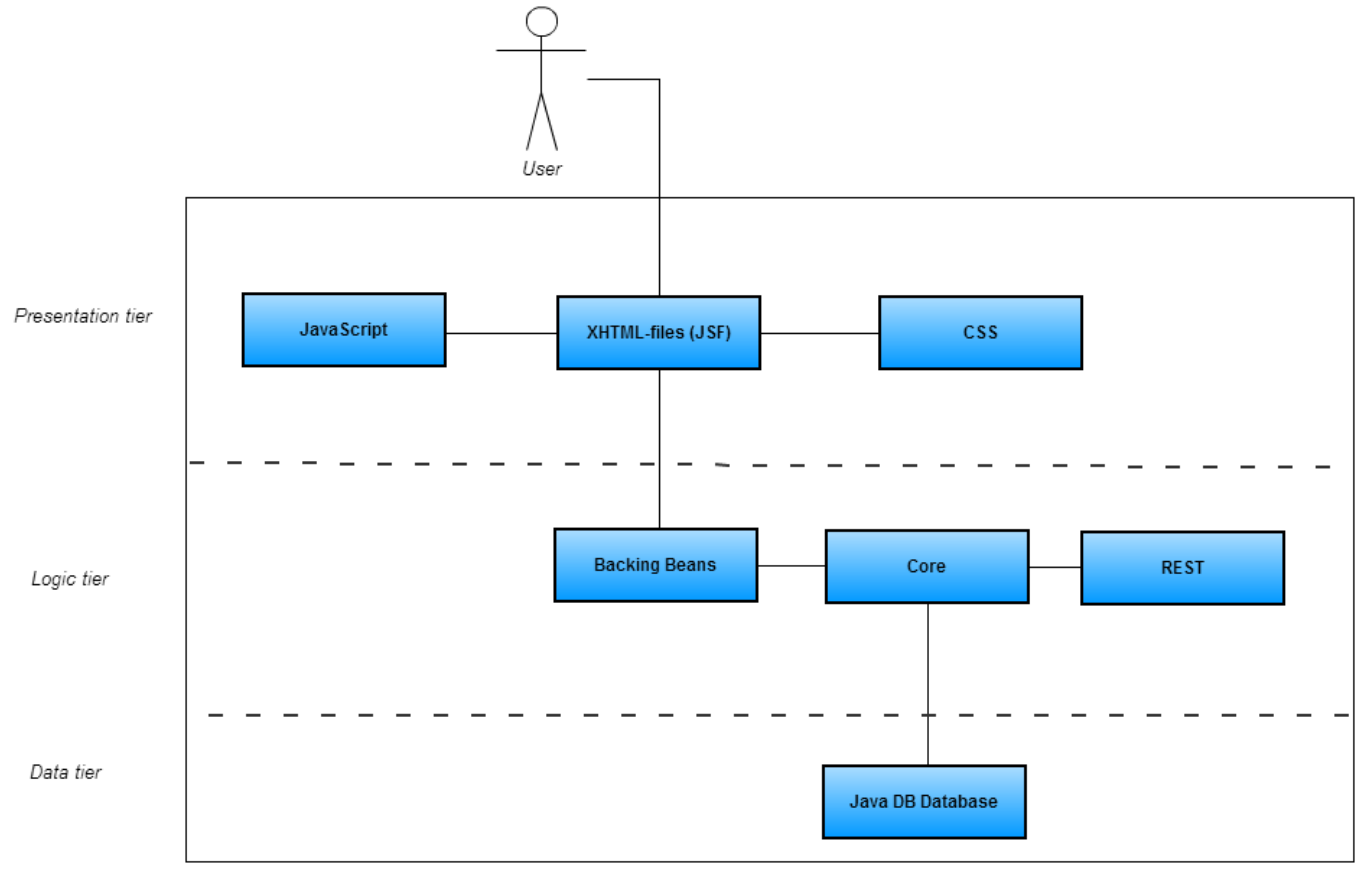

Figure 1. Tier structure diagram.

The basic structure of the web application consists of XHTML-files that displays different pages using JavaServer Faces (JSF). The XHTML-files also uses CSS for layout and JavaScript for user authentication and some of the more advanced layout. The basic layout for all these pages is defined in a single XHTML-template. Most of the XHTML-files communicates with a backing bean in the logic tier. To communicate with the database, the backing beans in turn goes through the database handling classes in the core package. The REST package also uses the core package to access the database.

The core package contains two sub-packages; db and entities. Db consists of all classes that can communicate directly with the database and entities consists of all the data classes that can be stored in the database.

The only library we use that we didn't use during the workshops is "tomahawk". This is used to upload files to the database.

Strong parts:
- We save all data to the database, everything from comments to users and files.
- We don't save passwords in plaintext (salted SHA-512 hashes are stored)
- Files that require login cannot be accessed in any way unless you are logged in.

Weak parts:
- Could still use some more work, some bugs solved with workarounds etc.
- Still some unsolved bugs.