

Interactive File Sharing Web Application for Organization

Bramha Gogade¹, Shraddha Dharmik², Saili Patil³, Prof. A. N. Adapanawar⁴

Savitribai Phule Pune University, Department of Information Technology,
Sinhgad Academy of Engineering, Kondhwa, Pune, India

¹gogade.bramha@gmail.com

²shraddha.dharmik@gmail.com

³sailipatilg@gmail.com

⁴anadapanwar.sae@sinhgad.edu

Abstract – As demand for sharing and accessing files online is increasing, people are likely to shift their focus from traditional file sharing systems to online file sharing system so that files could be accessed any time and any place. Variety of file sharing applications is available to ease sharing files online. In this paper, we are presenting a file sharing system which is devoted to sharing and accessing files in an organization. Requirements of sharing files for an organization are a bit different from general file sharing applications that are available. This web application will be an interactive application for organization wherein ideas can also be shared along with file sharing and users will be provided with different privileges to share file which is currently not present in available file sharing applications.

Keywords – file sharing, web application.

1. Introduction

Along with the development of new technologies, the world is going digital. Because of this, the user stores large volume of information on computer in the form of text document, images, and videos. Storing data on server and then accessing it becomes a time-consuming task where document storage is huge. Sharing files among the users is tedious. In this project we are using concept of interactive file sharing for storing files, then sharing them as per need and create groups among themselves. This project helps to retrieve and share document in grouped format and display only related information to user queried for searched. The discussion forum helps the users to interact with each other.

2. Literature Review

2.1. File Sharing

File sharing is the process of sharing or providing access to digital media such as images, audio, video, documents, e-books etc. It can be done in several ways. Some of the method in which file sharing, storage or distribution can be done is:

- Removable Storage devices
- Centralized file hosting server installed on networks
- www-oriented hyperlinked documents
- Peer-to-peer networks[4]

2.2. Existing File Sharing Services

Existing File Sharing services are cloud-based services, which allows users to save their data on their computers and then sync it online so that the data could be accessed from anywhere[3]. Some of the services that provide these facilities are Dropbox and Google.

Dropbox Server and client code was first written in Python. It uses CoffeScript in browser side codebase. Its desktop client uses Python GUI toolkits as Cocoa[6].

2.2.1 Technologies Used

Web development languages are HTML(HyperText Markup Language) and CSS(Cascading Style Sheets). This give a basic structure to a website[7]. It is used to add hyperlinks so that two pages can be linked and other designing elements to make the website look better.

Popular language used for Client side scripting is JavaScript. Its implementation allows client-side scripts to efficiently interact with user, to show dialogue boxes and to allow document content to be altered [8].It is basically used to control the behaviour of web pages.

Server Side Scripting languages used are PHP, Java, Python, Ruby and many more. This language is used on server site to fetch the data requested by user and to display the same on web browser.

2.3. Requirement Analysis

Requirement Analysis is the process of collecting requirements from customers, analysis the requirements and working to achieve those requirements in order to satisfy customers.

2.3.1. Functional Requirements

Following are the functional requirements that were collected from users :

- i. Providing security to shared files
- ii. Various access rights to shared files(e.g. Read, Write)
- iii. Public and private directories for sharing file
Interactive User interface for file sharing

2.3.2. Non-Functional Requirements

Non – Functional requirements for the project are as follows :

- i. Language : Hypertext Markup Language(HTML), Cascading Style Sheets(CSS), JavaScript
- ii. IDE : Netbeans IDE 7.3.1
- iii. Database : MySQL
- iv. Operating System : Windows 7, Windows 8

2.4. Feasibility Study

Feasibility Study is done in order to study the system well. It helps us to decide whether to proceed with the software or not.

Operational Feasibility will determine whether the software product is usable to the extent it is to be used. The product should be highly usable and interactive. Economically it is feasible to build the software. This is required to calculate the cost of the project. Estimated time required to complete the project is 6-7 months.

2.5. Advantages

- a) This is limited to an organization so the web application is designed in a way it takes care of basic requirements of the users of that organization. Users for different organization have different requirements.
- b) Types of files that will be shared are limited to specific extensions. For example, in an organization like college, students mostly need file types like ppt, excel sheets, word documents etc.
- c) Members at higher level can decide what access rights to be given to lower level members and what files to allowed for sharing.
- d) Interface is designed in a way that it will cover the requirements of most of the organizations that want to use file sharing.

3. Project Planning

Project Planning is the set of activities that are required before a project can actually begin. It is done to estimate the work to be done and the time that will be needed to complete the required task.

3.1. Problem Definition

In organization we use server to save our files but the server is not at all secured as anyone can copy our files, manipulate them causing great loss to us. We can access the files from the organization only not from anywhere. One method is developing a website which can be used for File sharing by organization staff and student. This website will be useful as student and staff, both can access files from anywhere. Additional features will be provided , like announcement sections ,public and private directory, special privilege, secure file sharing, restrict visibility, groups creation, final analytics. This will increase the security of our files and can be managed properly. There will be more interaction between the users.

3.2. Scope Statement

This project aims to design an application that is necessary for organization members when they need to operate online and access files . Project scope from user perspective, limits the range of users to only those who have internet connection and have an account in hand. The system can be adapted to a range of files from small to large. Project scope includes facilities for users to upload files online and can download files ,who don't have account can view the notifications. The aim of this project is to promote an user-friendly, efficient, safe way for users to upload and download files without being physically present at organization .

3.3. System Architecture

In this project, we are using a client-server architecture for sharing files.

In the system given below, client requests a file(audio, text) from the server. The server then checks from the database whether the file is present or not, if the file is found then it is transferred from server to the client who requested the file. Clients can also upload documents on the server.

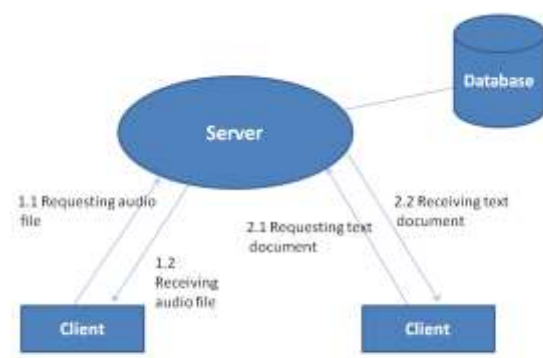


Figure 1 : System Architecture

4. Applications

- (a) Easy File Sharing : File Sharing becomes easy with interactive user interface and is highly demanded in any institute.
- (b) Educational : In institutes, various access rights can be provided on files while sharing it to users, it will avoid losing of data or destroying the original content.
- (c) Government : Government can use file sharing to share the important information on websites with limited rights.
- (d) Employment websites: Employment websites need a huge amount of files in an organized manner, for e.g. resumes, marksheets etc.
- (e) eLibrary : eLibrary consists of many ebooks and they need to be organized according to their categories.
- (f) IT Industry : In industries, many files have to be shared with limited access to limited users.

- [5] "Google Drive – Wikipedia", November 2014 [Online]. Available: http://en.wikipedia.org/wiki/Google_Drive. [Accessed: Feb. 21, 2015].
- [6] "Dropbox(service)", Available : http://en.wikipedia.org/wiki/Dropbox_%28service%29 [Accessed : Feb. 21, 2015].
- [7] Yoshitaka Shiotsu "Web Development 101 : Top Web Development Languages in 2014" Available : <https://www.odesk.com/blog/2014/03/web-development-101-top-web-development-languages-2014/> [Accessed : Feb.21,2015].
- [8] "JavaScript" Available : <http://en.wikipedia.org/wiki/JavaScript>. [Accessed : Feb.22, 2015]

5. Conclusion

This article puts forward an idea of a file sharing web application using Java which is implemented for limited users. This client/server application will provide an interactive way to share files with many advantages.

Organization users are able to share files, organize their files effectively. Private and Public files will be well organized. Along with file sharing, we are implementing discussion forum which will encourage sharing of ideas.

Various privileges are provided to users while sharing files, for e.g. read only, write only etc. Using these privileges, files are shared, accessed and edited accordingly.

Hence we have designed an application which is user friendly, interactive and efficient to share files in an organization.

References

- [1] Chin-Chif, Wen-Xiang Wu. "Distributed File Sharing Using Web Services", IEEE, ISBN : 978-1-4799-3724 – 0/14/
- [2] Arjun Singh, Ajay Kr. Sharma, Ashish Kumar. "Multiclient MultiInstance Centralized File Server using TCP protocol in java sockets", IJCA, Volume 23- No.8, June 2011.
- [3] File Sharing –Wikipedia , the free encyclopedia[Online]. Available : http://en.wikipedia.org/wiki/File_sharing. [Accessed : Feb. 15, 2015]
- [4] What is File Sharing ? Cory Janssen[Online]. Available : <http://www.techopedia.com/definition/16256/file-sharing>. [Accessed : Feb. 15,2015]

Author Profile

First Author



Bramha Gogade completed his SSC from Shivaji Vidyalaya, Jalana. After completing his SSC, he completed his Diploma in Computer Engineering from Government Polytechnic, Jalana . Currently he is pursuing B.E. in Information Technology from SAOE, Kondhwa, Pune.

Second Author



Shradha Dharmik completed her 10th grade from Bhavan's Prominent School, Indore, M.P. and 12th grade from St. Mira's College for Girls, Pune, Maharashtra in 2009 and 2011, respectively. She is currently pursuing her Bachelors of Engineering degree in Information Technology from Sinhgad Academy of Engineering,Pune.

Third Author



Sali Patil completed her 10th and 12th from Kendriya Vidyalaya ONGC Ahmedabad, Gujarat in 2009 and 2011, respectively. Currently, she is pursuing her Bachelor's degree in Information Technology from Sinhgad Academy of Engineering, Pune and will complete in 2015.

Fourth Author



Prof. Abhay N Adapanawar did his BE(electronics) , ME (computer engineering). He has published 6 papers in international journal and conferences and 11 in national journals and conferences. Currently he is pursuing his PhD and is Head of Department (I.T.) in Sinhgad Academy of Engineering, Pune. He has been in teaching stream for 25 years.