Meerkats File Synchronizer - Initial Report

Made in GB

1 Project Description

File synchronization has grown increasingly important as enterprises use the cloud as a means for collaboration. It is also commonly used for backup and for mobile access to files. In this project, our team is collaborating to develop a file synchronization software. We have chosen to name our software Meerkats, because the meerkats are one of the most collaborative animals in the world, and one of the main features for our software is collaboration.

1.1 Project Goals

The goals of this project are divided into two categories, technical goals and management goals.

1.2 Technical Goals

1. **Develop a File Synchronisation Software** File synchronization software is used to store copies of files from another device or to the cloud. The files are typically available to be accessed via a web-based portal. Some examples of file synchronization software include Box and Dropbox.

2. **Develop two clients (desktop and mobile)** The desktop will be built for the windows OS, and the mobile application will be using the android OS. Clients manipulate files within a diretory according to the commands from server.

3. **Build a server** The central server receives requests from clients and responds with commands to the clients which indicates different local manipulation.

1.3 Management Goals

1. **Improve communication skills** Good communication skills is one of the most basic skills that one can possess as an employee or student, but also a very important one. We aim to improve the team members ability to communicate effectively with each others and to convey information in a simple and unambiguous way.

2. **Practice diversity** The team consists of 6 members who come from different countries, speak different languages and have different backgrounds. We aim to learn how to recognize individual differences and understand how cultural differences can impact how people work and interact.

3. **Project management skills** Our aim is to take this project as an opportunity to build project management skills that are essential to successfully complete a project that includes, but not limited to, planning, leadership, communication and risk management.

4. **Teamwork skills** Teamwork is important for the success of this project. We aim to build teamwork skills that we can bring with us to future roles, after graduation. Each member will learn how to be a good team player by demonstrating skills such as negotiation, communication, problem solving and prioritization.

1.4 Implementation Strategy

The team will follow the waterfall model throughout the project. To comply with the project requirements, the team selected the development model to be branch/pull request model based on git. The team agreed to choose golang for the server side, C# for the desktop client and Java for the android client.

1.5 Project Deliverables

By completing this project, the following deliverables should be achieved.

1. **File Storage Server** This component is used to store files and deal with requests received from users.

2. **Mobile Client** Our Android solution. Users can use the app on the go and will enjoy features such as "Sign Up", "Log In", "View Files", "Upload Files", "Rename File"s, "Delete Files", etc.

3. **Desktop GUI Client** The desktop GUI client is based on the Windows OS and it includes the same features as the mobile client.

4. **Meerkats File Synchronizer Report** This report provides detailed information about the project in terms of team members, project plan, deliverables, timeline, technologies used, challenges and much more. It acts as a central reference for users who are interested in the software.

5. **Meerkats File Synchronizer Presentation** The team will put together slides to present the work behind out solution. The team will demonstrate the solution and its layout, features and will walk the audience through the functionalities supplied by the software.

1.6 Implementation Timeframe

The below table outlines the milestones along with a brief description and the expected timeframe.

#	Milestones	Description	Start Date	End Date	Status
1	Kick-off meeting	Background survey and initial plan	Jan 21, 2019	Jan 27, 2019	Completed
2	Software Design	Design the software layout	Jan 28, 2019	Feb 3, 2019	Completed
3	Software Development	Work to deliver the file synchronization software	Feb 4, 2019	March 21, 2019	In-Progress
4	Initial Report	To develop and submit the initial report	Jan 29, 2019	Feb 7, 2019	Completed
5	Group Presentation	To demonstrate the group initial software design and share the project plan	Feb 8, 2019	Feb 8, 2019	Not-Started
6	Software Testing	To test the software and ensure correct and secured implementation	March 15, 2019	March 21, 2019	Not-Started
7	Final report	To submit the final report describing complete information about the software and the project lifecycle	Feb 8, 2019	March 28, 2019	Not-Started
8	Final Presentation	To deliver the final presentation about the software	March 22, 2019	March 29, 2019	Not-Started

1.7 Project Progress

After two meetings with the group, it was discovered that the language could be a barrier towards successful implementation of the project. A solution to tackle this challenge was to make sure that we speak clearly, use simple communication and ask confirming questions. This is important to avoid misunderstanding and make sure that everyone is on the same page for every aspect of the project.

2 Project Organization

This project requires each member to play different roles and carry different responsibilities throughout the project lifetime. The following roles and responsibilities are stipulated below and have been agreed by the team

1. **System Developers** All team members participate in developing the software. Each individual develops a piece of the software. The developers follow specific software development guidelines to ensure consistency among the solution parts to allow efficient and smooth integration and high performance.

2. **System Testers** Each team member will develop a test scenario and will ask the other team members to execute it. All test scenarios will be devised and reviewed by the team members during the group project update meeting and prior to the testing phase.

3. **System Documenters** Two members will build the project reports (initial and final). Inputs to the reports will be submitted by each member and according to the current stage of the project implementation plan.

4. **Report Proofreading** Upon the completion of the final report. The team will proofread the report and share feedback prior to the final submission.

Responsibilities:

- **Boyang Zhang:** Server-side Development /Integration Test / Unit Test

- **Xi He:** Android Client-side Develop / Integration Test / Unit Test

- **YiFeng Zheng:** Android Client-side Development / Unit Test

- **Yenan Huang:** Desktop Client-side Development / Unit Test

- **Frida Solheim:** Initial Report and Presentation / Desktop Development / Final Report / Unit Test

- **Samah Alghamdi:** Initial Report and Presentation / Android Fevelopment / Final Report / Unit Test

2.1 Collaboration Tools

The team will be using Google Docs to share links and important updates, GIT to store project documentation and Slack to instantly communicate information regarding the project.

2.2 Peer Assessment

It was agreed by everyone that the final points should be divided equally by the team members. In the unlikely event of low commitment of one or more team members, the distribution of the points will be discussed again in a special meeting with everyone.

2.3 Conflict Management

The team members are inspired to provide friendly project environment that enables everyone to put the best efforts as they can as well as to build resilient team that respond to challenges, unforeseen events and different circumstances in timely manner and with the ability to continue meeting the planned dates and delivering quality outcomes.

One way to avoid conflict is to use consensus for important decisions and issues. For less important issues, we will rely on the subject matter expert with input from others.

Additionally, to ensure a successful outcome, the team has setup communication ground rules that benefit everyone and are effective should conflict arise. It has been agreed to fully abide by those rules and to review them frequently to ensure they make sense to everyone.

2.4 Communication Ground Rules

1. Mutually commit to our teams objectives as stated in the project report or negotiate until we can make this mutual commitment.

2. All team members are expected to attend team meetings unless they are out of town or sick. If a team member is unavailable, he or she should notify the rest of the team and should share their update through email.

3. Team meetings will start and end on time.

4. Action items will be distributed within 24 hours after the meeting.

5. Understand each others styles.

6. Tackle issues, not people.

7. Permit one speaker at a time (avoid side conversations).

8. Bring issues to the table during the team update meeting.

9. Explain the reasoning leading to your conclusions.

10. Invite inquiry into your views.

11. Inquire into the reasoning of others.