CSL2060
SOFTWARE REQUIREMENT SPECIFICATION

VOILA
CHAT APPLICATION

Preface

This is a software requirements specification (SRS) document of the Voila project (chat application). The purpose of an SRS is to list and prioritize all requirements set for the software being produced, and so work as an agreement between the project personnel and the customer. This document provides a basis for future enhancements and it also reduces development effort. In this document general overview of software, functional, non-functional and interface requirements are proposed to get an overview of the final product.

Introduction

Context

There are numerous chat applications available for real time chatting over the internet. But our android application “Voila” is a very simple and interactive one to use. It is easy to use so that even a novice can use it. The development of this project centered on making a message protocol that would allow only signed users to send and receive messages from some other personal user.

Problem Specification

There are a lot of chatting but all of these have a lot of tedious functions and features which makes it hard to use for new users. The project is to create a simple chat application which enables users to seamlessly communicate with each other. The users should be able

to chat with each other, only from user to user (no group chatting). The project should be very easy to use and interactive to work with.

Problem objective

To develop an instant messaging solution to enable users to interact with each other.

To create a simple and user-friendly UI for the application.

To create a backup of the chat history in case the user's device crashes.

Scope of the Software

Application can be used for personal chat between two users and can store chat automatically on cloud.

Can also be used as a chat application for company employees for only for company use and head of department to have access to databases, can see the conversation and can also broadcast some message to all users.

Intended Audience and Intended Use

The target audience is everyone who wants to use a chat app on their android smartphone and the targeted use of this application is person-to-person chat.

Some small business companies can also use this app as their internal chat app. Owner can have access to all the chats.

Summary/overview of the document and its structure

This document contains:

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Preface: It consists of the written introduction of the document and what the document is about.

Introduction: It consists of a general introduction to the software project, problem statement, object, target and scope of application.

General description: It gives a basic idea about the application , its features and scenarios. It consists of a flow chart, use cases and overall description of application.

Function requirements: Functionalities expected and required in Project application, What functionalities it will provide.

Interface requirements: It consists of features expected from interface and how interface must be.

Performance requirements: Performance expected from applications like time complexity, react time and loading time and resources.

Hardware and software constraints: Minimum Hardware and software requirements to run the application perfectly without any issue.

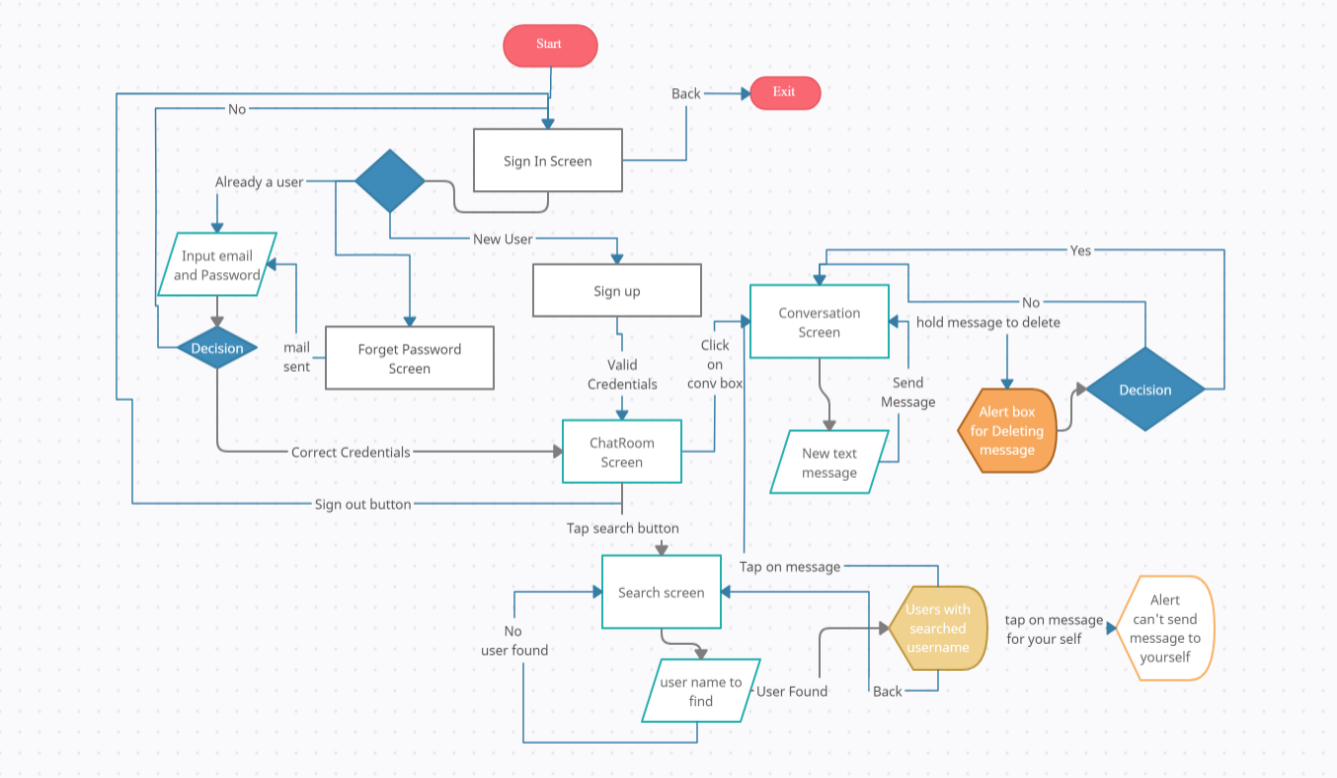
Design constraints: Constraints in design of application and what features cannot be provided due to the constraints.

Non-functional requirements: Requirements and expectations other than functionality,

Schedule/ budget estimates: Schedule of different phases of working on Application and Estimated budget of making such application.

General Description

Workflow/flowchart



Use-cases/ User Scenarios

Registration of new users: Users need to have an email account to sign-up in the application. They can sign-up with a few details such as username, mail ID and password. Users can sign-up with their google account and can use the same account for further logins. Registered ID generated will be saved in the database to store chats and access chat history from the database.

Login: If a user has already registered he can login with his correct credentials, he selected while registering. If a user fails to enter the correct credential he can't continue and has to provide the correct password and ID. After logging in users can have access to their previous chats, they made it before logging out last time.

Forgot password: In case if a user failed to provide the correct credentials, he can opt for the forgot password option. User will get a method to reset password and login into the application on his provided email address.

Searching among other users: User can also search among another user among his contact list. He can use the provided search bar for this action.

Chatrooms: In this screen it will show all the other users who have recently communicated with the user and click on any user box to move to their conversation screen.

Conversation Screen: A screen where the user can see all the previous conversation made with that specific user and can continue to chat on this screen only.

Sending Message: in the conversation screen user can write his message he wants to convey and press the provided send button to send the provided text to another user. The other will receive the message and do the same. Users can also permanently delete messages for both the users by simply holding the message and confirming the alert box.

Logout: Users can easily log out of the application just by pressing the logout button. It will take the user to login screen. Whenever someone login with the same credentials will get the backup of the data and can see chat history associated with that user.

*(Additional use case)

Overall description of the software product

The software developed “Voila” is an android chat application. It is simple, sleek and easy to use applications. Like other applications there are no extra tedious features and requirements. It is a very basic chat application. Just sign in and start chatting. It is so simple to use that even a novice can use it.

Function Requirements

This section contains the function that will cover the functionality requirements of the chat application provided by the user:

New user registration: New users can register with any email ID by selecting a unique user name and can even register through their own google account.

Login: Only registered users can login into the application. They can use their unique credentials and if the user forgot his password, the app user can choose a reset password and email will be sent to his email with password reset link.

Send Message: Users can send text messages to specific users who need to be logged in to the application. Only person-to-person messaging is available,but no group chat. In further updates after the base model, broadcast message and media attachment features might be available.

*Delete message: Users can delete already sent messages by pressing and holding the message and an alert box will appear for confirmation. Messages will be deleted permanently and for both the users.

User search box: User can search for other users using the search bar at the top of the app to find other users of the app from his contact list or the user might have texted earlier.

Chat history: The stores the chat history in its cloud database to see the previous conversations with a specific user, user can go to his conversation box and just scroll up to see previous chats with that user.

Logout: This function gives the user the freedom to change the user of the application at will. Using this feature it will take the user to login screen where another user or same user can sign in again.

Chat Backup: Whenever a user registers , it will create a new account in the database and store the whole data there. When current user logout of App

Interface Requirements

The application interacts with the user by means of user interface and it needs to be simple, sleek and elegant.

Interface needs to be self explanatory and the user must easily get in flow with the application and its functionalities.

Interface must look interactive and features must be easier to find and use.

Performance Requirements

Responses to queries shall take no longer than 1 second to load onto the screen after the user presses the send button for 1 user.

The system shall display some type of confirmation to users within 0.4 milliseconds after the user submits information to the system.

The system should generate policy with an accuracy of 99%.

Hardware and Software Constraints:

Users must have an Android smartphone running on Android version 5.0(lollipop) or higher architecture.

Users must have a continuous and stable internet connection.

At Least 1Gb RAM and 100 mb of free space in the device.

Design Constraints

Because of design constraints app loses some functionalities:

App does not support group chat.

App does not have video or voice call features.

App does not support sharing of media files or attachments.

App does not support uploading stories and status like features.

(Higher version of application may have these features)

Non-functional Requirements

In this part , requirements other functionalities of application, such as quality and user interaction with application.

Measures

User friendly: Application needs to be user friendly, it must be easier for users to find and interact with features and functionalities.

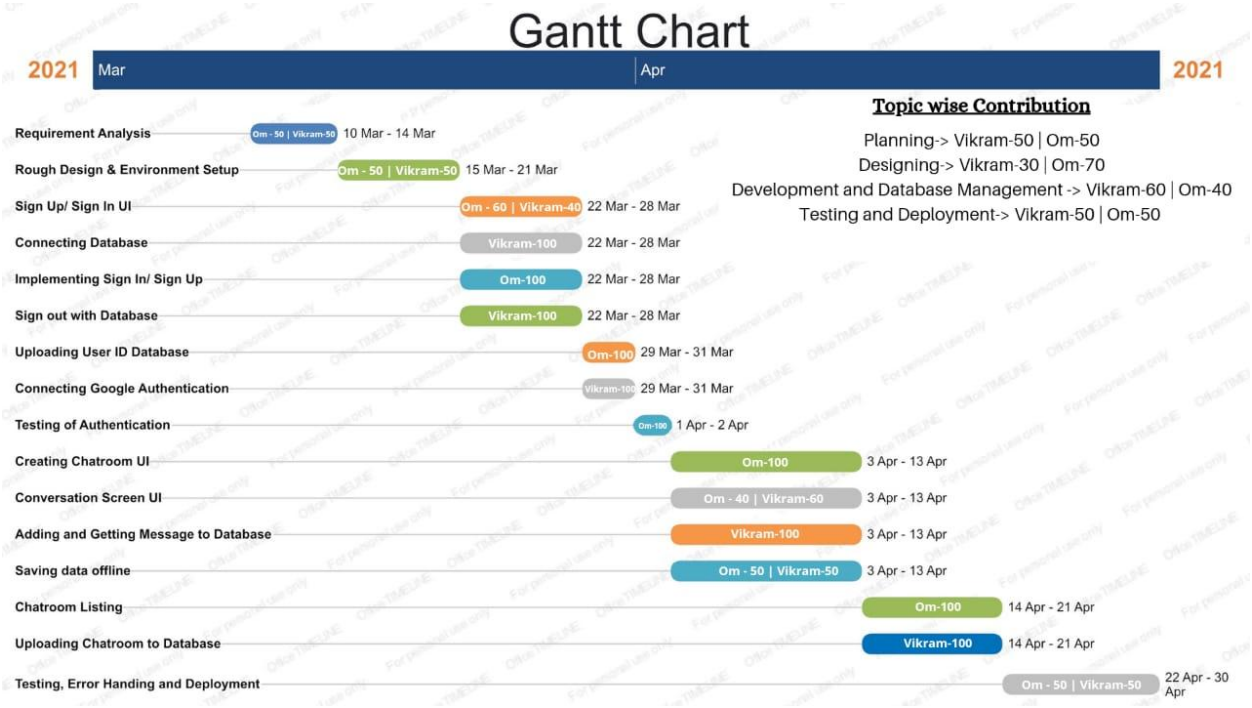
Performance: Application needs to be lightweight and as it is a real-time chat application, the time between sending and receiving a message on the other side needs to be short.

User interface: Interface must be up to date with the current design and UI technology. It must not look like some application launched in 2005 for iphone 3.

Robustness: In case of some accident if application crashes, user lost his all device data, user lost application or somehow application crashes on users device, user's data must be backuped somewhere on the cloud. So that when he installs his application back he can get his data back.

Schedule & Budget Estimates

Schedule of project is as described in Gantt Chart:



Final Application is supposed to be finalised by 30th of April.

Budget of Project is estimated to be around $1500 (~110,000 Rupees). The budget is estimated as the project requires work of around 1.5 month. The frontend and UI development budget is close to 60,000 rupees and for database and functionality programming cost is nearly 50,000 rupees, making the overall budget close to 1.1 lakh indian rupees. The budget is perfect looking for the outside world and requirements in the application.