PROJECT TITLE: WeTalk: Chatting Application


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**TABLE OF CONTENT**

# 1. PROJECT REQUIREMENTS

## 1.1 System Platform

WeTalk server can run on Windows, Linux or Mac OSX platform as long as nodejs is being install in the computer. WeTalk chatting application minimum requirement is android version 4.0.3 and above. There are only one types of networking environment involve in this WeTalk Chatting Application which is local area network at this moment. This WeTalk Chatting Application is focus on local area network that suitable for office user, students and home user. Extending the connectivity to online environment is also possible and required a dedicated server hosting for that purpose.

## 1.2 Hardware Requirement

The hardware requirements for this application is consist of :

- Android devices running Android version 4.0.3 and above
- WiFi Access Point
- Server Computer running on Windows, Linux or Mac OSX

## 1.3 Software Requirement

The software needed for this application is:

- Nodejs
- Xampp Server (Optional)

This software only needed to host a server application.

### 1.4 Project Plan

Project development plan:

A. System Analysis (1 August – 15 August 2015)
   I. Fisibility study
   II. Return of Viability Study
B. System Design (16 August – 31 August 2015)
   I. System architecture and Network Topology
   II. Interface design
C. Implementation and maintenance (1 September – 15 October2015)
   I. Installation
   II. Testing and finalizing
D. System Development (1 September – 30 September 2015)
   I. Server setup and development
   II. Interface development
E. Documentation (1 August – 31 October 2015)

Project development progress shown in Figure 1.1.

| Project Progress (%) 1 August - 31 October 2015 | | | | | | |
|---|---|---|---|---|---|---|
| Month | 1 - 15 August | 15 - 31 August | 1 - 15 September | 16 - 30 September | 1 - 15 October | 16 - 31 October |
| Project Progress | 10% | 30% | 50% | 70% | 85% | 100% |

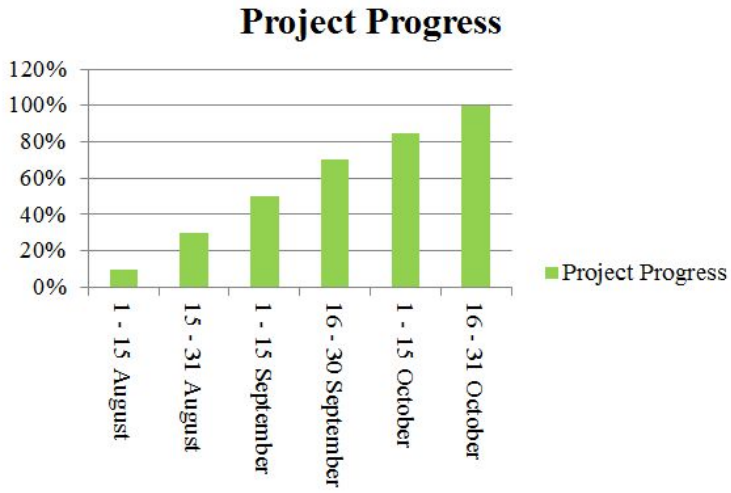


**Figure 1.1 Project Progress**

## 2. DESCRIPTION OF THE SYSTEM

### 2.1 Abstract

This project focuses on implementing a chatting system for people in a local area network environment. This WeTalk Chatting Application will allow the users to chat with other people. It allows the user to share information or chatting in a local network environment. The most important part of this WeTalk Chatting Application is an implementation of chatting using localhost server to chat with people rather than using an online services such as Whatsapp, Telegram, WeChat etc. The user only need to run the WeTalk server application and user required to enter the server IP Address and Port Number of that computer host server. If the server is hosted in a dedicated server, user can replace the IP Address with the Domain Name Server.

### 2.2 Overview

Chatting application has been commonly used as one of the communication tools which are easy to use as long as the person has internet connection. Chatting application require the sender and recipient to be connected online at the same time. Chatting is suitable especially for those who are live in the city that have internet connectivity. For those who do not have the Internet connection, they cannot use application such as an chatting application. This WeTalk Chatting Application provide user a localhost server which is use as server to chat with people without need for an internet connection.

Local Area Network has been used widely in the computer and android. Local Area Network are usually use to connect among computer and mobile devices such as android

devices. This application using the local server as the main network for user to chatting with other people. The user only need to enter their server IP Address together with port 3333.

## 2.3 Problem Statement

People these days a rely too much on Internet connection even in situation they not need it. For mobile users, limited access to Internet bandwidth and data can bring a problem to people that always need a connection. WeTalk chatting application provide alternative solution for this problem. Home, student hostel, offices, residential area etc can setup a WiFi access point easily these days. Even without internet connection, user can setup a local chatting system using WeTalk and host own chatting server. This also give user a privacy communication that Whatsapp, Telegram etc do not offer.

## 2.4 Objective

The objective of this project is to provide an mobile chatting application for local area network.

1. Chatting
2. Private communication
3. To communicate with other people

## 3. FUNCTIONALITIES AND FEATURES

This mobile chatting application offer a features such as local area network chatting system. It also can be expand to the internet connection by using dedicated online host server. When in use as a local area network chatting system, WeTalk offered privacy chatting environment since the server is running on user own host server. In term of functionality, users can use it to communicate with each other. It is useful to be use in home, office or residential area such as student hostel or hotel.

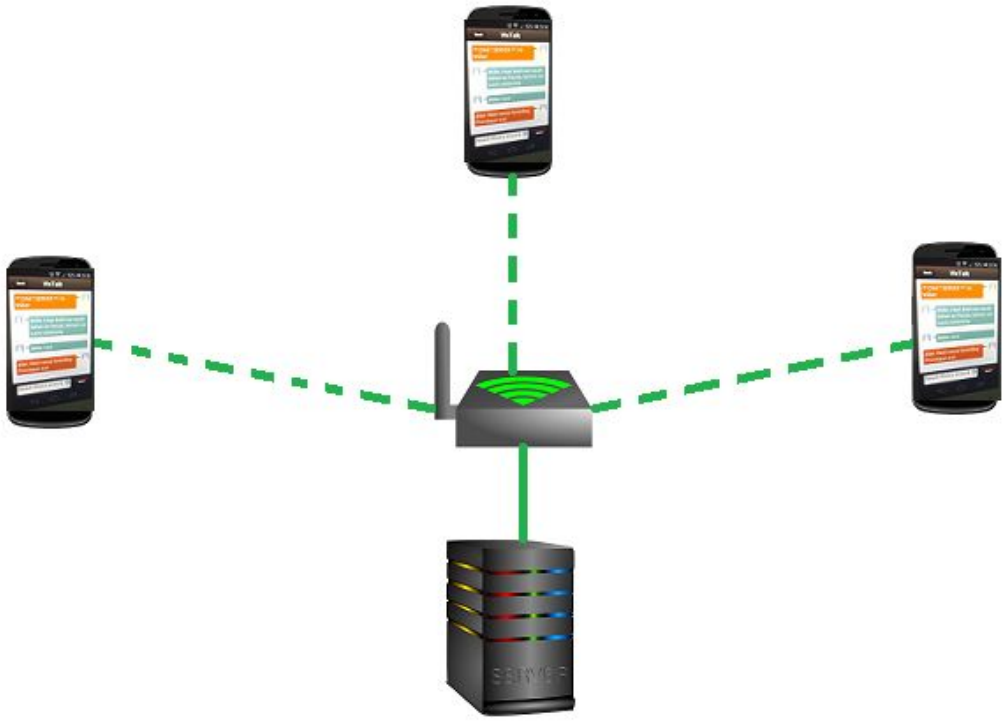

**Figure 1.2: Architecture**

## 4. INNOVATIVENESS AND UNIQUENESS

### 4.1 Idea and Concept Analysis

The WeTalk Chatting Application is like other chat application. This application is focus on local and personal chatting application that relieve the dependency of internet connection. It help user to conserve mobile data and internet bandwidth. The user just need to enter their nickname and local server IP Address and port number to login. There are no need for registration for the user. The user can chat among other by using the same local host server follow by port 3333. Then the user can start chatting with other. It is useful for use in a disaster situation where there is no communication network available.

## REFERENCES

[1] Project Link URL: https://github.com/AshrafStrife93/WeTalk

[2] Nodejs, https://nodejs.org/en/

[3] Xampp Server, https://www.apachefriends.org/index.html

[4] Android SDK, http://developer.android.com/sdk/index.html