**Project Overview**

Internet based chatting has been one of the most ubiquitous technological concepts of the 21st century so far. It is one of the most important features of all social media platforms and an average human heavily invests time in it to stay connected socially with contacts in various parts of the world. Although there are a lot of chat-based platforms currently available on the internet and on the app stores of various mobile phone environments, there is still great room for improvement as the concept of chat-based platforms is still in the preliminary stages of development.

There are many desirable features which are still missing from most of the current chatting applications. An innovative chatting application could implement all of these features and greatly enhance user experience while chatting. Some of these features are real time translation to the user preferred language, self-built emoticons, recipient based predictive text, priority based notifications with an optional system overriding feature, direct web search, etc.

This application is intended to be used by the “internet dependent humans” of the 21st Century of all age groups ranging from children to elderly people. It will contribute in general to the globalization of the world by connecting humans from all social environments through a basic communication based application.

Building this application has its own set of challenges. There are network based challenges when dealing with networking applications with a large user base. It must be implemented efficiently to prevent app crashes during peak periods of activity such as during festivals. Other than all these there is competition with multi-billion dollar companies such as Google and Facebook, which are also working on this.

**Plan of working on the project**

First of all, we intend to break the project into its fundamental parts and then we will piece them together to build the application in an object-oriented fashion. First, we will build a basic chatting environment. After that, we will allow various social media connections. Then we will implement the various add-ons such as the translation feature, the priority notification alert,

the personalized predictive text, self-built emoticons, etc. Then we will upload it on an online store so that it can be used by PC users. After that, we will market the product to widen our user base.

**Functional Requirements**

* There should be functions for
  + Register
  + Login
  + Logout
* This App should have friend List.
* User shall be able to clear chat history.
* User shall be able to add, block or remove friends.
* There should be an emoticon building option for the user to build their own emoticon.
* There should be a real-time text translation to other languages.
* There should be a user login interface with options to connect to other social media platforms.
* There should be a notification level setting function.

**Non-Functional Requirements**

* The app should be user-Friendly.
* GUI based chatting environment.
* End to end encryption for privacy.
* All data must be backed up.
* A database system to store user login credentials

**Hardware Requirements**

* A PC running Windows 8+
* 1GB minimum RAM required
* Processor with speed of at least 1 GHz
* A wi-fi connection or a LAN connection

**Software requirements**

* The logical aspect of this application is based on Java
* The application GUI would be done using Java Swing
* The database storing would be done in MySQL
* It will be available online in the form of an executable jar file

**Publicity**

* This application can be publicized through social media platforms such as Facebook and WhatsApp
* Paid advertising on websites and other applications is also a considerable option
* We could also implement a beta version in our university to get feedback from the students on the features which could be added to improve the user experience

**Cost**

* This application would be available free of cost online
* There would be in-app purchases if the user wants to add some useful add-ons, which are unique to this application. This is our unique selling point