Visvesvaraya Technological University

Belagavi, Karnataka – 590018

Project report on
JSS CHAT BOX

Submitted in partial fulfillment of the requirements for the course

MOBILE APPLICATION DEVELOPMENT
(18CSMP68)

Submitted by

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CERTIFICATE

This is to certify that the project work entitled "**TEXT FROM IMAGE USING OCR**" is a bona fide work carried out by **Mr. DARSHAN PS(1JS20CS055)** and **Mr. CHIDANAND SV(1JS20CS50)** in partial fulfillment of the requirements for the course Mobile Application Development of 6th semester, Bachelor of engineering in Computer Science and engineering of the Visvesvaraya Technological University, Belagavi, during the academic year 2022 – 2023. It is certified that all corrections and suggestions indicated for internal assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of the project work prescribed for the said degree.

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ABSTRACT

The College Chat Box mobile application is designed to enhance communication and collaboration within college communities. It serves as a centralized platform where students, faculty, and staff can connect, exchange information, and engage in real-time conversations. The application provides a user-friendly interface with features such as group chats, individual messaging, and discussion forums, enabling users to interact seamlessly.

Through the College Chat Box, students can form study groups, seek academic assistance, and share resources, fostering a collaborative learning environment. Faculty members can use the application to disseminate announcements, conduct virtual office hours, and facilitate student-teacher interactions. Additionally, administrators can utilize the platform to communicate important updates, organize events, and gather feedback from the college community.

The application prioritizes user privacy and security, ensuring that sensitive information remains protected. It is compatible with various mobile devices, making it easily accessible to users on the go.

With its comprehensive functionality and intuitive design, the College Chat Box mobile application aims to revolutionize communication in colleges, fostering a connected and engaged campus community.

ACKNOWLEDGEMENTS

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CHAPTER 1

INTRODUCTION

1.1 Overview:

The college chat box mobile application is a robust and innovative communication platform tailored specifically for college students. With the goal of enhancing collaboration and connectivity within the college community, this application offers a comprehensive range of features and functionalities to facilitate seamless interaction among students.

Through group chats and private messaging, students can easily connect with their peers, fostering a sense of belonging and enabling them to collaborate on projects, assignments, and extracurricular activities. The application also supports file sharing, allowing students to exchange study materials, class notes, and important documents effortlessly.

Moreover, the college chat box app serves as a central hub for campus information and announcements. Students can stay updated on campus events, workshops, and club activities through event notifications, ensuring they never miss out on valuable opportunities to engage with the college community.

With a user-friendly interface and advanced security measures, the app prioritizes the privacy and safety of its users. Students can confidently engage in conversations, knowing their personal information and conversations are protected.

By promoting real-time communication, fostering collaboration, and creating a vibrant virtual community, the college chat box mobile application aims to enhance student engagement, academic success, and overall satisfaction within the college environment. It offers a seamless and efficient means for students to connect, collaborate, and stay informed, ultimately enriching the college experience for all users.

1.2 Problem Statement:

In today's college landscape, students often face challenges in effectively communicating and collaborating with their peers, leading to a lack of connectivity and hindered academic success. Traditional communication channels, such as email and physical notice boards, are often outdated, inefficient, and fail to meet the dynamic needs of modern students.

There is a pressing need for a comprehensive and user-friendly mobile application that specifically caters to the communication requirements of college students. The existing communication methods

lack the features and functionalities necessary for seamless collaboration, file sharing, event notifications, and real-time interaction.

Furthermore, the absence of a centralized platform leads to fragmentation and difficulties in finding relevant information and engaging with the college community. Students often miss out on important updates, events, and opportunities due to the lack of an effective communication channel.

To address these challenges, a college chat box mobile application must be developed, providing students with a secure, intuitive, and feature-rich platform that fosters connectivity, collaboration, and engagement within the college ecosystem. This application should bridge the communication gap, streamline information dissemination, and enhance the overall college experience for students.

1.3 Motivation:

The motivation behind developing a college chat box mobile application stems from the recognition of the critical role that effective communication and collaboration play in the success and overall experience of college students. Traditional communication methods fall short in meeting the dynamic needs and preferences of modern students, leading to fragmented and inefficient exchanges of information.

A college chat box mobile application aims to address these challenges by providing a centralized platform specifically tailored to the unique communication requirements of college students. By offering features such as group chats, private messaging, file sharing, and event notifications, the application aims to enhance connectivity, foster collaboration, and streamline information dissemination within the college community.

Moreover, the motivation behind this application is to create a vibrant and inclusive virtual space where students can engage with their peers, exchange ideas, discuss coursework, and access important resources. By promoting real-time interaction and encouraging active participation, the application seeks to enhance student engagement, academic success, and the overall college experience.

Ultimately, the motivation for the college chat box mobile application lies in empowering students with a user-friendly and efficient communication tool that bridges the gap between traditional methods and the evolving needs of the digital era, facilitating seamless connectivity and collaboration   among college students.

1.4 MAD Technologies

In the mini project, the following mobile application development technologies are used:

- o Kotlin: Kotlin is the primary programming language used for Android application development. It is a modern, expressive, and interoperable language that is fully supported by the Android platform. Kotlin offers concise syntax, null safety, and improved code readability, making it a popular choice for developing Android applications.

- o Android Studio: Android Studio is the official Integrated Development Environment (IDE) for Android app development. It provides a comprehensive set of tools and features specifically designed for building Android applications. Android Studio offers features like code editing, debugging, testing, and performance profiling, making it the preferred choice for Android developers.

- o Google Play Services: Google Play Services is a set of APIs and services provided by Google that allow developers to integrate various Google functionalities into their Android applications. In the mini project, Google Play Services may be used for features such as Google Search integration, Google Sign-In, or accessing Google Cloud services for image processing and OCR.

- o Internet Connectivity: The application requires internet connectivity to perform Google searches and potentially communicate with external OCR services. Standard Android technologies, such as the Network API or libraries like Retrofit or Volley, may be utilized to establish internet connections and handle network requests.

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1.4 Applications of MAD Technologies

Mobile application development technologies have a wide range of applications across various industries and use cases.

- o E-commerce and Retail: Mobile apps are extensively used in the e-commerce and retail sector for online shopping, product browsing, and personalized shopping experiences. Technologies such as mobile payment gateways, push notifications, and location-based services enhance the user experience and facilitate seamless transactions.

- o Social Networking: Social media platforms heavily rely on mobile application technologies for user engagement, content sharing, messaging, and real-time interactions. Features like news feeds, photo/video sharing, and social authentication are implemented using mobile app development technologies.

- o Travel and Tourism: Mobile apps play a crucial role in the travel and tourism industry, offering features like flight bookings, hotel reservations, itinerary management, navigation, and reviews. Integration with external APIs for travel services and geolocation technologies are utilized to provide a seamless travel experience.

- o Health and Fitness: Mobile health apps have become increasingly popular, allowing users to track their fitness goals, monitor vital signs, access medical information, and receive personalized health recommendations. Integration with wearables, fitness tracking sensors, and cloud-based data storage are common in this domain.

- o Banking and Finance: Mobile banking apps provide users with the ability to perform financial transactions, check account balances, view transaction histories, and manage investments. Security measures such as biometric authentication and encryption are implemented using mobile app development technologies.

- o Education and E-learning: Mobile apps are used extensively in the education sector for e-learning, online courses, and remote education. They provide features like video lectures, interactive quizzes, progress tracking, and communication

with instructors. Augmented reality (AR) and virtual reality (VR) technologies are also integrated into educational apps.

o Entertainment and Media: Mobile apps in the entertainment industry include video streaming platforms, music apps, gaming apps, and news aggregators. These apps leverage technologies like multimedia streaming, content recommendations, in-app purchases, and social sharing.

o Productivity and Business: Mobile apps improve productivity by offering tools for project management, task tracking, collaboration, document editing, and communication. Cloud storage integration, synchronization across devices, and integration with enterprise systems are common in business-oriented apps.

These are just a few examples of the numerous applications of mobile application development technologies. The versatility and widespread adoption of mobile apps across industries continue to drive innovation and provide solutions to diverse user needs.

CHAPTER 2

SYSTEM REQUIREMENTS

2.1 Hardware and Software Requirements

Hardware Requirements:

- o Android Device: The application will be developed for Android devices. Any Android smartphone or tablet with a camera and sufficient processing power should be capable of running the application smoothly. The specific Android version supported by the application should be determined during the development process.

Software Requirements:

- o Android SDK: The Android Software Development Kit (SDK) is necessary for developing Android applications. It includes tools, libraries, and resources required to build, test, and debug Android apps. The SDK provides APIs for interacting with device features like the camera and internet connectivity.
- o Kotlin Programming Language: The application will be developed using the Kotlin programming language. Kotlin is fully compatible with the Android platform and can be seamlessly integrated with existing Java code. It offers concise syntax, null safety, and various other features that enhance code readability and maintainability.
- o Android Studio: Android Studio provides a comprehensive set of tools and features, including code editor, emulator, debugging tools, and project management capabilities. Android Studio simplifies the development process by offering a user-friendly interface and seamless integration with the Android SDK.

CHAPTER 3

SYSTEM DESIGN

3.1 Proposed System

the proposed college chat box mobile application aims to provide a comprehensive platform for seamless communication, collaboration, and resource sharing among college students. The features and functionalities outlined above will empower students to connect, engage, and succeed in their academic pursuits while fostering a strong sense of community within the college ecosystem

1. User Registration and Authentication: The proposed system will include a user registration process where students can create their accounts using their college email addresses or student IDs. To ensure the security and privacy of user data, robust authentication mechanisms will be implemented, such as two-factor authentication or biometric authentication.

2. User Profile Creation: After registration, students will be prompted to create their profiles by providing relevant information such as their name, profile picture, major, and interests. This information will help in connecting students with similar backgrounds or interests, fostering meaningful interactions and collaborations.

3. Chat and Messaging Features: The core functionality of the college chat box app will revolve around chat and messaging features. Students will be able to engage in both one-on-one conversations and group chats. Within groups, students can create channels based on their courses, clubs, or extracurricular activities, making it easier to communicate and collaborate with specific sets of peers. Additionally, features such as multimedia sharing, voice messaging, and emojis will enrich the chat experience.

4. File Sharing and Collaboration: The proposed system will allow students to share files, documents, and other resources directly within the chat interface. This feature will facilitate seamless collaboration on group projects, assignments, and research papers. Students can upload and access files, provide feedback, and work together in a centralized and organized manner.

5. Event Notifications and Announcements: The college chat box app will include a notification system to keep students informed about important events, deadlines, campus announcements, and club activities. This feature will help students stay updated, actively participate in extracurricular activities, and make the most of their college experience.

6. Search and Discovery: To facilitate easier interaction and connection, the system will provide search and discovery features. Students can search for specific groups, courses, or student profiles based on their interests or majors. This functionality will enable students to find relevant resources, join relevant groups, and connect with like-minded individuals.

7. Privacy and Security Measures: The proposed system will prioritize the privacy and security of user data. Measures such as end-to-end encryption, data anonymization, and secure server infrastructure will be implemented to ensure the confidentiality and integrity of user conversations and personal information.

8. Mobile-Friendly and Cross-Platform Compatibility: The college chat box app will be developed as a mobile application that is compatible with both Android and iOS devices. This will allow students to access the application on their smartphones and tablets, ensuring convenience and accessibility.

3.2 Flow of Activity

Flow of Activity for College Chat Box Mobile Application:

1. User Registration and Profile Setup:
   - Students download the college chat box mobile application from their respective app stores.
   - They create their accounts by providing their college email addresses or student IDs and setting up passwords.
   - Students are prompted to complete their profiles by adding their names, profile pictures, majors, and interests.

2. Home Screen and Navigation:

  - Upon logging in, students are greeted with the home screen displaying various options and sections.

  - The navigation menu allows users to access different features, including chats, groups, events, and settings.

3. Chats and Messaging:

  - Students can initiate one-on-one conversations by searching for specific users or selecting them from their contact list.

  - Group chats enable students to join or create channels based on their courses, clubs, or interests.

  - Within chats, students can send text messages, multimedia files, and voice recordings.

  - Emojis, stickers, and formatting options enhance the messaging experience.

4. Search and Discovery:

  - The app includes a search functionality where students can look for specific groups, courses, or student profiles.

  - Users can discover relevant groups or channels based on their interests, majors, or extracurricular activities.

5. Privacy and Security:

  - The application ensures user privacy and data security through measures such as end-to-end encryption and secure server infrastructure.

  - Students have control over their privacy settings, including who can message them or access their profile information.

6. Logout and Account Management:

  - Students can easily log out of the application when they finish using it.

  - Account management options enable users to update their profile information, change passwords, or delete their accounts.

By following this flow of activity, the college chat box mobile application provides an intuitive and user-friendly experience, facilitating seamless communication, collaboration, and community building among college students
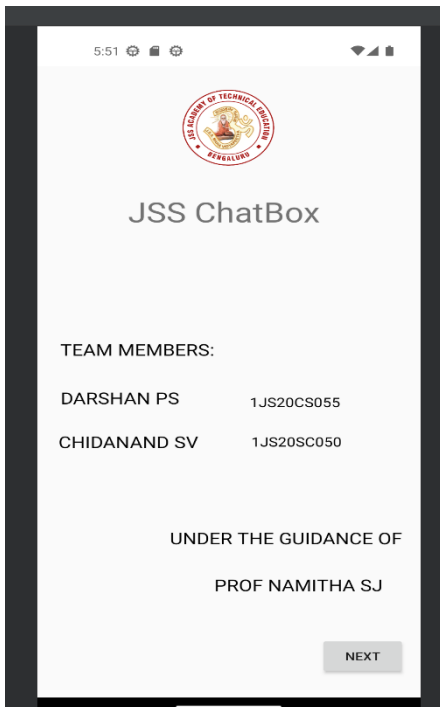
3.1:First page
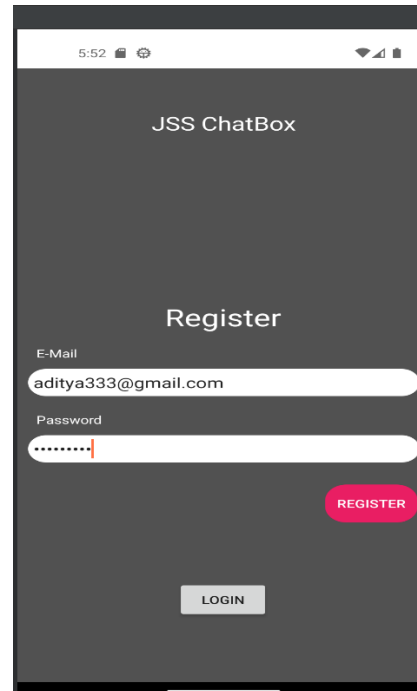
3.2:Register page

3.3:Login page

3.4:Chat

CHAPTER 4

IMPLEMENTATION

4.1 Module Description

LoginActivity Module

The "LoginActivity" module is a key component of an Android application that facilitates user authentication and login functionality. From a technical standpoint, the module imports n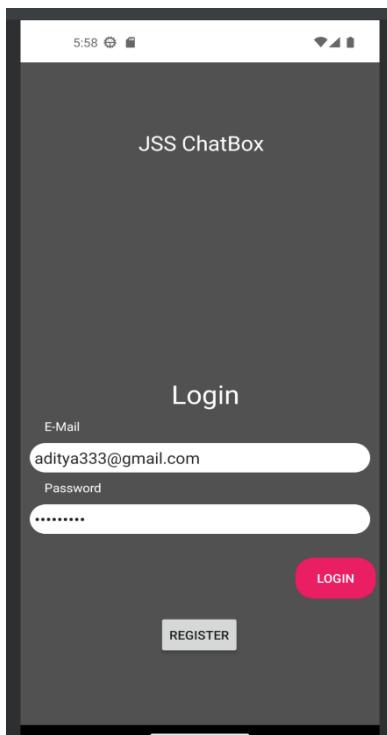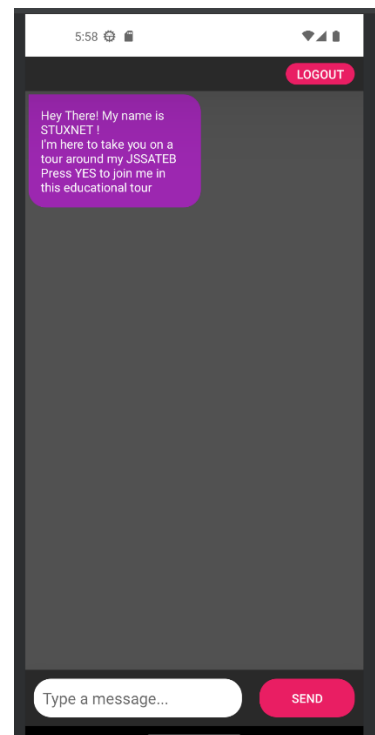ecessary dependencies and extends the "AppCompatActivity" class. It declares variables to reference user interface elements like EditText, Button, and TextView.

In terms of functionality, the module allows users to enter their username and password. When the login button is clicked, the module retrieves the entered credentials and compares them to valid credentials stored as constants. If the credentials match, the user is considered authenticated and is redirected to the MainActivity. In case of invalid credentials, an error message is displayed, and the input fields are cleared.

The LoginActivity module also handles the signup process. When the signup TextView is clicked, it creates an intent to launch the SignupActivity, providing users with the option to create a new account. The module includes a private method, validateCredentials(), which performs the validation of the entered credentials against the predefined valid credentials.

From a functional perspective, the LoginActivity module ensures that only authorized users can access the application's features and resources. It enhances security by validating the provided credentials and prevents unauthorized access. The module also provides a smooth user experience by displaying error messages for invalid credentials and clearing input fields for retry.

Overall, the LoginActivity module combines technical implementation, such as variable declarations and event listeners, with functional aspects like authentication and navigation, to create a seamless and secure login process within the Android application.

SignupActivity Module

The "SignupActivity" module is an essential part of the Android application and is responsible for handling user signup functionality. The module consists of variable declarations for UI elements like EditText and Button. It allows users to enter their desired username and password for creating a new account.

From a technical standpoint, the SignupActivity imports necessary dependencies and extends the "AppCompatActivity" class. It initializes the UI elements in the onCreate() method and sets up click listeners for the signup button and back button.

When the signup button is clicked, the module retrieves the entered username and password from the EditText fields. It creates an intent to launch the LoginActivity and passes the username and password as extras. This allows the LoginActivity to receive and process the new user's credentials for further authentication. After launching the LoginActivity, the SignupActivity finishes its own instance.

The back button click listener creates an intent to navigate back to the LoginActivity, providing users with an option to return to the login screen without signing up.

Functionally, the SignupActivity module enables users to create a new account by entering a username and password. It enhances user experience by providing a smooth transition to the LoginActivity after successful signup. From a security perspective, the module facilitates the creation of new user accounts, allowing for personalized access tothe application's features and resources.

Overall, the SignupActivity combines technical implementation, such as variable initialization and intent creation, with functional aspects like user account creation and navigation, to deliver a seamless and intuitive signup process within the Android application.

Message adapter Module

This module represents the MessagingAdapter used in the Sekobanashi chat application. It extends the RecyclerView.Adapter class and is responsible for managing the display of messages in the RecyclerView. The module includes an inner class, MessageViewHolder, which holds the message view items and handles click events to remove messages when clicked.

In the onCreateViewHolder() method, the MessageViewHolder is created by inflating the msg_item layout. This layout defines the appearance of individual message items in the RecyclerView.

The onBindViewHolder() method binds the data to the corresponding view holder. It sets the text of the message to the appropriate TextView based on the message ID (SEND_ID or RECEIVE_ID). If it's a sent message, the user's message is displayed. If it's a received message, the bot's message is displayed.

The getItemCount() method returns the total number of messages in the messagesList.

The insertMessage() function is used to add a new message to the messagesList and notify the adapter about the data set change.

Overall, the MessagingAdapter module facilitates the display and management of messages in the RecyclerView, providing a seamless messaging experience in the Sekobanashi chat application.

MainActivity Module

This module represents the main activity of the Sekobanashi chat application. It handles user interactions, displays the messaging interface, and manages message sending and receiving. The module includes functionalities such as sending messages, scrolling to the correct position when the user clicks on the text view, and initializing the messaging adapter for the RecyclerView. It also implements the bot response logic by generating automated responses based on user input. Additionally, it incorporates Firebase Realtime Database to store and retrieve messages. The module enables the user to communicate with the chatbot and receive replies, creating an interactive chat experience within the application

.

4.2 Source code

Firstpage.kt

package com.example.sekobanashi.ui

import android.content.Intent

import androidx.appcompat.app.AppCompatActivity

import android.os.Bundle

import com.example.sekobanashi.R

import kotlinx.android.synthetic.main.activity_firstpage.*

```
class firstpage : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_firstpage)
        nxt.setOnClickListener{
        startActivity(Intent(this@firstpage,LogReg::class.java))
        }
    }
}
```

Login.kt

package com.example.sekobanashi.ui

```
import android.content.Intent

import androidx.appcompat.app.AppCompatActivity

import android.os.Bundle

import android.widget.Toast

import com.example.sekobanashi.R

import com.google.firebase.auth.FirebaseAuth

import com.google.firebase.auth.ktx.auth

import com.google.firebase.ktx.Firebase

import kotlinx.android.synthetic.main.activity_log_reg.*

import kotlinx.coroutines.CoroutineScope

import kotlinx.coroutines.Dispatchers

import kotlinx.coroutines.launch

import kotlinx.coroutines.tasks.await

import kotlinx.coroutines.withContext


class LogReg : AppCompatActivity() {


    private lateinit var auth: FirebaseAuth

    // Initialize Firebase Auth

    override fun onCreate(savedInstanceState: Bundle?) {

        super.onCreate(savedInstanceState)

        auth = Firebase.auth

        setContentView(R.layout.activity_log_reg)

        btnLogin.setOnClickListener {

            loginUser()

        }
```

```
signup.setOnClickListener{

   startActivity(Intent(this@LogReg,register::class.java))

 }

}
```

MainActivity.kt

```
package com.example.sekobanashi.ui


import android.content.Intent

import android.net.Uri

import android.os.Bundle

import android.provider.MediaStore

import android.view.View

import androidx.appcompat.app.AppCompatActivity

import androidx.recyclerview.widget.LinearLayoutManager

import com.example.sekobanashi.R

import com.example.sekobanashi.data.Message

import com.example.sekobanashi.utils.BotResponse


import com.example.sekobanashi.utils.Constants.OPEN_GALLERY

import com.example.sekobanashi.utils.Constants.OPEN_GOOGLE

import com.example.sekobanashi.utils.Constants.OPEN_SEARCH

import com.example.sekobanashi.utils.Constants.RECEIVE_ID

import com.example.sekobanashi.utils.Constants.SEND_ID

import com.example.sekobanashi.utils.Time
```

```kotlin
import com.google.firebase.auth.FirebaseAuth

import com.google.firebase.database.FirebaseDatabase

import com.google.mlkit.nl.smartreply.TextMessage

import kotlinx.android.synthetic.main.activity_main.*

import kotlinx.coroutines.*

class MainActivity : AppCompatActivity() {

  //var database = FirebaseDatabase.getInstance(https://chatapp-e9873-default-rtdb.asia-
southeast1.firebasedatabase.app')

  //var myRef = database.getReference("message")

  private lateinit var adapter: MessagingAdapter

  private val botList = listOf("Bot","Bot","Bot","Bot")

  var conversation= ArrayList<TextMessage>()

  var userId="user01"

  override fun onCreate(savedInstanceState: Bundle?) {

    super.onCreate(savedInstanceState)

    setContentView(R.layout.activity_main)

    recyclerView()

    clickEvents()

    //val musername = intent.getStringArrayExtra("user_name")

    val random = (0..3).random()


  customBotMessage("Hey There! My name is STUXNET ! \n" +

        "I'm here to take you on a tour around my JSSATEB\n"+

        "Press YES to join me in this educational tour"

    )

  }
```

```
private fun clickEvents() {

//Send a message

btn_send.setOnClickListener {

sendMessage()

}

//Scroll back to correct position when user clicks on text view

et_message.setOnClickListener {

GlobalScope.launch {

delay(100)

withContext(Dispatchers.Main) {

rv_messages.scrollToPosition(adapter.itemCount - 1)

}

}

}

}


private fun recyclerView() {

adapter = MessagingAdapter()

rv_messages.adapter = adapter

rv_messages.layoutManager = LinearLayoutManager(applicationContext)

}


override fun onStart() {

super.onStart()

//In case there are messages, scroll to bottom when re-opening app
```

```kotlin
GlobalScope.launch {

delay(100)

withContext(Dispatchers.Main) {

rv_messages.scrollToPosition(adapter.itemCount - 1)

}

}

}


private fun sendMessage() {

val message = et_message.text.toString()

val timeStamp = Time.timeStamp()

if (message.isNotEmpty()) {

et_message.setText("")

adapter.insertMessage(Message(message, SEND_ID, timeStamp))

rv_messages.scrollToPosition(adapter.itemCount - 1)

botResponse(message)

//myRef.setValue(message);

}

}
```

Message_adapter.kt

```kotlin
package com.example.sekobanashi.ui


import android.view.LayoutInflater

import android.view.View
```

```kotlin
import android.view.ViewGroup

import androidx.recyclerview.widget.RecyclerView

import com.example.sekobanashi.R

import com.example.sekobanashi.data.Message

import com.example.sekobanashi.utils.Constants.RECEIVE_ID

import com.example.sekobanashi.utils.Constants.SEND_ID

import kotlinx.android.synthetic.main.msg_item.view.*


class MessagingAdapter:RecyclerView.Adapter<MessagingAdapter.MessageViewHolder>() {

var messagesList = mutableListOf<Message>()

inner class MessageViewHolder(itemView: View) : RecyclerView.ViewHolder(itemView){

init{

itemView.setOnClickListener {

messagesList.removeAt(adapterPosition)

notifyItemRemoved(adapterPosition)

}

}

}

override fun onCreateViewHolder(parent: ViewGroup, viewType: Int): MessageViewHolder {


return

MessageViewHolder(LayoutInflater.from(parent.context).inflate(R.layout.msg_item,parent,false))

}

override fun onBindViewHolder(holder: MessageViewHolder, position: Int) {

val currentMessage = messagesList[position]

when(currentMessage.id){
```

```kotlin
SEND_ID -> {

holder.itemView.tv_message.apply {

text = currentMessage.message

visibility = View.VISIBLE

}

holder.itemView.tv_bot_message.visibility = View.GONE

}

RECEIVE_ID -> {

holder.itemView.tv_bot_message.apply {

text = currentMessage.message

visibility = View.VISIBLE

}

holder.itemView.tv_message.visibility = View.GONE

}

}

}

override fun getItemCount(): Int {

return messagesList.size

}



fun insertMessage(message: Message){

this.messagesList.add(message)

notifyItemInserted(messagesList.size)

//notifyDataSetChanged()

}
```

spscreen.kt

```kotlin
package com.example.sekobanashi.ui


import android.content.Intent

import androidx.appcompat.app.AppCompatActivity

import android.os.Bundle

import android.widget.Toast

import com.example.sekobanashi.R

import com.google.firebase.auth.FirebaseAuth

import com.google.firebase.auth.ktx.auth

import com.google.firebase.ktx.Firebase

import kotlinx.android.synthetic.main.activity_register.*


class register : AppCompatActivity() {

    private lateinit var auth: FirebaseAuth

    override fun onCreate(savedInstanceState: Bundle?) {

        super.onCreate(savedInstanceState)

        setContentView(R.layout.activity_register)



auth = Firebase.auth

        btnRegister.setOnClickListener {

            registerUser()

        }

        Login.setOnClickListener{
```

```
        startActivity(Intent(this@register,LogReg::class.java))

}

}

private fun registerUser() {

val email = etEmailRegister.text.toString()

val password = etPasswordRegister.text.toString()

auth.createUserWithEmailAndPassword(email, password)

.addOnCompleteListener(this) { task ->

if (task.isSuccessful) {

// Sign in success, update UI with the signed-in user's information

startActivity(Intent(this@register,LogReg::class.java))

} else {

// If sign in fails, display a message to the user.

Toast.makeText(

baseContext,

"Authentication failed.",

Toast.LENGTH_SHORT,

).show()

}

}

}

}
```

botresponse.kt

```
package com.example.sekobanashi.ui

import android.content.Intent
```

```kotlin
import androidx.appcompat.app.AppCompatActivity

import android.os.Bundle

import android.os.Handler

import com.example.sekobanashi.R


class spscreen : AppCompatActivity() {

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

setContentView(R.layout.activity_spscreen)

Handler().postDelayed({

val intent = Intent(this,LogReg::class.java)

startActivity(intent)

finish()

},800)

}

}


package com.example.sekobanashi.utils



import android.app.SearchManager

import android.content.Context

import android.content.Intent

import androidx.core.graphics.toColorInt

//import androidx.core.content.ContextCompat.startActivity
```

```kotlin
//import androidx.recyclerview.widget.RecyclerView

import com.example.sekobanashi.utils.Constants.OPEN_GALLERY

import com.example.sekobanashi.utils.Constants.OPEN_GOOGLE

import com.example.sekobanashi.utils.Constants.OPEN_SEARCH

import java.sql.Date

import java.sql.Timestamp

import java.text.FieldPosition

import java.text.SimpleDateFormat


object BotResponse {

fun basicResponses(_message: String): String {

//      val intent = Intent(Intent.ACTION_WEB_SEARCH)

//      var GOOGLE_SERACH_URL = "https://www.google.com/search?q="

val help="""help""".toRegex()

val about="""about""".toRegex()

val address="""address""".toRegex()

val contact="""contact""".toRegex()

val course="""course|courses""".toRegex()

val ug="""ug""".toRegex()

val fees="""fees|fee""".toRegex()

val library="""library""".toRegex()

val training="""training""".toRegex()

val hostel="""hostel""".toRegex()

val sports="""sports""".toRegex()

val transport="""transport""".toRegex()

val yes="""yes""".toRegex()
```

```
val civil="""civil""".toRegex()

val computer="""computer|cs""".toRegex()

val ise="""information science|ise""".toRegex()

val mech="""mechanical|mech""".toRegex()

val ele="""electronics""".toRegex()

val random = (0..2).random()

val message =_message.toLowerCase()


return when {

yes.containsMatchIn(input=message)->

{

"Welcome Aboard!! Lets Start This Fantastic Journey You can press the (help) to check out the

answers to various queries\n"+

"Lets Begin!"

}

help.containsMatchIn(input = message)->

{

"->About\n"+ "->Address\n"+"->Contact\n"+"->Courses\n"+"->UG\n"+"->Fees\n"+"->library\n"+"-

>training\n"+"->hostel\n"+"->sports\n"+"->transport\n"

}


about.containsMatchIn(input=message)->{

"JSS Academy of Technical Education (JSSATE) was established in the year 1997 at Bangalore and
```

is under the umbrella of JSS Mahavidyapeetha, Mysore. JSSATE is the result of the vision of our

President, His Holiness Jagadguru Sri Shivarathri Deshikendra Mahaswamiji to proactively

participate in establishing a world class Institution for Technical Education. The Campus is located

on a sprawling 21.17 acres land surrounded by lush green plantation on the South-Western edge of

Bangalore City. The institution is affiliated to Visvesvaraya Technological University (VTU),

Belagavi, India. \n"+ "You can press the (help) to check out the answers to various other queries\n"

"Lets Begin!"

}

address.containsMatchIn(input=message)->{

"JSS Academy of Technical Education\n" +

"\n" +

"JSSATE-B Campus,\n" +

"\n" +

"Dr.Vishnuvardhan Road,\n" +

"\n" +

"Uttarahalli - Kengeri Main Road,\n" +

"\n" +

"Srinivaspura-Post, Bengaluru – 560 060,\n" +

"\n" +

"Karnataka, India\n"+"You can press the (help) to check out the answers to various other

queries\n"+

"Lets Begin! \n"

}

contact.containsMatchIn(input=message)->

{

"Ph: 080 - 2861 2565 / 2861 1702\n" +

"Fax: 080 - 2861 2706 / 2861 2646\n"+

"Admission Coordinator:\n"+

"Contact & email: +91 6364771945; +91 9916253458, admissions@jssateb.ac.in\n"+

"Vice Principal:\n"+

"Contact & email:+91 9448234414; principal@jssateb.ac.in\n"+

"Administrative Officer:\n"+

"Contact & email: +91 9900928583; jssateao@gmail.com\n"+

"URL: www.jssateb.ac.in\n"+"You can press the (help) to check out the answers to various other

queries\n"+

"Lets Begin! \n"

}

course.containsMatchIn(input=message)->{

"UNDER GRADUATE PROGRAMS\n" +

"POST GRADUATE PROGRAMS\n" +

"RESEARCH PROGRAMS\n"

}

ug.containsMatchIn(input = message)->

{

"Under Graduate Programs Offered\n"+

"-> Civil Engineering\n" +

"-> Mechanical Engineering\n" +

"-> Information Science & Engineering\n" +

"-> Computer Science & Engineering\n" +

// "Electronics & Instrumentation Engineering\n" +

"-> Electronics & Communication Engineering\n"

//"Artificial Intelligence and Machine Learning\n" +

// "Robotics and Automation\n"

}

fees.containsMatchIn(input = message)->

{

"A. KEA - CET:\n" +

"•\tTuition fee: As per the Govt. of Karnataka orders.\n" +

"•\tCollege fees, VTU Fees & Multi skill training fees: As per the Govt. of Karnataka orders.\n" +

"•\tTransportation Fee (Optional): Rs. 20,000/-\n" +

"B. COMEDK:\n" +

"*- Includes Tuition,College and VTU Fees.\n" +

"In addition to above fees paid following is applicable:\n" +

"•\tEligibility Fees for Non-Karnataka students is Rs. 2,500/-\n" +

"•\tEligibility Fees for NRI students is Rs.12,500/- (one time)\n" +

"•\tTransportation Fee (Optional): Rs. 20,000/-\n" +

"C. MANAGEMENT:\n" +

"*- Includes Tuition,College and VTU Fees.\n" +

"In addition to above tuition fee for Management seats the following is applicable:\n"

"•\tCollege & VTU Fees : Rs. 42490/-\n" +

"•\tEligibility Fees for Non Karnataka students is Rs. 2,500/-\n" +

"•\tEligibility Fees for NRI students is Rs.12500/-, one time\n" +

"Q) Fee Structure for Lateral Entry Admissions (KEA - CET)::\n" +

"•\tTution fee Rs. 58806/-\n" +

"•\tCollege & VTU Fees: Rs. 45,690/- for CSE and ISE\n" +

"•\tCollege & VTU Fees: Rs. 45,840/- for ECE and EIE\n" +

"•\tCollege & VTU Fees: Rs. 45,340/- for ME, CIVIL and IEM\n" +

"•\tEligibility Fees for Non-Karnataka students is Rs. 2,500/-\n" +

"•\tEligibility Fees for NRI students is Rs.12,500/-, one time\n" +

"Q) Account Details:\n" +

"JSS Academy Of Technical Education, Bengaluru\n" +

"ACCOUNT NO: 520101062304263\n" +

"Union bank of India, Bangalore 560011,\n" +

"Jaya Nagar Branch: 00745\n" +

"IFSC Code: UBIN0900745\n"+"You can press the (help) to check out the answers to   various

other queries\n"+

"Lets Begin! \n"

}

library.containsMatchIn(input = message)->

{

" •   Library with 2018.18 Sq.mts area\n"+

"•   Lending & News Paper sections open from 9.00AM -4.00PM, Reference Section is   open

from 9AM - 9PM and during exam -till 9. \n"+

"•   Library is automated using LIBSOFT software with access through web, having own library

portal (http://Libserver/OPAC)\n"+

"•   Have Reprographic and Photostat facility\n"+

"•   Each student can borrow 3 books from lending section and use for 15 days.\n"

" •   Having General Book Bank & each student can borrow 4 books and use for entire

semester.\n"+

"You can press the (help) to check out the answers to various other queries\n"+

"Lets Begin!\n"

}

training.containsMatchIn(input=message)->

{

"The T & P cell organizes the following activities for students –\n"+

"• Aptitude Related Analytical Skills for enhancing analytical skills of students.\n"+

"• Soft skills are a quite essential qualification for professionals aspiring to move up the value chain especially attitude, communication and presentation.\n"+

"• Group Discussions are organized to promote skills of interaction in group and leadership styles. The company executives/ employers will be invited to share their valued expertise on various topics, workplace situations with our students, current trends and future scenario.\n"+

"• Mock Interview rounds will be conducted to build confidence and self esteem in students to perform with ease in front of panel members during campus placements\n"+

"• Company Specific training programs will be conducted for all final year students on Aptitude related analytical skills, Group Discussion and Interview skills by Industry veterans just before the visit of MNCs.\n"+

"• Eminent management personalities are invited to conduct workshops on Personality Development, Interpersonal and Communication Skills, Time management, Memory Management etc.\n"+

"• Participation of students in activities that provide them all round personal and professional growth will be promoted."+

"You can press the (help) to check out the answers to various other queries\n"+

"Lets Begin!\n"

}

hostel.containsMatchIn(input=message)->{

" •   Well-furnished Boys hostel in the campus: Total capacity - 453\n"+

" o   Single Occupancy with attached bathroom & toilet facility - 15 Nos.\n"+

" o   Three sharing with general bathroom & toilet facility - 146 Nos.\n"+

" Well-furnished Girls hostel within the campus: Total capacity - 315\n"+

" o   Single Occupancy with attached bathroom & toilet facility - 06 Nos.\n"+

" o   Three sharing with attached bathrooms & toilet facility - 109 Nos.\n"+

" •   Spacious dining hall, TV room, Gym, internet facility, Sports facilities (Table tennis,

Badminton, Through ball, Football, Cricket) and round the clock security.\n"+

" •   Guest rooms for parents and guardians on payment basis subject to the availability.\n"+

" •   In the beginning of semester, students committee will be formed. The committee will discuss

and decide about the menu for breakfast, lunch and dinner for all the days.\n"+"You can press the

(help) to check out the answers to various other queries\n"+

"Lets Begin!\n"

}

sports.containsMatchIn(input=message)->

{

"JSS Academy of Technical Education, Bengaluru has been giving equal importance to both

Curricular, Co-curricular and extracurricular activities. To encourage the students to participate in

sports activities, the institute has created all the necessary sports facilities.\n"+

"Department of Physical Education and sports was started in the year 1997 aims at all round

development of the students' personality through sports activities. Our college Sports department has

been organizing many sports events such as VTU Inter collegiate, Bengaluru South Zone Cricket

Tournaments, Inter-zone sports events.\n"+

"Karnataka State Cricket Association (KSCA), Bangalore has recognized our college cricket ground

as one of the best turf cricket grounds in Karnataka. Our college sports department has been

conducting series of cricket matches which include Division matches, Women's' Matches, Zonal

Matches for Under 14, 16, 19, etc. throughout the year in association with KSCA."+"You can press

the (help) to check out the answers to various other queries\n"+

"Lets Begin!\n"

}

transport.containsMatchIn(input = message)->

{

"JSS Academy of Technical Education is situated in serene location at about 12 KM from main city center. It takes about an hour to reach the college in normal traffic condition.\n"+

"At present, the institute is operating buses in three routes to provide transportation services for both students and staff from different parts of the city. Buses are hired on annual contract basis from M/s. Sathyasai Tourists. The institute is located on Banashakari - Kengeri main road. Plenty of BMTC buses are plying via college to important places like Banashankari, Konanakunte Metro station, Electronics City, Kengeri, Majestic, Jayanagar, etc. Some of the major BMTC transit lines have routes that pass near our college are 375 (from Banashankari to Kengeri), 375D (from Banashankari to Kengeri), 378 (from Electronics city to Kengeri)."

}

civil.containsMatchIn(input=message)->

{

"The Department of Civil Engineering was established in the year 2009, with the vision to produce responsible, technically qualified professionals with ethical and human values by providing excellent teaching learning and research. The department is accredited to National Board of Accreditation (NBA) with a current intake of 60.\n" +

"\n" +

"The department has to its credit a team of qualified, experienced and dedicated faculty members. At present department have 8 faculty members with PhD degree and remaining faculty members in the department are carrying out their research work. The main aim of the department is to equip the students with the knowledge and expertise to grow professionally and contribute significantly to the society.\n" +

"\n" +

"Department has established membership with professional bodies, such as Indian Concrete Institute

(ICI) Bangalore center, Association of Consulting Civil Engineering (ACCE (I)) Bangalore Center and Builders Association of India (BAI) Bangalore Centre.\n" +

"\n" +

"The Department of Civil Engineering has established a good relationship with core Civil Engineering Industries. Department is coordinating with more than 25 companies which are offering internship and placement opportunities to the students. The department regularly organizes Webinars, Student development programs, Faculty development programs, Conferences, seminars and Workshops for the betterment of the students and Civil Engineering fraternity.\n"+

"Vision\n" +

"To produce responsible, technically qualified professionals with ethical and human values by providing excellent teaching-learning and research.\n" +

"\n" +

"Mission\n" +

"Impart fundamental technical knowledge through learner-centric teaching methodology.\n" +

"Empower student and faculty by involving in co-scholastic and research activities.\n" +

"Equip students to face socio-technical challenges with ethical and human values."

}
computer.containsMatchIn(input=message)->

{

"The Department of Computer Science and Engineering was established in the year 1997, with the objective of imparting quality education in the field of Computer Science and Engineering. The Program is accredited by NBA with current intake of 180 Students. The department has to its credit a team of qualified, experienced and dedicated faculty, whose main aim is to equip students with the knowledge and expertise to grow professionally and contribute significantly to the society.\n" +

"\n" +

"The Department is recognized as a research centre by Visvesvaraya Technological University, Belagavi. Faculty members are actively involved in publishing research paper in various National /International Journals and Conferences. The Department regularly organizes Student development programs, Faculty development programs, Conferences, and Workshops. A continuous interaction with industries is established through MOUs, Industry visits, and Internships. Department has a membership with professional bodies and conducts various technical activities. The Department has a technical forum called INiT (Innovation in Technology), student clubs NCrypt and Split_Train_Test which is responsible for research and development of innovative ideas.\n" +

"\n" +

"Students are consistently getting ranks in University exams. They are encouraged to participate in various co-curricular and extra-curricular activities and have won prizes. Training and Placement division provides full training and placement assistance to students in all areas of professional education. Around 90% of our students get placed in reputed companies. Students have exhibited good performance in competitive examinations. Alumnus are serving in various positions in reputed companies like Amazon, Adobe, Accenture, Wipro Technologies and Cognizant Technologies. With the rapidly evolving technology and continuous need for innovation, it has been the Department's ongoing endeavour to produce quality engineering graduates.\n"+

"Vision\n" +

"To be a distinguished academic and research Department in the field of Computer Science and Engineering for enabling students to be highly competent professionals to meet global challenges.\n" +

"Mission\n" +

"Impart quality education in Computer Science and Engineering through state-of-the art learning environment and committed faculty with research expertise.\n" +

"Train students to become the most sought-after professionals in the field of Information Technology by providing them strong theoretical foundation with adequate practical training.\n" +

"Provide a conducive environment for faculty and students to carry out research and innovation in collaboration with reputed research institutes and industry.\n" +

"Inculcate human values and professional ethics among students to enable them to become good citizens and serve the society."

}

ise.containsMatchIn(input=message)->

{

"The Department of Information Science and Engineering is established in the year 1999. The current intake is 120. Department is strengthened by well-qualified faculty members main aim is to emphasize the overall growth and development of students with cutting-edge technology by inculcating competence, commitment & teamwork. The Department comprises excellent infrastructure with well-equipped Laboratories, Classrooms, and Departmental Library.\n" +

"\n" +

"The Student forum SAMYOG is solely for the benefit of the student community established with the aim of by the students, of the students and from the students. The students actively take part in co-curricular activities like projects, paper & poster presentations, coding, debugging, etc. In the extra-curricular events like NSS, sports, college fest, and the preparation of technical magazines & newsletters. They are also participating in self-initiated outreach activities like YODHA , Book borrow.com, bookbeka.com, medical camps like blood donation camps, eye testing camps, dental camps, and Ayurvedic camps, etc. Industry interaction is established through MOUs. A good number of industrial visits, Invited lecturers, workshops, seminars, and webinars are also organized regularly in emerging technologies from experts of industries and institutions.\n" +

"\n" +

"Most of our students are well placed in fortune 500 companies. Our students have recorded very good performance in competitive examinations such as GATE, GRE, GMAT, TOEFL, CAT, PGCET, etc. Many of our Alumni joined MS programs in the leading and reputed Universities in the

world.\n" +

"\n" +

"Further, most of the faculty members and students won the best paper awards, the best poster awards, the best project awards in National / International Conferences across the globe. Our faculty members and students are also members of professional societies like ISTE, CSI, IEEE, IEI, ACM., etc. Under the R & D activity, Faculty are engaged in the publication of research papers in top journals indexed in Web of Science and Scopus indexed journals. The research Promotion Scheme project sponsored by AICTE has been completed.\n"+

"Vision\n" +

"To emerge as a centre of academic excellence, by producing competent professionals to meet the global challenges in the field of Information Science and Technology\n" +

"Mission\n" +

"Prepare the competent professionals to meet the advancements in the industry and academia by imparting quality technical education.\n" +

"Enrich the technical ability of students to face the world with confidence, commitment and team-work.\n" +

"Inculcate and practice strong techno-ethical values."

}

mech.containsMatchIn(input=message)->{

"The department established in the year 2004 offer's B.E. program in Mechanical Engineering with an intake of 180 students, M. Tech in Thermal Engineering with an intake of 18 students. The Department is recognized as a Research Center by Visvesvaraya Technological University, Belagavi for pursuing M.Sc.Engg.(by Research)/Ph.D. either part-time/full-time. The B. E program is re-accredited again for 3 years by National Board of Accreditation (NBA), under Tier-II (According to Washington Accord) w.e.f. 01.07.2020 to 30.06.2023. The Department has established a Centre of Excellence with M/s. Toyota Kirloskar Motors Pvt. Ltd., Bengaluru, and M/s. ACE Micromatics

Ltd., Bengaluru to provide hands-on training to the students in modern technology.\n"+

"Vision\n" +

"Be amongst the top Mechanical Engineering Department in the region by sculpting competent

engineers through education and research.\n" +

"Mission\n" +

"Build strong foundation in Mechanical Engineering domain complemented with interdisciplinary

skills.\n" +

"Develop state-of-the-art facilities with emphasis on industry interaction, consultancy, research and

innovation.\n" +

"Enable to seek professional employment, pursue higher studies and promote entrepreneurship."

}

ele.containsMatchIn(input=message)->

{

"The Department of Electronics & Communication Engineering was started in the year 1997 with an

intake of 60. Presently the intake of the Undergraduate Program is 180. Undergraduate Program is

accredited 3 times and recent being in the year 2019-20 for 03 years. The Post Graduate M.Tech

Course in VLSI Design & Embedded System was started in the year 2006 with an intake of 18

students.\n" +

"\n" +

"The Department is currently headed by Dr. P M Shivakumarswamy, M. Tech and Ph.D.. The

Department has well-equipped laboratories, Departmental Library, IEEE-JSSATE Student Branch,

ISTE and IETE Student Forum. Department is strengthened by well-qualified faculty members

whose main aim is to make students aware of the cutting-edge technology with competence,

commitment & teamwork. The Department has an excellent infrastructure for both Under Graduate

and Post Graduate Degree with a separate Academic block. Continuous interaction with industries is

established through sponsored projects & industrial visits.\n" +

"\n" +

"Invited lectures are organized regularly in the field of emerging technologies from industry and Academic experts. Also, IEEE technical fest is organized every year to provide a platform for the students to exhibit their talents. Industrial visits are organized as a part of the curriculum. The projects are carried out by the students in industries and the Department, covering all aspects of the Electronics and Communication Engineering field. Soft skills programs are conducted through Placement cell to improve the overall personality development of the students.\n" +

"\n" +

"The department faculty members have published around 175 journals & 150 conference papers. There are 14 faculty members with doctorate and 16 faculty who are pursuing the Ph.D. Two non-teaching staffs' members are pursuing B.E under VTU & other universities.\n" +

"\n" +

"The research and Development Centre of the Electronics & Communication Engineering department was approved in July 2014. The R&D centre carries out fundamental research in selected areas of Power & control engineering, Signal & image processing, VLSI, Communication, Cryptography, Signal and Image Processing, Wireless Sensors Network, Fault Tolerance, Bio-medical Signal Processing, Machine Learning and Deep Learning., The R&D centre has many facilities like computers, internet facility, cadence software & the measuring instruments.\n" +

"\n" +

"Department has a good Alumni network and meet is conducted annually. Parents Teachers Meeting is conducted every semester. The department has excellent placement and around 80% of students are placed in reputed companies with an average package of 5 lakhs. Department has established industry assisted laboratories and the faculty have got funding of 80 lakhs from various funding agencies like VGST, TEQIP, KCTU a few to name.\n"+

"Vision\n" +

"Enable the students to achieve academic excellence at par with premier institutes and to meet the

requirements of industry and research in the field of Electronics and Communication Engineering.\n"

+

"Mission\n" +

"Enable the students to achieve academic excellence at par with premier institutes and to meet the

requirements of industry and research in the field of Electronics and Communication Engineering.\n"

+

"Impart knowledge in the emerging areas through industry-institute interaction, seminars, workshops,

and conferences.\n" +

"Provide a strong foundation in core subjects to enable the students for continuous learning and

research."

}

else->{

"I am sorry...I dont know about this....I promise to be updated the next we meet...\n"+

"Please Contact : Ph: 080 - 2861 2565 / 2861 1702\n" +

"\n" +

"Fax: 080 - 2861 2706 / 2861 2646\n"+

"Email address\n" +

"\n" +

"info@jssateb.ac.in\n" +

"\n" +

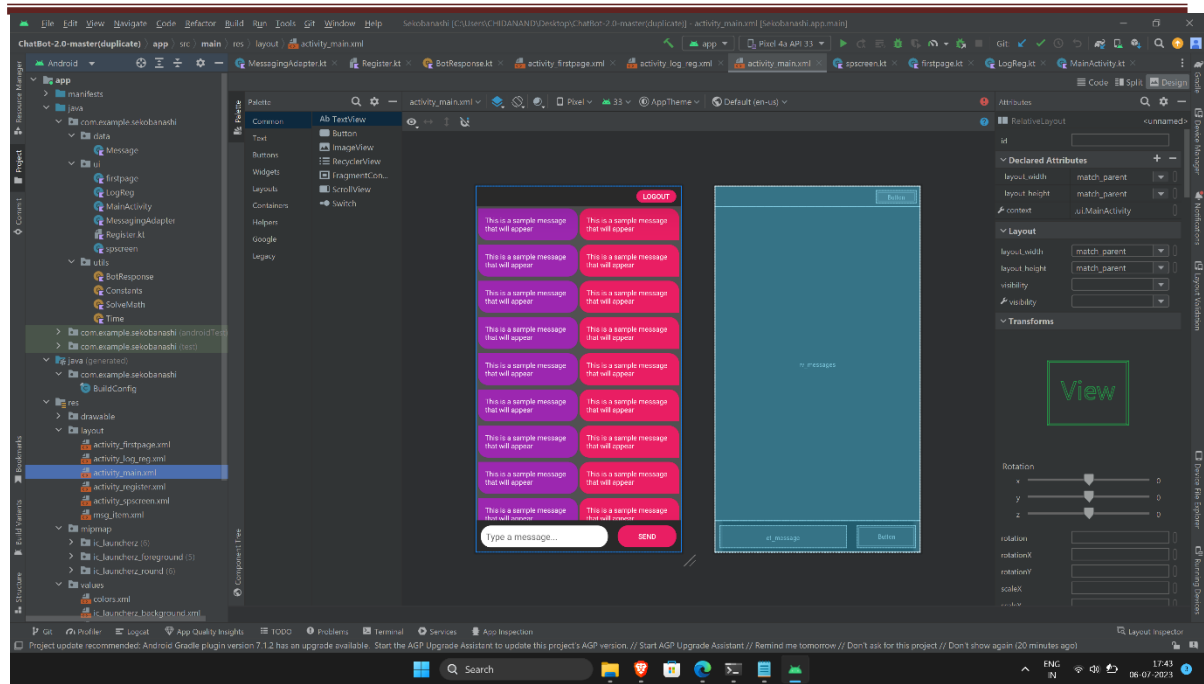"principal@jssateb.ac.in"
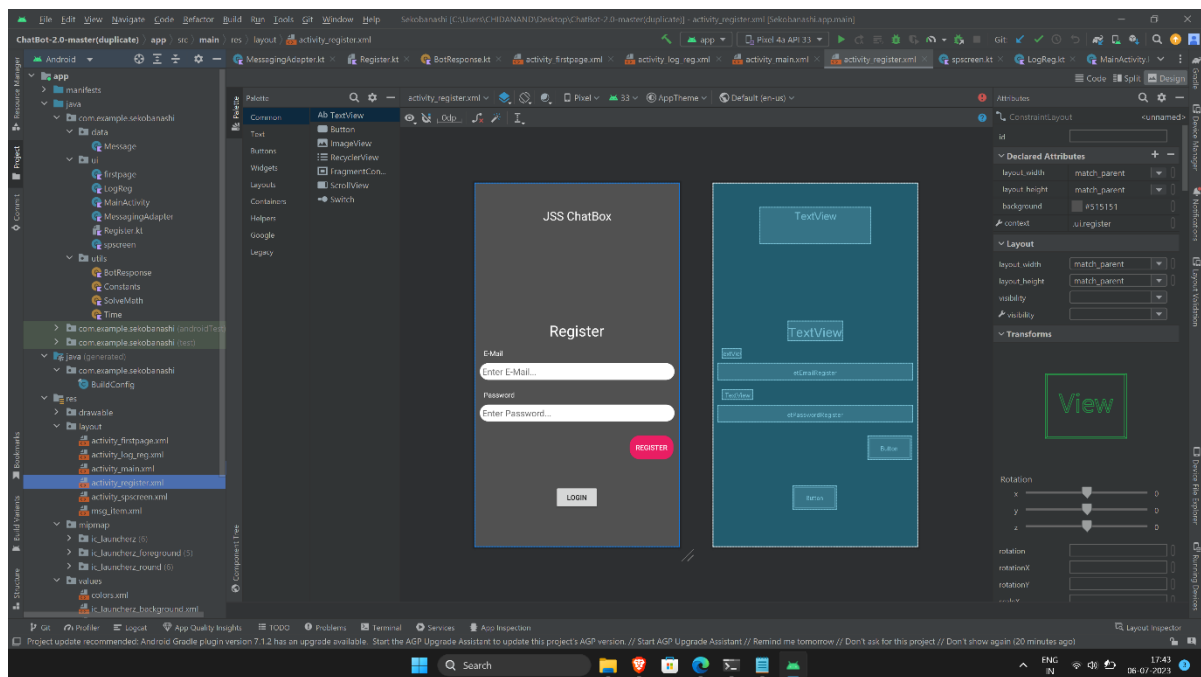
}

{

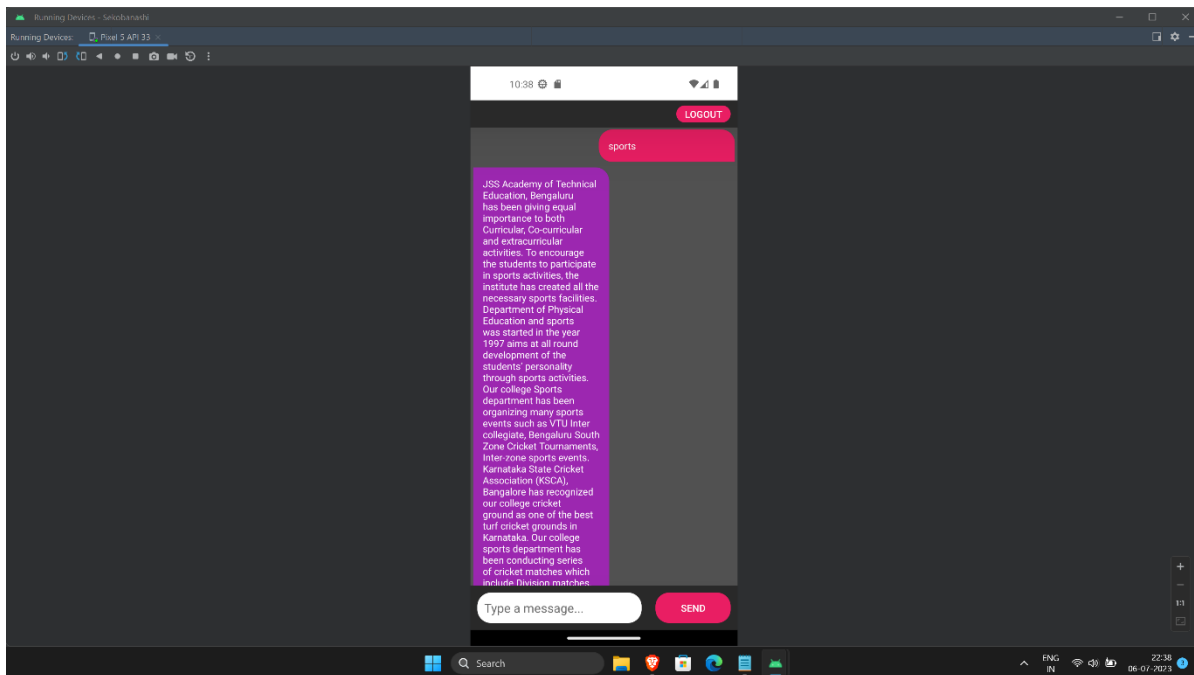## 4.3 XML DESIGN:
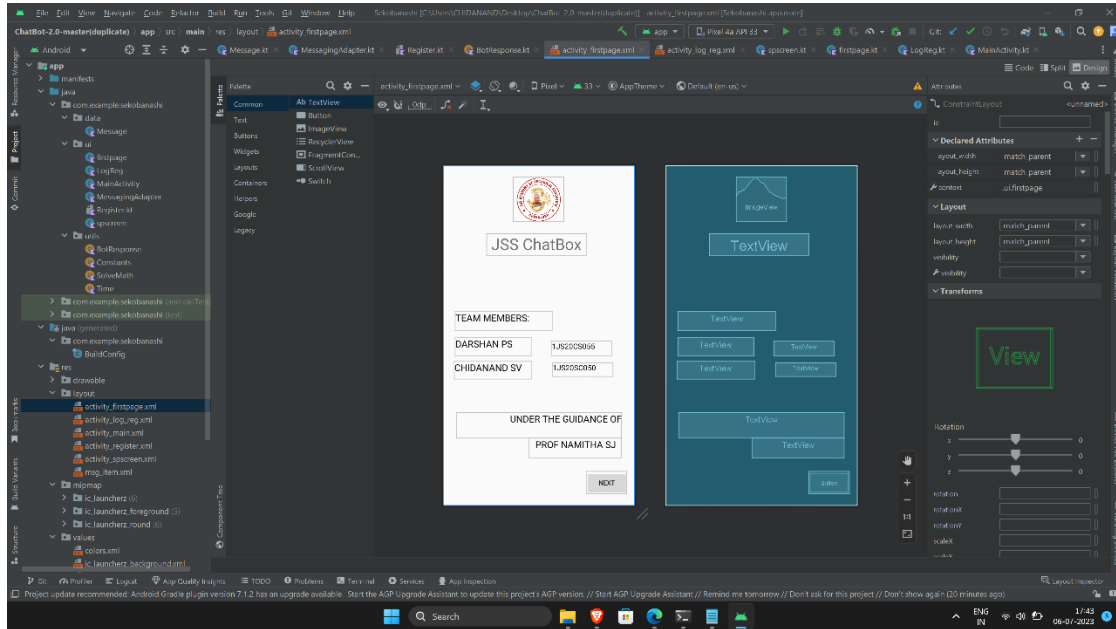
4.1 First page
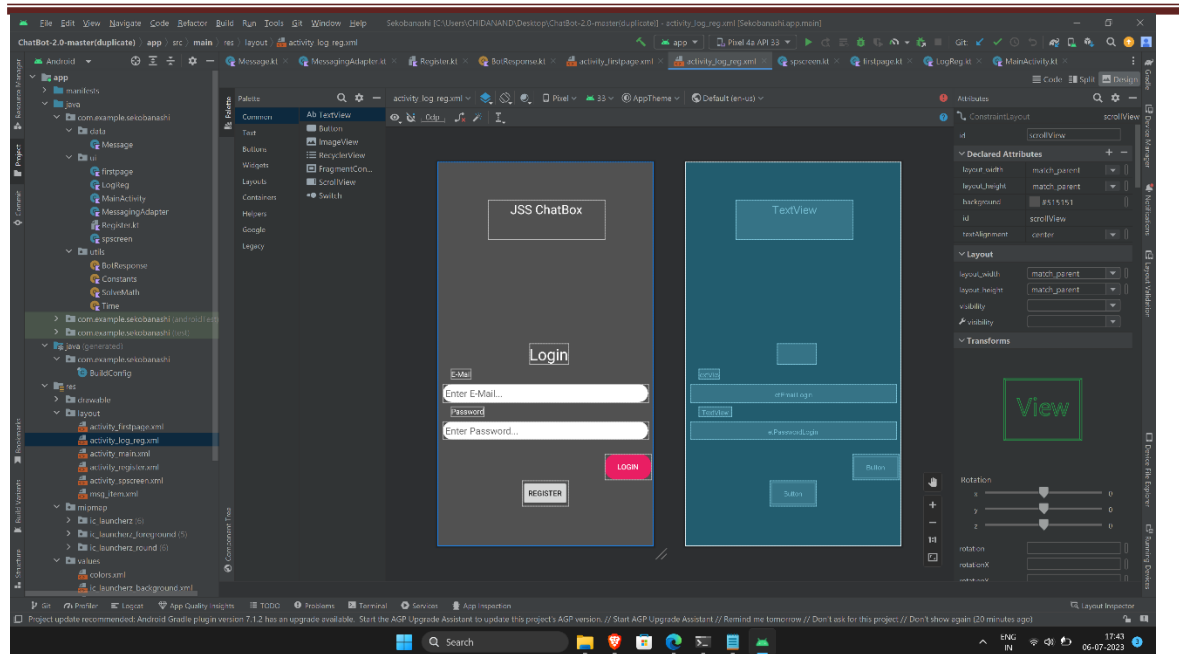
4.2 Login page

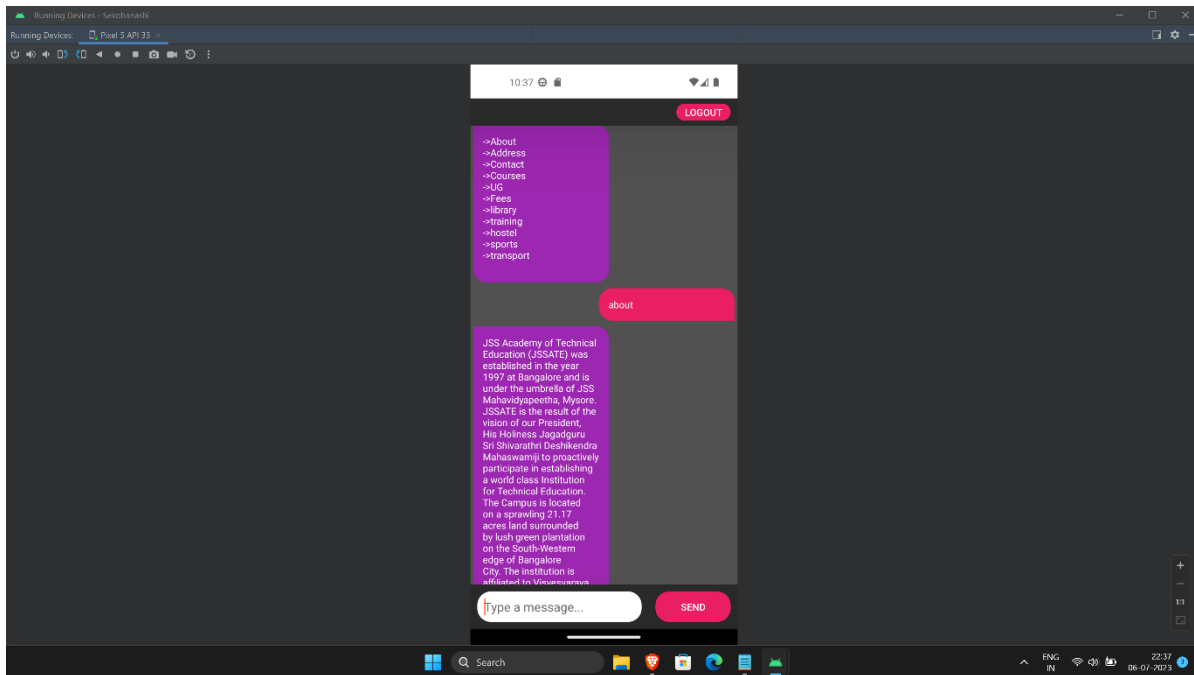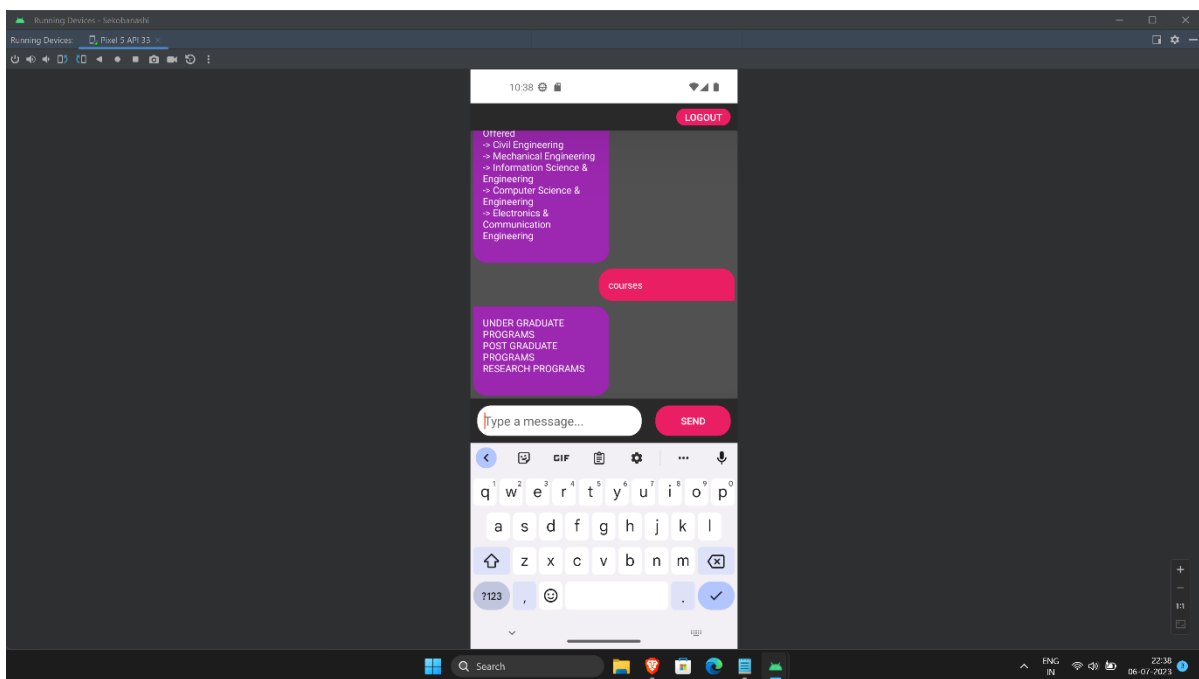**4.3 :Chat box page**

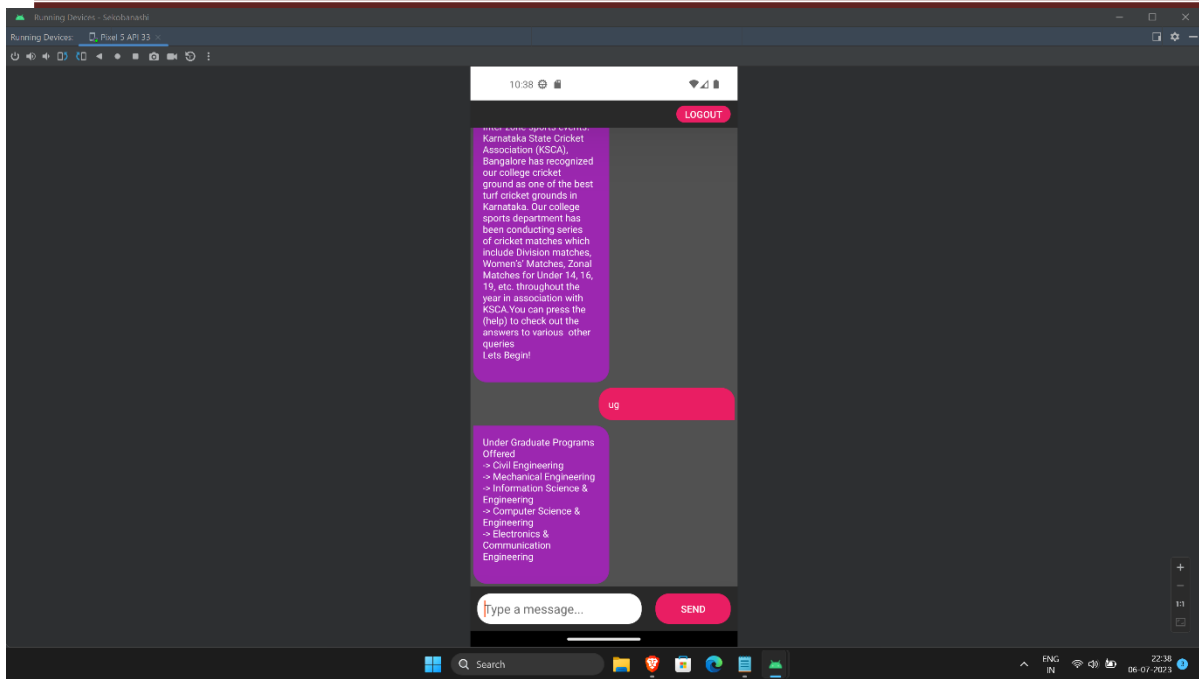**4.4 :Register page**

CHAPTER 5: RESULTS

CONCLUSIONS

The college chat box mobile application offers a comprehensive solution to address the communication, collaboration, and resource sharing needs of college students. Through its user-friendly interface and a range of features, the application aims to empower students, enhance their academic pursuits, and foster a strong sense of community within the college ecosystem.

By providing seamless communication channels, such as one-on-one messaging and group chats, the application bridges the gap between students, facilitating easy and instant interactions. Students can exchange ideas, discuss coursework, seek support, and engage in collaborative projects, fostering a dynamic learning environment.

The file sharing and collaboration features of the application further enhance student productivity and efficiency. By enabling students to share files, documents, and resources within their groups or courses, the app streamlines collaboration, improves project outcomes, and encourages knowledge sharing among peers.

Additionally, the application's event notifications and announcements feature keeps students informed about campus events, deadlines, and club activities. This ensures that students have access to a wealth of opportunities to engage with their college community, participate in extracurricular activities, and make the most of their college experience.

The privacy and security measures incorporated into the application prioritize the protection of user data, ensuring that students can confidently engage in conversations, share files, and connect with their peers in a secure environment.

In conclusion, the college chat box mobile application revolutionizes college communication by providing a comprehensive platform for students to connect, collaborate, and succeed in their academic pursuits. It promotes engagement, knowledge sharing, and community building, contributing to a vibrant and enriching college experience. With its user-centric design and advanced features, the application empowers students, enhances their academic journey, and fosters a sense of

FUTURE ENHANCEMENTS

One potential future enhancement for a college chat box mobile application is the integration of an intelligent chatbot. This chatbot would utilize natural language processing and machine learning algorithms to understand and respond to student queries in a more efficient and accurate manner. It would provide instant answers to frequently asked questions, assist with course selection and scheduling, offer personalized study tips, and even provide real-time updates on campus events and announcements. Additionally, the chatbot could integrate with existing college systems to provide seamless access to student records, course materials, and campus resources. This enhancement would streamline communication, reduce response times, and enhance the overall user experience, making it easier for students to navigate college life and access the information they need, all within the convenience of a mobile app.

REFERENCES

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o https://stackoverflow.com

o https://www.youtube.com

o https://www.udemy.com