

# **CHAT CONNECT – A REAL TIME CHAT AND COMMUNICATION APP**

**Project Presented by**

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## **1. INTRODUCTION:**

### **1.1 OVERVIEW:**

Real time chat is the right tool for any job, and it should be in every customer support agent's repertoire. Our live chat has the fastest chat widget on the market, it's very easy to implement, and it can help you increase your earnings by 48%. Get started with chat conversations and turn website visitors into customers thanks to advanced chat features and proactive communication.

### **1.2 PURPOSE:**

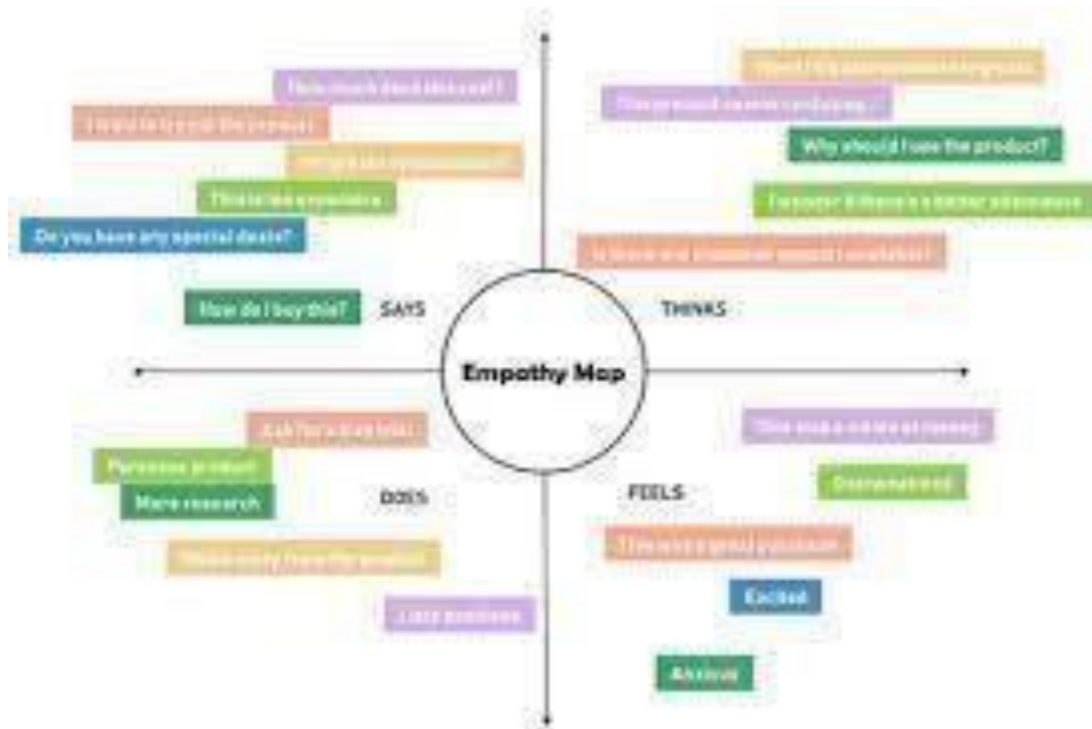
Connect Chat is a real-time messaging tool that enables users to chat with individuals and groups, quickly share files, and collaborate on any record by connecting with the right people instantly.

Connect Chat animates communication around records, Visual Task Boards, topics of interest, or groups of people.

## **2. PROBLEM DEFINITION & DESIGN THINKING**

## 2. PROBLEM DEFINITION & DESIGN THINKING

### EMPATHY MAP:



### BRAINSTORMING MAP:



### 3.RESULT:

### SAMPLE SCREEN:

Type your Message

#### 4. ADVANTAGES AND DISADVANTAGES:

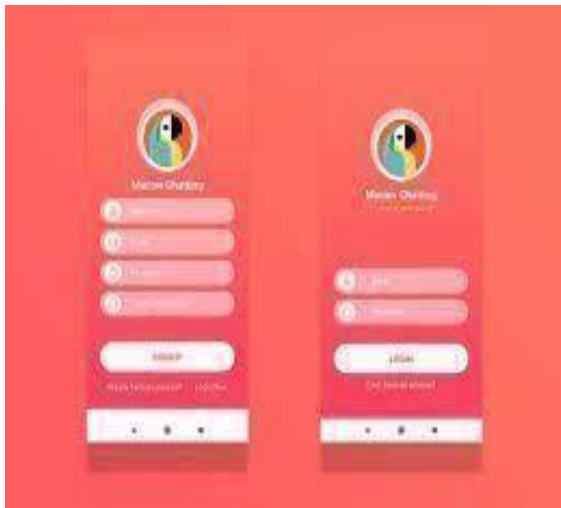
##### ADVANTAGES:

- appreciate different perspectives
- understand the difference between appropriate and inappropriate behaviors
- become more effective non-verbal communicators.

##### DISADVANTAGES:

- You can't be sure other people are being honest or that they are who they say they are.
- If you are feeling vulnerable, people online might try to take advantage of you.
- Building relationships online can result in your spending less time with friends and family.

#### 5. APPLICATIONS:



A chat application **makes it easy to communicate with people anywhere in the world by sending and receiving messages in real time.** With a web or mobile chat app, users are able to receive the same engaging and lively interactions through custom messaging features, just as they would in person.

## **6.CONCLUTION:**

You did it! You learned realtime and several techniques you can use to go about doing realtime communication. Before we wrap up, I want to talk about a few additional pieces of connections you can do that we didn't talk about.

## **7.FUTURE SCOPE:**

Enhancement that can be made in the future.

With the knowledge I have gained by developing this application, I am confident that in the future I can make the application more effective by adding these services.

- Extending this application by providing Authorization service.
- Creating Database and maintaining users.
- Increasing the effectiveness of the application by providing Voice Chat.
- Extending it to Web Support.

## **8.Appendix:**

# **SOURCE CODE:**

## AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.project.pradyotprakash.flashchat">

    <uses-permission android:name="android.permission.INTERNET"/>

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.FlashChat">
        <activity
            android:name=".MainActivity"
            android:exported="true"
            android:label="@string/app_name"
            android:theme="@style/Theme.FlashChat.NoActionBar">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

## Navigation.kt

```
package com.project.pradyotprakash.flashchat.nav

import androidx.navigation.NavHostController
import com.project.pradyotprakash.flashchat.nav.Destination.Home
import com.project.pradyotprakash.flashchat.nav.Destination.Login
import com.project.pradyotprakash.flashchat.nav.Destination.Register

/**
 * A set of destination used in the whole application
 */
object Destination {
    const val AuthenticationOption = "authenticationOption"
    const val Register = "register"
    const val Login = "login"
    const val Home = "home"
}

/**
 * Set of routes which will be passed to different composable so that
 * the routes which are required can be taken.
 */
class Action(navController: NavHostController) {
    val home: () -> Unit = {
        navController.navigate(Home) {
            popUpTo(Login) {
                inclusive = true
            }
            popUpTo(Register) {
                inclusive = true
            }
        }
    }
}
```

```

        }
    }
}
val login: () -> Unit = { navController.navigate(Login) }
val register: () -> Unit = { navController.navigate(Register) }
val navigateBack: () -> Unit = { navController.popBackStack() }
}

```

## Color.kt

```
package com.project.pradyotprakash.flashchat.ui.theme
```

```
import androidx.compose.ui.graphics.Color
```

```

val Purple200 = Color(0xFFBB86FC)
val Purple500 = Color(0xFF6200EE)
val Purple700 = Color(0xFF3700B3)
val Teal200 = Color(0xFF03DAC5)

```

## Shape.kt

```
package com.project.pradyotprakash.flashchat.ui.theme
```

```

import androidx.compose.foundation.shape.RoundedCornerShape
import androidx.compose.material.Shapes
import androidx.compose.ui.unit.dp

```

```

val Shapes = Shapes(
    small = RoundedCornerShape(4.dp),
    medium = RoundedCornerShape(4.dp),
    large = RoundedCornerShape(0.dp)
)

```

## Theme.kt

```
package com.project.pradyotprakash.flashchat.ui.theme
```

```

import androidx.compose.foundation.isSystemInDarkTheme
import androidx.compose.material.MaterialTheme
import androidx.compose.material.darkColors
import androidx.compose.material.lightColors
import androidx.compose.runtime.Composable

```

```

private val DarkColorPalette = darkColors(
    primary = Purple200,
    primaryVariant = Purple700,
    secondary = Teal200
)

```

```

private val LightColorPalette = lightColors(
    primary = Purple500,
    primaryVariant = Purple700,
    secondary = Teal200
)

```

```
@Composable
```

```
fun FlashChatTheme(darkTheme: Boolean = isSystemInDarkTheme(), content:
```

```

@Composable() () -> Unit) {
    val colors = if (darkTheme) {
        DarkColorPalette
    } else {
        LightColorPalette
    }
}

```

```

    }

    MaterialTheme(
        colors = colors,
        typography = Typography,
        shapes = Shapes,
        content = content
    )
}

```

## Type.kt

```
package com.project.pradyotprakash.flashchat.ui.theme
```

```

import androidx.compose.material.Typography
import androidx.compose.ui.text.TextStyle
import androidx.compose.ui.text.font.FontFamily
import androidx.compose.ui.text.font.FontWeight
import androidx.compose.ui.unit.sp

/**
 * Set of Material typography styles to start with
 */
val Typography = Typography(
    body1 = TextStyle(
        fontFamily = FontFamily.Default,
        fontWeight = FontWeight.Normal,
        fontSize = 16.sp
    )
)

```

## Home.kt

```
package com.project.pradyotprakash.flashchat.view.home
```

```

import androidx.compose.foundation.background
import androidx.compose.foundation.layout.*
import androidx.compose.foundation.lazy.LazyColumn
import androidx.compose.foundation.lazy.items
import androidx.compose.foundation.text.KeyboardOptions
import androidx.compose.material.*
import androidx.compose.material.icons.Icons
import androidx.compose.material.icons.filled.Send
import androidx.compose.runtime.Composable
import androidx.compose.runtime.getValue
import androidx.compose.runtime.livedata.observeAsState
import androidx.compose.ui.Alignment
import androidx.compose.ui.Modifier
import androidx.compose.ui.graphics.Color
import androidx.compose.ui.text.input.KeyboardType
import androidx.compose.ui.unit.dp
import androidx.lifecycle.viewmodel.compose.viewModel
import com.project.pradyotprakash.flashchat.Constants
import com.project.pradyotprakash.flashchat.view.SingleMessage

/**
 * The home view which will contain all the code related to the view for HOME.
 *
 * Here we will show the list of chat messages sent by user.
 * And also give an option to send a message and logout.
 */

```



```

@Composable
fun HomeView(
    homeViewModel: HomeViewModel = viewModel()
) {
    val message: String by homeViewModel.message.observeAsState(initial = "")
    val messages: List<Map<String, Any>> by
homeViewModel.messages.observeAsState(
    initial = emptyList<Map<String, Any>>().toMutableList()
)

    Column(
        modifier = Modifier.fillMaxSize(),
        horizontalAlignment = Alignment.CenterHorizontally,
        verticalArrangement = Arrangement.Bottom
    ) {
        LazyColumn(
            modifier = Modifier
                .fillMaxWidth()
                .weight(weight = 0.85f, fill = true),
            contentPadding = PaddingValues(horizontal = 16.dp, vertical =
8.dp),
            verticalArrangement = Arrangement.spacedBy(4.dp),
            reverseLayout = true
        ) {
            items(messages) { message ->
                val isCurrentUser = message[Constants.IS_CURRENT_USER] as
Boolean

                SingleMessage(
                    message = message[Constants.MESSAGE].toString(),
                    isCurrentUser = isCurrentUser
                )
            }
        }
        OutlinedTextField(
            value = message,
            onValueChange = {
                homeViewModel.updateMessage(it)
            },
            label = {
                Text(
                    "Type Your Message"
                )
            },
            maxLines = 1,
            modifier = Modifier
                .padding(horizontal = 15.dp, vertical = 1.dp)
                .fillMaxWidth()
                .weight(weight = 0.09f, fill = true),
            keyboardOptions = KeyboardOptions(
                keyboardType = KeyboardType.Text
            ),
            singleLine = true,
            trailingIcon = {
                IconButton(
                    onClick = {
                        homeViewModel.addMessage()
                    }
                ) {
                    Icon(
                        imageVector = Icons.Default.Send,
                        contentDescription = "Send Button"
                    )
                }
            }
        )
    }
}

```

```

        )
    }
}
)
}
}

```

## HomeViewModel.kt

```
package com.project.pradyotprakash.flashchat.view.home
```

```

import android.util.Log
import androidx.lifecycle.LiveData
import androidx.lifecycle.MutableLiveData
import androidx.lifecycle.ViewModel
import com.google.firebase.auth.ktx.auth
import com.google.firebase.firestore.ktx.firestore
import com.google.firebase.ktx.Firebase
import com.project.pradyotprakash.flashchat.Constants
import java.lang.IllegalArgumentException

```

```

/**
 * Home view model which will handle all the logic related to HomeView
 */
class HomeViewModel : ViewModel() {
    init {
        getMessages()
    }

    private val _message = MutableLiveData("")
    val message: LiveData<String> = _message

    private var _messages = MutableLiveData(emptyList<Map<String,
Any>>().toMutableList())
    val messages: LiveData<MutableList<Map<String, Any>>> = _messages

    /**
     * Update the message value as user types
     */
    fun updateMessage(message: String) {
        _message.value = message
    }

    /**
     * Send message
     */
    fun addMessage() {
        val message: String = _message.value ?: throw
        IllegalArgumentException("message empty")
        if (message.isNotEmpty()) {
            Firebase.firestore.collection(Constants.MESSAGES).document().set(
                hashMapOf(
                    Constants.MESSAGE to message,
                    Constants.SENT_BY to Firebase.auth.currentUser?.uid,
                    Constants.SENT_ON to System.currentTimeMillis()
                )
            ).addOnSuccessListener {
                _message.value = ""
            }
        }
    }
}

```

```

/**
 * Get the messages
 */
private fun getMessages() {
    Firebase.firestore.collection(Constants.MESSAGES)
        .orderBy(Constants.SENT_ON)
        .addSnapshotListener { value, e ->
            if (e != null) {
                Log.w(Constants.TAG, "Listen failed.", e)
                return@addSnapshotListener
            }

            val list = emptyList<Map<String, Any>>().toMutableList()

            if (value != null) {
                for (doc in value) {
                    val data = doc.data
                    data[Constants.IS_CURRENT_USER] =
                        Firebase.auth.currentUser?.uid.toString() ==
data[Constants.SENT_BY].toString()

                    list.add(data)
                }
            }

            updateMessages(list)
        }
}

/**
 * Update the list after getting the details from firestore
 */
private fun updateMessages(list: MutableList<Map<String, Any>>) {
    _messages.value = list.asReversed()
}
}

```

## Login.kt

```
package com.project.pradyotprakash.flashchat.view.login
```

```

import androidx.compose.foundation.layout.*
import androidx.compose.material.CircularProgressIndicator
import androidx.compose.runtime.Composable
import androidx.compose.runtime.getValue
import androidx.compose.runtime.livedata.observeAsState
import androidx.compose.ui.Alignment
import androidx.compose.ui.Modifier
import androidx.compose.ui.graphics.Color
import androidx.compose.ui.text.input.KeyboardType
import androidx.compose.ui.text.input.PasswordVisualTransformation
import androidx.compose.ui.text.input.VisualTransformation
import androidx.compose.ui.unit.dp
import androidx.lifecycle.viewmodel.compose.viewModel
import com.project.pradyotprakash.flashchat.view.Appbar
import com.project.pradyotprakash.flashchat.view.Buttons
import com.project.pradyotprakash.flashchat.view.TextFormField

```

```

/**
 * The login view which will help the user to authenticate themselves and go to
the
 * home screen to show and send messages to others.

```

```

*/

@Composable
fun LoginView(
    home: () -> Unit,
    back: () -> Unit,
    loginViewModel: LoginViewModel = viewModel()
) {
    val email: String by loginViewModel.email.observeAsState("")
    val password: String by loginViewModel.password.observeAsState("")
    val loading: Boolean by loginViewModel.loading.observeAsState(initial = false)

    Box(
        contentAlignment = Alignment.Center,
        modifier = Modifier.fillMaxSize()
    ) {
        if (loading) {
            CircularProgressIndicator()
        }
        Column(
            modifier = Modifier.fillMaxSize(),
            horizontalAlignment = Alignment.CenterHorizontally,
            verticalArrangement = Arrangement.Top
        ) {
            AppBar(
                title = "Login",
                action = back
            )
            TextFormField(
                value = email,
                onValueChange = { loginViewModel.updateEmail(it) },
                label = "Email",
                keyboardType = KeyboardType.Email,
                visualTransformation = VisualTransformation.None
            )
            TextFormField(
                value = password,
                onValueChange = { loginViewModel.updatePassword(it) },
                label = "Password",
                keyboardType = KeyboardType.Password,
                visualTransformation = PasswordVisualTransformation()
            )
            Spacer(modifier = Modifier.height(20.dp))
            Buttons(
                title = "Login",
                onClick = { loginViewModel.loginUser(home = home) },
                backgroundColor = Color.Magenta
            )
        }
    }
}

```

## LoginViewModel.kt

```
package com.project.pradyotprakash.flashchat.view.login
```

```

import androidx.lifecycle.LiveData
import androidx.lifecycle.MutableLiveData
import androidx.lifecycle.ViewModel
import com.google.firebase.auth.FirebaseAuth
import com.google.firebase.auth.ktx.auth

```

```

import com.google.firebase.ktx.Firebase
import java.lang.IllegalArgumentException

/**
 * View model for the login view.
 */
class LoginViewModel : ViewModel() {
    private val auth: FirebaseAuth = Firebase.auth

    private val _email = MutableLiveData("")
    val email: LiveData<String> = _email

    private val _password = MutableLiveData("")
    val password: LiveData<String> = _password

    private val _loading = MutableLiveData(false)
    val loading: LiveData<Boolean> = _loading

    // Update email
    fun updateEmail(newEmail: String) {
        _email.value = newEmail
    }

    // Update password
    fun updatePassword(newPassword: String) {
        _password.value = newPassword
    }

    // Register user
    fun loginUser(home: () -> Unit) {
        if (_loading.value == false) {
            val email: String = _email.value ?: throw
IllegalArgumentException("email expected")
            val password: String =
                _password.value ?: throw IllegalArgumentException("password
expected")

            _loading.value = true

            auth.signInWithEmailAndPassword(email, password)
                .addOnCompleteListener {
                    if (it.isSuccessful) {
                        home()
                    }
                    _loading.value = false
                }
        }
    }
}

```

## Register.kt

```

package com.project.pradyotprakash.flashchat.view.register

```

```

import androidx.compose.foundation.layout.*
import androidx.compose.material.CircularProgressIndicator
import androidx.compose.runtime.Composable
import androidx.compose.runtime.getValue
import androidx.compose.runtime.livedata.observeAsState
import androidx.compose.ui.Alignment
import androidx.compose.ui.Modifier
import androidx.compose.ui.graphics.Color

```

```

import androidx.compose.ui.text.input.KeyboardType
import androidx.compose.ui.text.input.PasswordVisualTransformation
import androidx.compose.ui.text.input.VisualTransformation
import androidx.compose.ui.unit.dp
import androidx.lifecycle.viewmodel.compose.viewModel
import com.project.pradyotprakash.flashchat.view.Appbar
import com.project.pradyotprakash.flashchat.view.Buttons
import com.project.pradyotprakash.flashchat.view.TextFormField

/**
 * The Register view which will be helpful for the user to register themselves
 * into
 * our database and go to the home screen to see and send messages.
 */

@Composable
fun RegisterView(
    home: () -> Unit,
    back: () -> Unit,
    registerViewModel: RegisterViewModel = viewModel()
) {
    val email: String by registerViewModel.email.observeAsState("")
    val password: String by registerViewModel.password.observeAsState("")
    val loading: Boolean by registerViewModel.loading.observeAsState(initial = false)

    Box(
        contentAlignment = Alignment.Center,
        modifier = Modifier.fillMaxSize()
    ) {
        if (loading) {
            CircularProgressIndicator()
        }
        Column(
            modifier = Modifier.fillMaxSize(),
            horizontalAlignment = Alignment.CenterHorizontally,
            verticalArrangement = Arrangement.Top
        ) {
            {
                Appbar(
                    title = "Register",
                    action = back
                )
                TextFormField(
                    value = email,
                    onChange = { registerViewModel.updateEmail(it) },
                    label = "Email",
                    keyboardType = KeyboardType.Email,
                    visualTransformation = VisualTransformation.None
                )
                TextFormField(
                    value = password,
                    onChange = { registerViewModel.updatePassword(it) },
                    label = "Password",
                    keyboardType = KeyboardType.Password,
                    visualTransformation = PasswordVisualTransformation()
                )
                Spacer(modifier = Modifier.height(20.dp))
                Buttons(
                    title = "Register",
                    onClick = { registerViewModel.registerUser(home = home) },
                    backgroundColor = Color.Blue
                )
            }
        }
    }
}

```

```

    }
}
}

```

## Register.kt

```

package com.project.pradyotprakash.flashchat.view.register

import androidx.compose.foundation.layout.*
import androidx.compose.material.CircularProgressIndicator
import androidx.compose.runtime.Composable
import androidx.compose.runtime.getValue
import androidx.compose.runtime.livedata.observeAsState
import androidx.compose.ui.Alignment
import androidx.compose.ui.Modifier
import androidx.compose.ui.graphics.Color
import androidx.compose.ui.text.input.KeyboardType
import androidx.compose.ui.text.input.PasswordVisualTransformation
import androidx.compose.ui.text.input.VisualTransformation
import androidx.compose.ui.unit.dp
import androidx.lifecycle.viewmodel.compose.viewModel
import com.project.pradyotprakash.flashchat.view.Appbar
import com.project.pradyotprakash.flashchat.view.Buttons
import com.project.pradyotprakash.flashchat.view.TextFormField

/**
 * The Register view which will be helpful for the user to register themselves
 * into
 * our database and go to the home screen to see and send messages.
 */

@Composable
fun RegisterView(
    home: () -> Unit,
    back: () -> Unit,
    registerViewModel: RegisterViewModel = viewModel()
) {
    val email: String by registerViewModel.email.observeAsState("")
    val password: String by registerViewModel.password.observeAsState("")
    val loading: Boolean by registerViewModel.loading.observeAsState(initial = false)

    Box(
        contentAlignment = Alignment.Center,
        modifier = Modifier.fillMaxSize()
    ) {
        if (loading) {
            CircularProgressIndicator()
        }
        Column(
            modifier = Modifier.fillMaxSize(),
            horizontalAlignment = Alignment.CenterHorizontally,
            verticalArrangement = Arrangement.Top
        ) {
            Appbar(
                title = "Register",
                action = back
            )
            TextFormField(
                value = email,
                onChange = { registerViewModel.updateEmail(it) },
                label = "Email",

```

```

        keyboardType = KeyboardType.Email,
        visualTransformation = VisualTransformation.None
    )
    TextFormField(
        value = password,
        onChange = { registerViewModel.updatePassword(it) },
        label = "Password",
        keyboardType = KeyboardType.Password,
        visualTransformation = PasswordVisualTransformation()
    )
    Spacer(modifier = Modifier.height(20.dp))
    Buttons(
        title = "Register",
        onClick = { registerViewModel.registerUser(home = home) },
        backgroundColor = Color.Blue
    )
}
}
}

```

## RegisterViewModel.kt

```
package com.project.pradyotprakash.flashchat.view.register
```

```

import androidx.lifecycle.LiveData
import androidx.lifecycle.MutableLiveData
import androidx.lifecycle.ViewModel
import com.google.firebase.auth.FirebaseAuth
import com.google.firebase.auth.ktx.auth
import com.google.firebase.ktx.Firebase
import java.lang.IllegalArgumentException

/**
 * View model for the login view.
 */
class RegisterViewModel : ViewModel() {
    private val auth: FirebaseAuth = Firebase.auth

    private val _email = MutableLiveData("")
    val email: LiveData<String> = _email

    private val _password = MutableLiveData("")
    val password: LiveData<String> = _password

    private val _loading = MutableLiveData(false)
    val loading: LiveData<Boolean> = _loading

    // Update email
    fun updateEmail(newEmail: String) {
        _email.value = newEmail
    }

    // Update password
    fun updatePassword(newPassword: String) {
        _password.value = newPassword
    }

    // Register user
    fun registerUser(home: () -> Unit) {
        if (_loading.value == false) {
            val email: String = _email.value ?: throw
IllegalArgumentException("email expected")

```



```

        val password: String =
            _password.value ?: throw IllegalArgumentException("password
expected")

        _loading.value = true

        auth.createUserWithEmailAndPassword(email, password)
            .addOnCompleteListener {
                if (it.isSuccessful) {
                    home()
                }
                _loading.value = false
            }
    }
}

```

## AuthndicationOption.kt

```
package com.project.pradyotprakash.flashchat.view
```

```

import androidx.compose.foundation.layout.Arrangement
import androidx.compose.foundation.layout.Column
import androidx.compose.foundation.layout.fillMaxHeight
import androidx.compose.foundation.layout.fillMaxWidth
import androidx.compose.foundation.shape.RoundedCornerShape
import androidx.compose.material.*
import androidx.compose.runtime.Composable
import androidx.compose.ui.Alignment
import androidx.compose.ui.Modifier
import androidx.compose.ui.graphics.Color
import com.project.pradyotprakash.flashchat.ui.theme.FlashChatTheme

/**
 * The authentication view which will give the user an option to choose between
 * login and register.
 */

@Composable
fun AuthenticationView(register: () -> Unit, login: () -> Unit) {
    FlashChatTheme {
        // A surface container using the 'background' color from the theme
        Surface(color = MaterialTheme.colors.background) {
            Column(
                modifier = Modifier
                    .fillMaxWidth()
                    .fillMaxHeight(),
                horizontalAlignment = Alignment.CenterHorizontally,
                verticalArrangement = Arrangement.Bottom
            ) {
                Title(title = "❏ Chat Connect")
                Buttons(title = "Register", onClick = register, backgroundColor
= Color.Blue)
                Buttons(title = "Login", onClick = login, backgroundColor =
Color.Magenta)
            }
        }
    }
}

```

## Widgets.kt

```

package com.project.pradyotprakash.flashchat.view

import androidx.compose.foundation.layout.fillMaxHeight
import androidx.compose.foundation.layout.fillMaxWidth
import androidx.compose.foundation.layout.padding
import androidx.compose.foundation.shape.RoundedCornerShape
import androidx.compose.foundation.text.KeyboardOptions
import androidx.compose.material.*
import androidx.compose.material.icons.Icons
import androidx.compose.material.icons.filled.ArrowBack
import androidx.compose.runtime.Composable
import androidx.compose.ui.Modifier
import androidx.compose.ui.graphics.Color
import androidx.compose.ui.text.font.FontWeight
import androidx.compose.ui.text.input.KeyboardType
import androidx.compose.ui.text.input.VisualTransformation
import androidx.compose.ui.text.style.TextAlign
import androidx.compose.ui.unit.dp
import androidx.compose.ui.unit.sp
import com.project.pradyotprakash.flashchat.Constants

/**
 * Set of widgets/views which will be used throughout the application.
 * This is used to increase the code usability.
 */

@Composable
fun Title(title: String) {
    Text(
        text = title,
        fontSize = 30.sp,
        fontWeight = FontWeight.Bold,
        modifier = Modifier.fillMaxHeight(0.5f)
    )
}

// Different set of buttons in this page
@Composable
fun Buttons(title: String, onClick: () -> Unit, backgroundColor: Color) {
    Button(
        onClick = onClick,
        colors = ButtonDefaults.buttonColors(
            backgroundColor = backgroundColor,
            contentColor = Color.White
        ),
        modifier = Modifier.fillMaxWidth(),
        shape = RoundedCornerShape(0),
    ) {
        Text(
            text = title
        )
    }
}

@Composable
fun AppBar(title: String, action: () -> Unit) {
    TopAppBar(
        title = {
            Text(text = title)
        },
        navigationIcon = {
            IconButton(

```

```

        onClick = action
    ) {
        Icon(
            imageVector = Icons.Filled.ArrowBack,
            contentDescription = "Back button"
        )
    }
}
)
}

```

**@Composable**

```

fun TextFormField(value: String, onValueChange: (String) -> Unit, label:
String, keyboardType: KeyboardType, visualTransformation: VisualTransformation)
{
    OutlinedTextField(
        value = value,
        onValueChange = onValueChange,
        label = {
            Text(
                label
            )
        },
        maxLines = 1,
        modifier = Modifier
            .padding(horizontal = 20.dp, vertical = 5.dp)
            .fillMaxWidth(),
        keyboardOptions = KeyboardOptions(
            keyboardType = keyboardType
        ),
        singleLine = true,
        visualTransformation = visualTransformation
    )
}

```

**@Composable**

```

fun SingleMessage(message: String, isCurrentUser: Boolean) {
    Card(
        shape = RoundedCornerShape(16.dp),
        backgroundColor = if (isCurrentUser) MaterialTheme.colors.primary else
Color.White
    ) {
        Text(
            text = message,
            textAlign =
if (isCurrentUser)
                TextAlign.End
            else
                TextAlign.Start,
            modifier = Modifier.fillMaxWidth().padding(16.dp),
            color = if (!isCurrentUser) MaterialTheme.colors.primary else
Color.White
        )
    }
}

```

## Constants.kt

**package** com.project.pradyotprakash.flashchat

```

object Constants {
    const val TAG = "flash-chat"
}

```

```

    const val MESSAGES = "messages"
    const val MESSAGE = "message"
    const val SENT_BY = "sent_by"
    const val SENT_ON = "sent_on"
    const val IS_CURRENT_USER = "is_current_user"
}

```

## MainActivity.kt

```
package com.project.pradyotprakash.flashchat
```

```

import android.os.Bundle
import androidx.activity.ComponentActivity
import androidx.activity.compose.setContent
import com.google.firebase.FirebaseApp

```

```

/**
 * The initial point of the application from where it gets started.
 *
 * Here we do all the initialization and other things which will be required
 * thought out the application.
 */
class MainActivity : ComponentActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        FirebaseApp.initializeApp(this)
        setContent {
            NavComposeApp()
        }
    }
}

```

## NavComposeApp.kt

```
package com.project.pradyotprakash.flashchat
```

```

import androidx.compose.runtime.Composable
import androidx.compose.runtime.remember
import androidx.navigation.compose.NavHost
import androidx.navigation.compose.composable
import androidx.navigation.compose.rememberNavController
import com.google.firebase.auth.FirebaseAuth
import com.project.pradyotprakash.flashchat.nav.Action
import com.project.pradyotprakash.flashchat.nav.Destination.AuthenticationOption
import com.project.pradyotprakash.flashchat.nav.Destination.Home
import com.project.pradyotprakash.flashchat.nav.Destination.Login
import com.project.pradyotprakash.flashchat.nav.Destination.Register
import com.project.pradyotprakash.flashchat.ui.theme.FlashChatTheme
import com.project.pradyotprakash.flashchat.view.AuthenticationView
import com.project.pradyotprakash.flashchat.view.home.HomeView
import com.project.pradyotprakash.flashchat.view.login.LoginView
import com.project.pradyotprakash.flashchat.view.register.RegisterView

```

```

/**
 * The main Navigation composable which will handle all the navigation stack.
 */

```

```

@Composable
fun NavComposeApp() {
    val navController = rememberNavController()
}

```

```

val actions = remember(navController) { Action(navController) }
FlashChatTheme {
    NavHost(
        navController = navController,
        startDestination =
        if (FirebaseAuth.getInstance().currentUser != null)
            Home
        else
            AuthenticationOption
    ) {
        composable(AuthenticationOption) {
            AuthenticationView(
                register = actions.register,
                login = actions.login
            )
        }
        composable(Register) {
            RegisterView(
                home = actions.home,
                back = actions.navigateBack
            )
        }
        composable(Login) {
            LoginView(
                home = actions.home,
                back = actions.navigateBack
            )
        }
        composable(Home) {
            HomeView()
        }
    }
}
}

```

-----THE END-----

