**Task Report – (Aniket)**



**Task**: Creating UI MockUp Screens and UI Flow.

**Challenges/Hurdles:** One significant hurdle I encountered was translating verbally stated requirements into practical implementation, particularly in the realm of UI/UX design. Due to my lack of experience and training in this area, I faced challenges in conceptualizing and effectively executing the desired user interface and experience.   
  
**Strategies and Actions Taken to Overcome:** To address these challenges, I proactively explored existing apps within the same domain that featured similar functionalities as required. By analysing their high-level requirements and low-level functionalities, I gained valuable insights into how these elements were integrated. This process required considerable thought and consideration. Additionally, I dedicated time to self-learning by studying online tutorials and relevant resources to enhance my understanding of UI/UX principles. As I recognized the need of learning a suitable design tool. After careful research, I chose to acquire proficiency in Figma, a widely used platform for creating app screens, flows and prototypes. After exploring Figma as I gained confidence in the tool, I started creating the screens for the app.

1. **Task**: Creating Android Screens with Limited Functionality (using XML and Java).

**Challenges/Hurdles: Major** challenge was implementing BottomNavigationView Component.

**Error**: Constant Expression Required Error in Binding Different Fragments.

**Fix**: R.id using in the switch statement are declared as final or effectively final variables.

For example, if you're using a variable int sampleId = R.id.sample; as a case label, make sure it is declared as final int sampleId = R.id.sample;  
  
**Error**: Cannot resolve symbol getItemId() method cannot be found or recognized for the menuItem.

**Fix**: Adding the import statement for the MenuItem class, import android.view.MenuItem;

Implementing below code,

ActivityMainBinding binding = ActivityMainBinding.inflate(getLayoutInflater());

BottomNavigationView bottomNavigationView = binding.bottomNavigationView;

binding.bottomNavigationView.setOnItemSelectedListener((MenuItem menuItem) -> {

int itemId = menuItem.getItemId();

Adding the import statement for the MenuItem class, import android.view.MenuItem;

**Error:** java.lang.NullPointerException: Can't toast on a thread that has not called Looper.prepare()

**Fix**: After registering the user on a separate thread, the runOnUiThread method is used to display the Toast message. This ensures that the UI-related operation (showing the Toast) is executed on the main thread, which is allowed to interact with the UI components.

1. **Task**: Creating DataBase and Table and Simultaneously Implementing the Functionality of Login/Register, View Profile, Forgot Password (Integrating XML, Java, Room Library (SQLite DataBase).

**Challenges/Hurdles: Major** challenge was implementing ViewProfile for Logged In User.

**Error:** java.lang.NullPointerException: Attempt to invoke virtual method 'void android.content.Intent.putExtra(java.lang.String, android.os.Bundle)' on a null object reference at com.example.LoginActivity.onCreate(LoginActivity.java:25)

**LoginActivity**

Intent mainIntent = new Intent(LoginActivity.this, MainActivity.class);

mainIntent.putExtra("username", userName);

startActivity(mainIntent);

finish();

**MainActivity**

String username = mainActivity.getUsername();

Bundle args = new Bundle();

args.putString("username", username);

profileFragment.setArguments(args);

String username = getArguments().getString("username");

**Fix**: SharedPreferences.

During login, the username is stored in SharedPreferences, and during app usage, the stored username is retrieved from SharedPreferences.

SharedPreferences sharedPref = getSharedPreferences("user\_shared\_preferences", Context.MODE\_PRIVATE);

SharedPreferences.Editor editor = sharedPref.edit();

editor.putString("loggedInUserName", userName);

editor.apply();

SharedPreferences sharedPref = requireActivity().getSharedPreferences("user\_shared\_preferences", requireContext().MODE\_PRIVATE);

username = sharedPref.getString("loggedInUserName", "");

**Example of Minor Hurdles (Problem was Ignorance, Solution was Exploration).**

* java.lang.NullPointerException: Attempt to invoke virtual method 'android.text.Editable android.widget.EditText.getText()' on a null object reference

Spinner gD;

**Error:**

user.setGender(gD. getText().toString());

**Fix:**

user.setGender(gD.getSelectedItem().toString());