CA4-Mobile Programming

1)NAME OF ACTIVITIES :

- Home page
- Register page
- Login page
- Health page
- Fitness page
- Nutrition page
- Safety page
- Essentials page
- Feedback page

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2)DATABASE REQUIREMENTS:

User Information

- **User Table**
    - `user_id` (Primary Key, Unique Identifier)
    - `name`
    - `email` (Unique, for login purposes)
    - `password` (Encrypted)
    - `date_of_birth`
    - `profile_picture` (URL or Blob)
    - `phone_number`
    - `address`

2. Health and Wellness

- **Health Records Table**
  - `record_id` (Primary Key)
  - `user_id` (Foreign Key)
  - `date`
  - `height`
  - `weight`
  - `bmi`
  - `medical_conditions` (Text or JSON)
  - `medications` (Text or JSON)
  - `allergies` (Text or JSON)
  - `notes`
- **Menstrual Cycle Tracking Table**
  - `cycle_id` (Primary Key)
  - `user_id` (Foreign Key)
  - `start_date`
  - `end_date`
  - `cycle_length`
  - `symptoms` (Text or JSON)
  - `notes`

3. Fitness and Activity

- **Fitness Goals Table**
  - `goal_id` (Primary Key)
  - `user_id` (Foreign Key)
  - `goal_type` (e.g., weight loss, strength training)
  - `description`
  - `target_date`
  - `progress` (Percentage or Text)
- **Activity Log Table**
  - `activity_id` (Primary Key)
  - `user_id` (Foreign Key)
  - `date`
  - `activity_type` (e.g., running, yoga)
  - `duration` (in minutes)
  - `calories_burned`
  - `notes`

4. Nutrition and Diet

- **Diet Plan Table**
    - `diet_id` (Primary Key)
    - `user_id` (Foreign Key)
    - `plan_name`
    - `description`
    - `start_date`
    - `end_date`
    - `calories_per_day`
- **Meal Log Table**
    - `meal_id` (Primary Key)
    - `user_id` (Foreign Key)
    - `date`
    - `meal_type` (e.g., breakfast, lunch, dinner)
    - `food_items` (Text or JSON)
    - `calories`
    - `notes`

5. Notifications and Reminders

- **Notifications Table**
    - `notification_id` (Primary Key)
    - `user_id` (Foreign Key)
    - `type` (e.g., reminder, alert)
    - `message`
    - `date`
    - `status` (e.g., read, unread)
- **Reminders Table**
    - `reminder_id` (Primary Key)
    - `user_id` (Foreign Key)
    - `title`
    - `description`
    - `reminder_date`
    - `repeat` (e.g., daily, weekly)
    - `status` (e.g., active, completed)

Activity_home.xml

```xml
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:gravity="center"
    android:background="#EF0A93"
    android:padding="16dp">

    <ImageView
        android:id="@+id/logo"
        android:layout_width="308dp"
        android:layout_height="505dp"
        android:layout_gravity="center"
        android:layout_marginBottom="32dp"
        android:src="@drawable/img_1" />

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="0dp"
        android:layout_weight="1"
        android:gravity="bottom"
        android:orientation="vertical"
        android:layout_marginBottom="16dp">

        <Button
            android:id="@+id/register_button"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Register"
            android:padding="10dp"
            android:textColor="#FF4081"
            android:background="#FFF7F7"/>
    </LinearLayout>

    <Button
        android:id="@+id/login_button"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginBottom="16dp"
        android:background="#FFFFFF"
        android:padding="10dp"
        android:text="Login"
        android:textColor="#FF4081" />
</LinearLayout>
```

Kt file

```kotlin
package com.example.yourapp

import android.content.Intent
import android.os.Bundle
import android.widget.Button
import androidx.appcompat.app.AppCompatActivity

class MainActivity : AppCompatActivity() {

    private lateinit var loginButton: Button
    private lateinit var registerButton: Button

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        loginButton = findViewById(R.id.login_button)
        registerButton = findViewById(R.id.register_button)

        loginButton.setOnClickListener {
            // Handle login button click
            val intent = Intent(this, LoginActivity::class.java)
            startActivity(intent)
        }

        registerButton.setOnClickListener {
            // Handle register button click
            val intent = Intent(this, RegisterActivity::class.java)
            startActivity(intent)
        }
    }
}
```
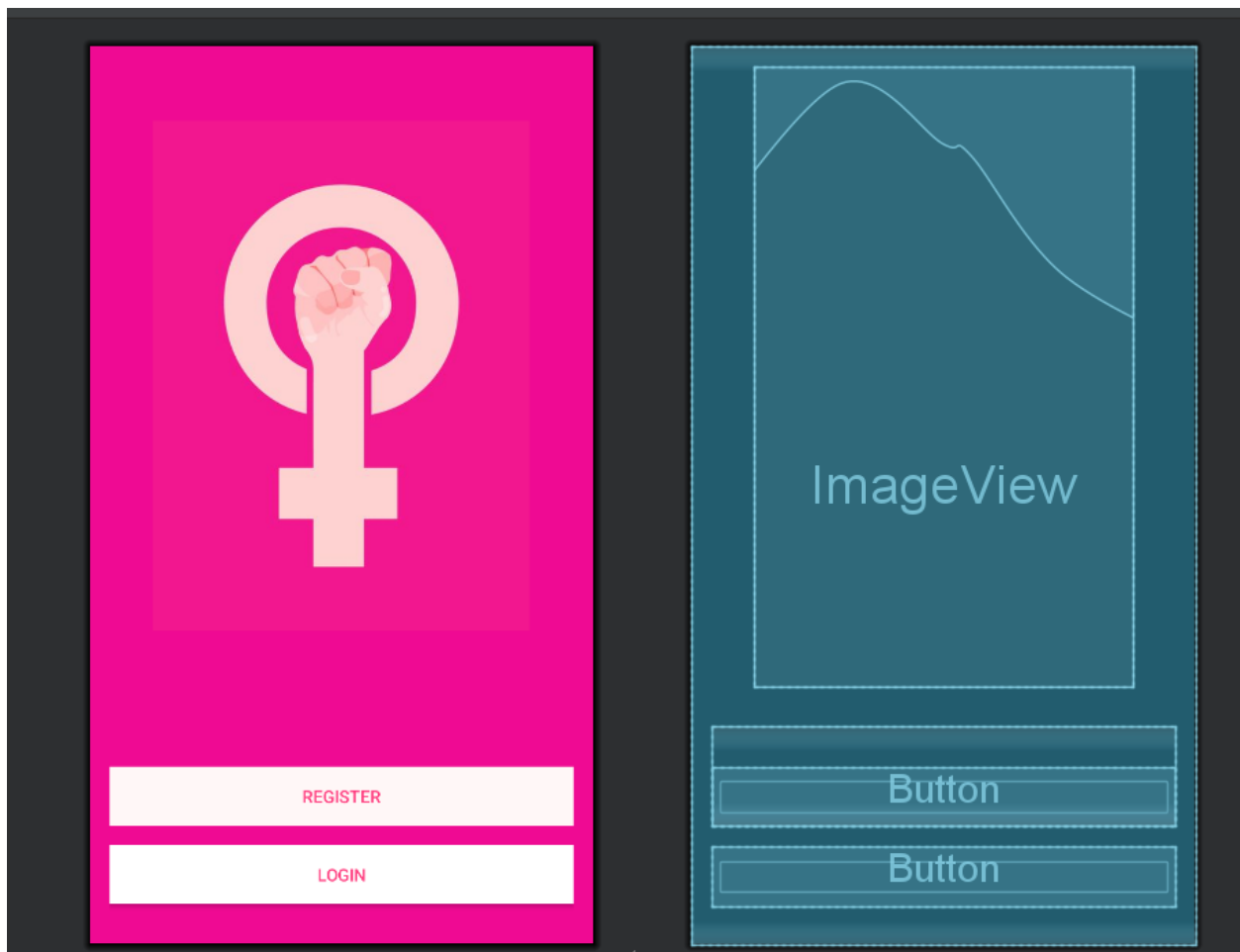
OUTPUT:

Activity_login.xml

```xml
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:padding="16dp"
    android:background="#FFC0CB">

    <EditText
        android:id="@+id/user_id"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="User ID"
        android:inputType="text"
        android:padding="10dp"
        android:background="@android:drawable/edit_text"
        android:textColor="#000000"
        android:layout_marginBottom="16dp"/>
```

```xml
    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Password"
        android:padding="10dp"
        android:background="@android:drawable/edit_text"
        android:textColor="#000000"
        android:layout_marginBottom="16dp"
        android:inputType="textPassword" />

    <Button
        android:id="@+id/submit_button"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:background="#F7C62C79"
        android:padding="10dp"
        android:text="Submit"
        android:textColor="#FFFFFF" /> <!-- This sets the button color to a
darker pink -->
    </LinearLayout>
```

Login.Kt

```kotlin
package com.example.yourapp

import android.os.Bundle
import android.widget.Button
import android.widget.EditText
import android.widget.Toast
import androidx.appcompat.app.AppCompatActivity

class MainActivity : AppCompatActivity() {

    private lateinit var userId: EditText
    private lateinit var password: EditText
    private lateinit var submitButton: Button

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
```
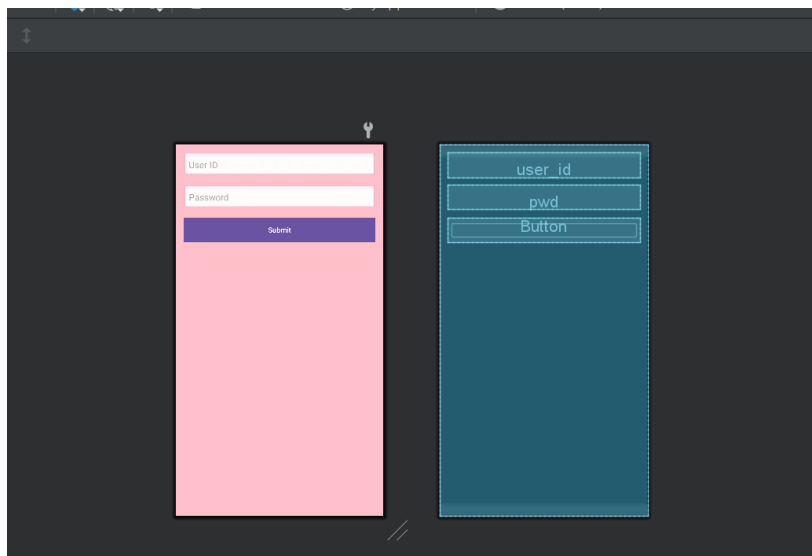
```
        setContentView(R.layout.activity_main)

        userId = findViewById(R.id.user_id)
        password = findViewById(R.id.pwd)
        submitButton = findViewById(R.id.submit_button)

        submitButton.setOnClickListener {
            val user = userId.text.toString()
            val pass = password.text.toString()
            Toast.makeText(this, "User: $user\nPassword: $pass",
Toast.LENGTH_SHORT).show()
        }
    }
}
```

OUTPUT:

Activity_register.xml

```xml
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:padding="16dp"
```

```xml
    android:background="@drawable/img"
    android:gravity="center">

<EditText
    android:id="@+id/name"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Name"
    android:inputType="textPersonName"
    android:padding="10dp"
    android:background="@android:drawable/edit_text"
    android:textColor="#000000"
    android:layout_marginBottom="16dp"/>

<EditText
    android:id="@+id/phone_number"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Phone Number"
    android:inputType="phone"
    android:padding="10dp"
    android:background="@android:drawable/edit_text"
    android:textColor="#000000"
    android:layout_marginBottom="16dp"/>

<EditText
    android:id="@+id/email"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Email ID"
    android:inputType="textEmailAddress"
    android:padding="10dp"
    android:background="@android:drawable/edit_text"
    android:textColor="#000000"
    android:layout_marginBottom="16dp"/>

<EditText
    android:id="@+id/date_of_birth"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Date of Birth"
    android:inputType="date"
    android:padding="10dp"
    android:background="@android:drawable/edit_text"
    android:textColor="#000000"
    android:layout_marginBottom="16dp"/>

<Button
    android:id="@+id/register_button"
```

```xml
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Register"
        android:padding="10dp"
        android:textColor="#FFFFFF"
        android:background="#000000"/>
</LinearLayout>
```

Register.kt

```kotlin
package com.example.yourapp

import android.os.Bundle
import android.widget.Button
import android.widget.EditText
import android.widget.Toast
import androidx.appcompat.app.AppCompatActivity

class RegisterActivity : AppCompatActivity() {

    private lateinit var name: EditText
    private lateinit var phoneNumber: EditText
    private lateinit var email: EditText
    private lateinit var dateOfBirth: EditText
    private lateinit var registerButton: Button

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_register)

        name = findViewById(R.id.name)
        phoneNumber = findViewById(R.id.phone_number)
        email = findViewById(R.id.email)
        dateOfBirth = findViewById(R.id.date_of_birth)
        registerButton = findViewById(R.id.register_button)

        registerButton.setOnClickListener {
            val userName = name.text.toString()
            val userPhone = phoneNumber.text.toString()
            val userEmail = email.text.toString()
```

```
        val userDob = dateOfBirth.text.toString()

        Toast.makeText(this, "Name: $userName\nPhone: $userPhone\nEmail:
$userEmail\nDOB: $userDob", Toast.LENGTH_SHORT).show()
    }
  }
}
```

OUTPUT: