

***MID-TERM ASSIGNMENT REPORT***

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**CBOD4103**

**Mobile Programming I**

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**HUTECH**

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# Question 1: Fitness App

## Copy of code:

### - *Activity\_main.xml*:

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

    <ImageView
        android:id="@+id/mainImage"
        android:layout_width="match_parent"
        android:layout_height="200dp"
        android:src="@drawable/fitness_image" />

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Choose your Exercise"
        android:textSize="18sp" />

    <ListView
        android:id="@+id/exerciseList"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
</LinearLayout>
```

### - *MainActivity.java*:

```
package com.example.fitness;

import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;
import androidx.appcompat.widget.Toolbar;

public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
}
```

```

        String[] exercises = {"Cardio", "Strength Training", "Yoga",
"Walking", "Stretching"};
        ListView exerciseList = findViewById(R.id.exerciseList);

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
android.R.layout.simple_list_item_1, exercises);
        exerciseList.setAdapter(adapter);

        exerciseList.setOnItemClickListener(new
AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
position, long id) {
                String exercise = exercises[position];
                Toast.makeText(MainActivity.this, exercise,
Toast.LENGTH_SHORT).show();
            }
        });
    }
}

```

### - *AndroidManifest.xml:*

```

<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools">

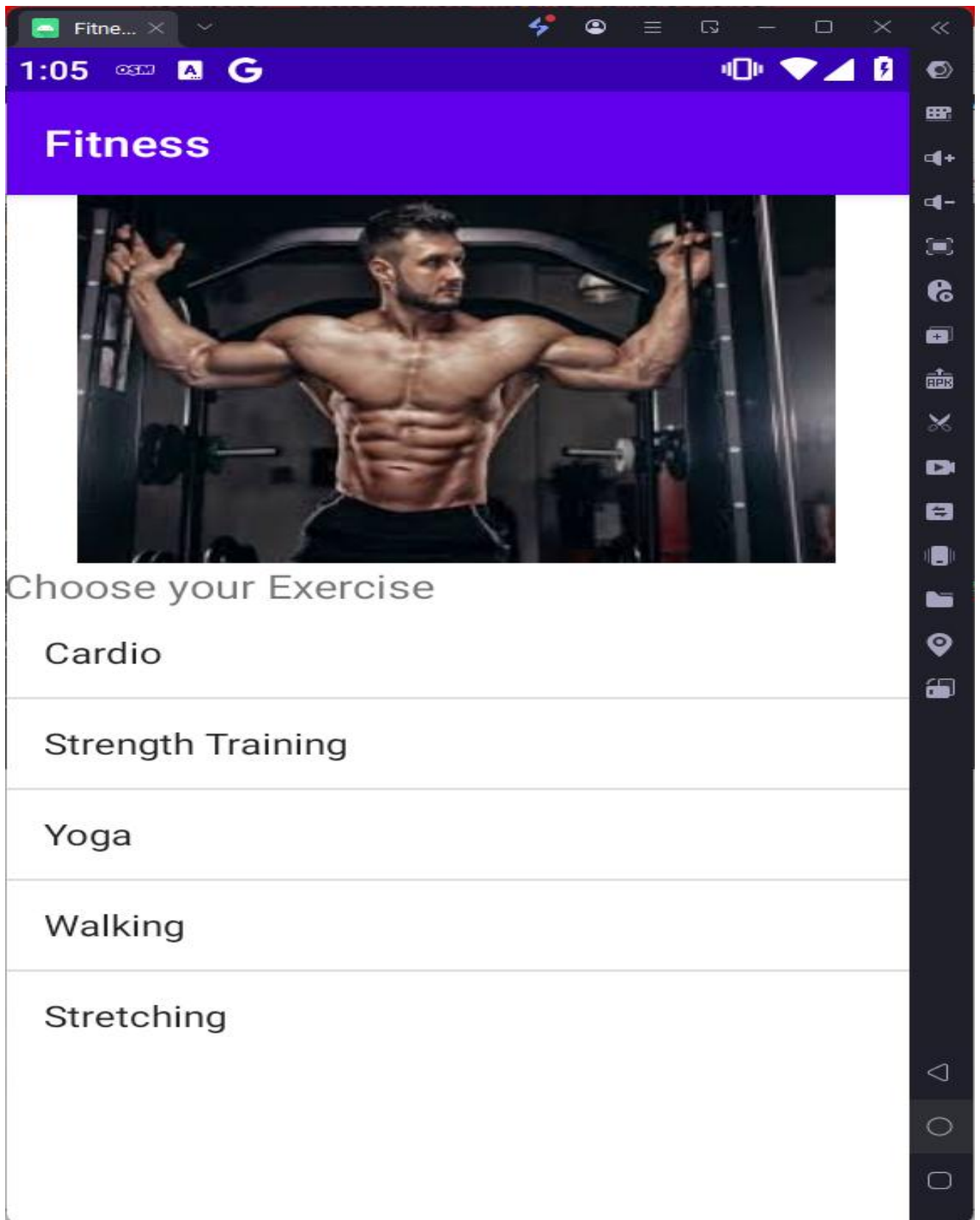
    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.Fitness"
        tools:targetApi="31">

        <activity android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>

    </application>
</manifest>

```

### App interface:



## Question 2: Finance App

### Copy of code:

#### - *AndroidManifest.xml*:

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

    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.FinanceManagerApp"
        tools:targetApi="31">

        <activity android:name=".MainActivity" android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>

        <activity android:name=".ResultActivity" />

    </application>
</manifest>
```

#### - *MainActivity.java*:

```
package com.example.financemanagerapp;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    private EditText edtName, edtSalary, edtNeeds, edtWants, edtSavings;
    private Button btnCalculate;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
```

```

        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        edtName = findViewById(R.id.edtName);
        edtSalary = findViewById(R.id.edtSalary);
        edtNeeds = findViewById(R.id.edtNeeds);
        edtWants = findViewById(R.id.edtWants);
        edtSavings = findViewById(R.id.edtSavings);
        btnCalculate = findViewById(R.id.btnCalculate);

        btnCalculate.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                calculateBudget();
            }
        });

        private void calculateBudget() {
            String name = edtName.getText().toString();
            double salary = Double.parseDouble(edtSalary.getText().toString());
            double needsPercent =
Double.parseDouble(edtNeeds.getText().toString());
            double wantsPercent =
Double.parseDouble(edtWants.getText().toString());
            double savingsPercent =
Double.parseDouble(edtSavings.getText().toString());

            double needsAmount = (needsPercent / 100) * salary;
            double wantsAmount = (wantsPercent / 100) * salary;
            double savingsAmount = (savingsPercent / 100) * salary;

            Intent intent = new Intent(MainActivity.this, ResultActivity.class);
            intent.putExtra("name", name);
            intent.putExtra("needs", needsAmount);
            intent.putExtra("wants", wantsAmount);
            intent.putExtra("savings", savingsAmount);
            startActivity(intent);
        }
    }
}

```

### - activity\_main.xml:

```

<?xml version="1.0" encoding="utf-8"?>
<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">

    <EditText
        android:id="@+id/edtName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"

```

```

        android:hint="Enter your name"/>

<EditText
    android:id="@+id/edtSalary"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Enter your salary"
    android:inputType="numberDecimal"/>

<EditText
    android:id="@+id/edtNeeds"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Needs (%)"
    android:inputType="numberDecimal"/>

<EditText
    android:id="@+id/edtWants"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Wants (%)"
    android:inputType="numberDecimal"/>

<EditText
    android:id="@+id/edtSavings"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Savings (%)"
    android:inputType="numberDecimal"/>

<Button
    android:id="@+id/btnCalculate"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Calculate Budget"/>

</LinearLayout>

```

## ***- ResultActivity.java***

```

package com.example.financemanagerapp;

import android.os.Bundle;
import android.widget.TextView;
import androidx.appcompat.app.AppCompatActivity;

public class ResultActivity extends AppCompatActivity {
    private TextView txtResult;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_result);

        txtResult = findViewById(R.id.txtResult);
    }
}

```



```

String name = getIntent().getStringExtra("name");
double needs = getIntent().getDoubleExtra("needs", 0);
double wants = getIntent().getDoubleExtra("wants", 0);
double savings = getIntent().getDoubleExtra("savings", 0);

String result = "Hello " + name + "!\n\n"
    + "Budget Allocation:\n"
    + "Needs: $" + needs + "\n"
    + "Wants: $" + wants + "\n"
    + "Savings: $" + savings;
txtResult.setText(result);
}
}

```

### **- activity\_result.xml:**

```

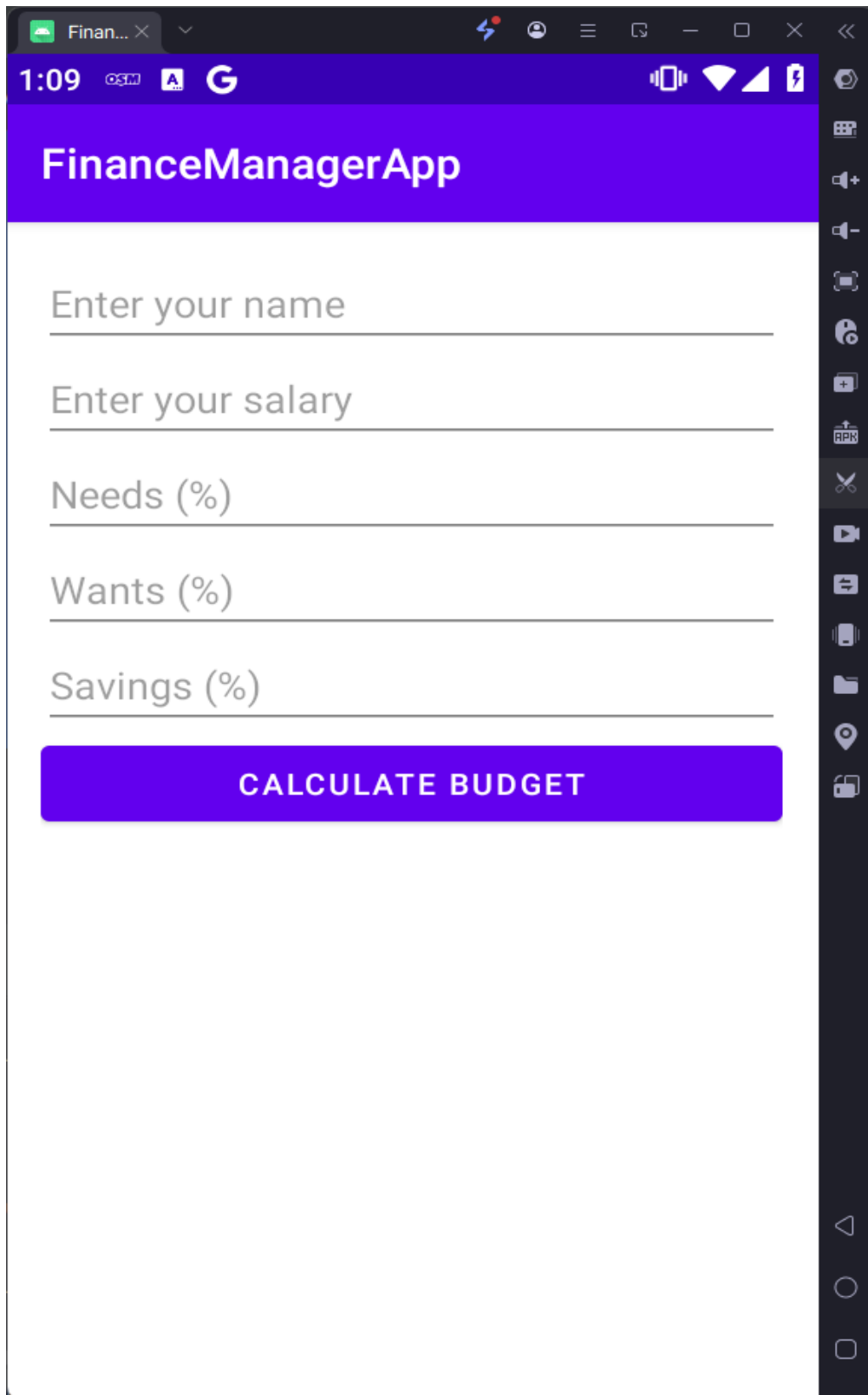
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:padding="16dp">

    <TextView
        android:id="@+id/txtResult"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:textSize="18sp"
        android:textColor="@android:color/black"/>

</LinearLayout>

```

## App interface:



The screenshot shows a mobile application interface for "FinanceManagerApp". The app is displayed within a browser window, with the address bar showing "Finan...". The app's header is a solid blue bar with the title "FinanceManagerApp" in white. Below the header, there are five input fields for user data: "Enter your name", "Enter your salary", "Needs (%)", "Wants (%)", and "Savings (%)". Each input field has a light blue border and a light blue underline. At the bottom of the form is a large blue button with the text "CALCULATE BUDGET" in white. The background of the app is white. The mobile device's status bar at the top shows the time "1:09", the signal strength indicator, and the battery level. The browser's address bar and the mobile device's navigation bar are visible at the bottom.

Finan... X

1:09 0.5M A G

FinanceManagerApp

Enter your name

Enter your salary

Needs (%)

Wants (%)

Savings (%)

CALCULATE BUDGET

**Input:**

Finan... X

1:11 OSM A G

FinanceManagerApp

Tai

5000

50

30

20

CALCULATE BUDGET

## Output:

