Mid term

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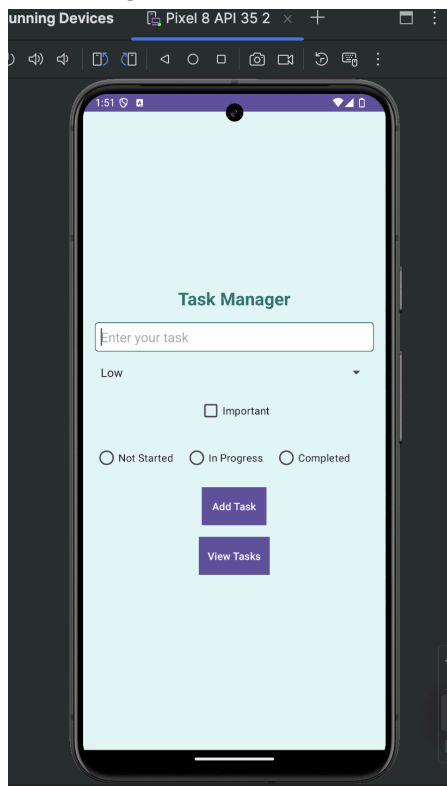ID: 1227980
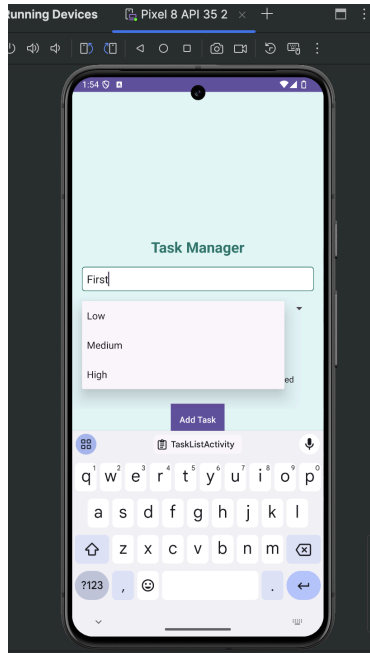Subject: (2024A) COMP-5450-AA - Mobile Programming
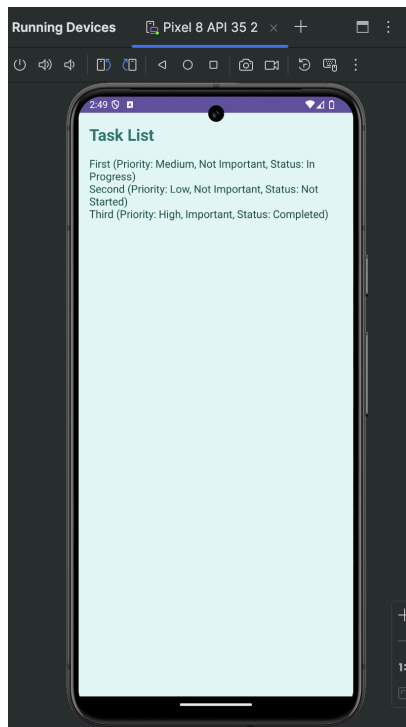
Ques2 :

App name: TaskManager

Home page:

We can add multiple Tasks here along with the level of weightage for the particular task. Along with this, we can also check if it is very important. This app also facilitates to mark the status of the task, whether it is not started, in progress or completed.
Add task button is used to save the filled data.

Output for the spinner, dropdown with the list of 3 options:

On clicking the View Tasks button, all the tasks that are added are listed down on another GUI view.

Codes:

Activity_main.xml

```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"
    android:gravity="center"
    android:background="#E0F7FA">

    <TextView
        android:id="@+id/title"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Task Manager"
        android:textSize="24sp"
        android:textStyle="bold"
        android:layout_marginBottom="16dp"
        android:textColor="#00796B" />

    <EditText
        android:id="@+id/taskInput"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter your task"
        android:padding="8dp"
        android:background="@drawable/edit_text_bg"
        android:layout_marginBottom="16dp" />

    <Spinner
        android:id="@+id/prioritySpinner"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:entries="@array/priority_array"
        android:layout_marginBottom="16dp" />

    <CheckBox
        android:id="@+id/importantCheckBox"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Important"
        android:layout_marginBottom="16dp" />

    <RadioGroup
        android:id="@+id/statusRadioGroup"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:layout_marginBottom="16dp">
```

```xml
        <RadioButton
            android:id="@+id/notStartedRadioButton"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Not Started" />

        <RadioButton
            android:id="@+id/inProgressRadioButton"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="In Progress"
            android:layout_marginStart="16dp"
            android:layout_marginLeft="16dp" />

        <RadioButton
            android:id="@+id/completedRadioButton"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Completed"
            android:layout_marginStart="16dp"
            android:layout_marginLeft="16dp" />
    </RadioGroup>

    <Button
        android:id="@+id/addTaskButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Add Task"
        android:background="@color/button_background"
        android:textColor="@android:color/white"
        android:padding="12dp" />

    <Button
        android:id="@+id/viewTasksButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="View Tasks"
        android:background="@color/button_background"
        android:textColor="@android:color/white"
        android:padding="12dp"
        android:layout_marginTop="16dp" />
</LinearLayout>
```

Exit_text_bg.xml

```xml
<shape xmlns:android="http://schemas.android.com/apk/res/android">
    <solid android:color="#FFFFFF"/>
    <corners android:radius="4dp"/>
    <stroke android:width="1dp" android:color="#00796B"/>
```

```
</shape>
```

Colors.xml

```xml
<resources>
    <color name="button_background">#00796B</color>
</resources>
```

Strings.xml

```xml
<resources>
    <string name="app_name">TaskManager</string>
    <string-array name="priority_array">
        <item>Low</item>
        <item>Medium</item>
        <item>High</item>
    </string-array>
</resources>
```

Activity_task_list.xml

```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"
    android:background="#E0F7FA">

    <TextView
        android:id="@+id/title"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Task List"
        android:textSize="24sp"
        android:textStyle="bold"
        android:layout_marginBottom="16dp"
        android:textColor="#00796B" />

    <TextView
        android:id="@+id/tasksList"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="No tasks added yet."
        android:textSize="16sp"
```

```
        android:textColor="#004D40" />
</LinearLayout>
```

TaskListActivity.xml

```kotlin
package com.example.midterm_que2

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

class TaskListActivity : AppCompatActivity() {

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

        val tasksListTextView: TextView = findViewById(R.id.tasksList)

        val tasks = intent.getStringArrayListExtra("tasks") ?: arrayListOf()
        if (tasks.isNotEmpty()) {
            tasksListTextView.text = tasks.joinToString("\n")
        } else {
            tasksListTextView.text = "No tasks added yet."
        }
    }
}
```

MainActivity.kt

```kotlin
package com.example.midterm_que2

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

class MainActivity : AppCompatActivity() {

    private lateinit var taskInput: EditText
    private lateinit var prioritySpinner: Spinner
    private lateinit var importantCheckBox: CheckBox
    private lateinit var statusRadioGroup: RadioGroup
    private lateinit var addTaskButton: Button
    private lateinit var viewTasksButton: Button
    private val tasks = mutableListOf<String>()
```

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

        taskInput = findViewById(R.id.taskInput)
        prioritySpinner = findViewById(R.id.prioritySpinner)
        importantCheckBox = findViewById(R.id.importantCheckBox)
        statusRadioGroup = findViewById(R.id.statusRadioGroup)
        addTaskButton = findViewById(R.id.addTaskButton)
        viewTasksButton = findViewById(R.id.viewTasksButton)

        addTaskButton.setOnClickListener {
            addTask()
        }

        viewTasksButton.setOnClickListener {
            viewTasks()
        }

        prioritySpinner.onItemSelectedListener = object :
AdapterView.OnItemSelectedListener {
            override fun onItemSelected(parent: AdapterView<*>?, view:
android.view.View?, position: Int, id: Long) {
                // Optionally handle item selection changes
            }

            override fun onNothingSelected(parent: AdapterView<*>?) {
                // Optionally handle no item selected case
            }
        }
    }

    private fun addTask() {
        val task = taskInput.text.toString().trim()
        val priority = prioritySpinner.selectedItem.toString()
        val important = if (importantCheckBox.isChecked) "Important" else "Not
Important"
        val status = when (statusRadioGroup.checkedRadioButtonId) {
            R.id.notStartedRadioButton -> "Not Started"
            R.id.inProgressRadioButton -> "In Progress"
            R.id.completedRadioButton -> "Completed"
            else -> "Unknown"
        }

        if (task.isNotEmpty()) {
            tasks.add("$task (Priority: $priority, $important, Status:
$status)")
            taskInput.text.clear()
```

```
            importantCheckBox.isChecked = false
            statusRadioGroup.clearCheck()
        }
    }

    private fun viewTasks() {
        val intent = Intent(this, TaskListActivity::class.java)
        intent.putStringArrayListExtra("tasks", ArrayList(tasks))
        startActivity(intent)
    }
}
```

AndroidManifest.xml

```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"
    tools:ignore="ExtraText">

    <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:supportsRtl="true"
        android:theme="@style/Theme.MidTerm_Que2"
        tools:targetApi="31">
        <activity android:name=".TaskListActivity"
            tools:ignore="DuplicateActivity" />
        <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>
```