

	NAME	MUHAMMAD NABIL BIN KHAIRUDIN	MARKS : / 100
	REGISTRATION NO	25DIT24F1010	
	DATE	10/8/2026	
	CLASS	DIT5E	
	CODE/SUBJECT	DFP40453 – MOBILE APPLICATION DEVELOPMENT	
	ASSESSMENT	PRACTICAL WORK 2	
	LECTURER	PUAN MUNIRAH BINTI AB RAHMAN	

CLO 1 : Construct mobile application components, APIs and libraries by using android development tools (P4, PLO3)

**TOPIC : 2.1 Construct Application User Interface
2.2 Navigating between Activities**

DURATION : 3 Hours

INSTRUCTION : COMPLETE THE FOLLOWING TASK INDIVIDUALLY.

SCENARIO:

You have been assigned by the Student Affairs Department to develop a simple **Student Orientation Registration Application** for new students attending the orientation programme. The application should collect student information, calculate the orientation registration fee based on the selected activities, display the data in an organized layout, and pass the information to another screen using an Intent Object.

REQUIREMENT:

- Create a new project and name it as:
 - Project Name: PW1_<studentID>
 - Package Name: com.pmj.pw1_<studentID>
 - Language: Java
 - Template: Empty Views Activity.
- Organize the interface using:
 - LinearLayout** as the main layout.
 - At least one **additional layout** (e.g: GridLayout or TableLayout) to arrange related components neatly.

3. **MainActivity** (Student Registration Form) – Design the interface as shown in **Figure 1**.

i. Student Information

- EditText: Student Name
- EditText: Student ID
- EditText: Email Address

ii. Gender

- Radio Buttons:
 - Male
 - Female

iii. Number of Workshop Sessions

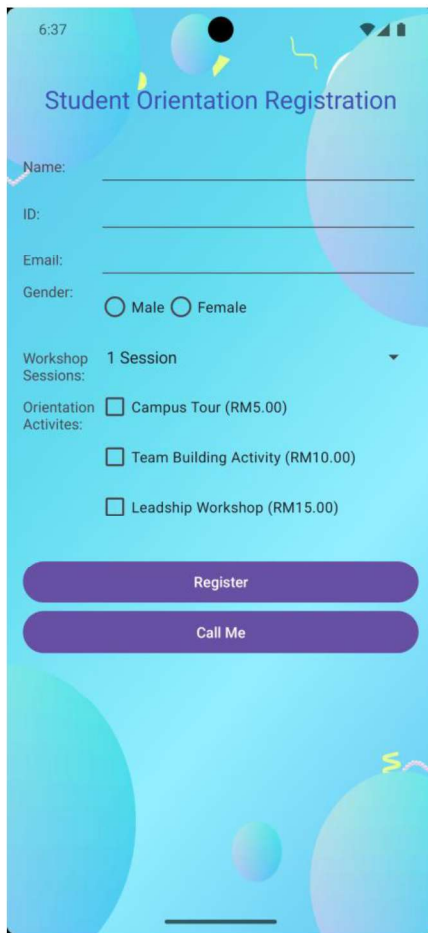
- Spinner items:
 - 1 session
 - 2 sessions
 - 3 sessions
 - 4 sessions
 - 5 sessions

iv. Orientation Activities (Optional)

- Checkboxes:
 - Campus Tour – RM 5.00
 - Team Building Activity – RM 10.00
 - Leadership Workshop – RM 15.00

v. Buttons:

- Register – Submit data to `SecondActivity`
- Call Me – Dial the ride service number (refer **Figure 2**)



6:37

Student Orientation Registration

Name:

ID:

Email:

Gender: ☐ Male ☐ Female

Workshop Sessions: 1 Session ▼

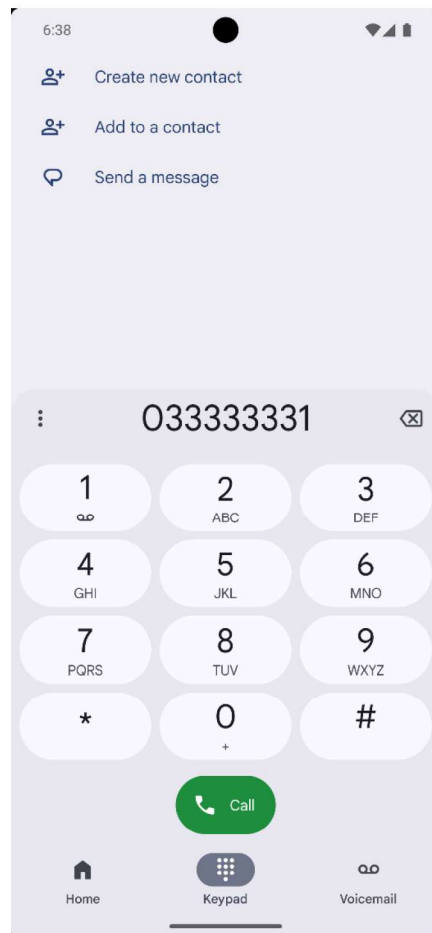
Orientation Activites:

- ☐ Campus Tour (RM5.00)
- ☐ Team Building Activity (RM10.00)
- ☐ Leadship Workshop (RM15.00)

[Register](#)

[Call Me](#)

Figure 1



6:38

[Create new contact](#)

[Add to a contact](#)

[Send a message](#)

033333331

1 2 3

4 5 6

7 8 9

* 0 #

[Call](#)

[Home](#) [Keypad](#) [Voicemail](#)

Figure 2

4. Requirement Functionality

i. Validation: Validate that the following fields are entered:

- Student Name, ID and Email Address

Toast message: "Please complete all required student information"

(Refer **Figure 3**)

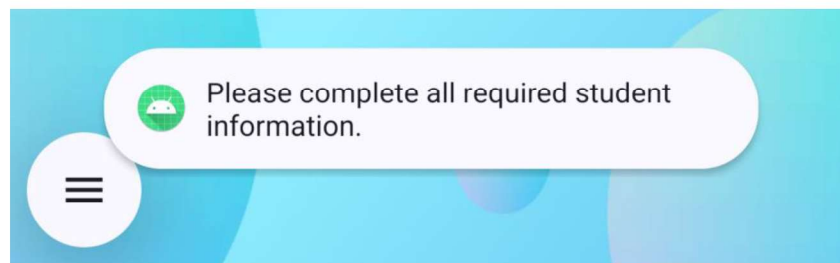


Figure 3

ii. Fee Calculation

The orientation fee consists of:

- Basic Registration Fee = RM50.00
- Workshop Session Fee = RM 20.00 x Number of sessions
- Additional Activity Fees:
 - Campus Tour – RM 5.00
 - Team Building Activity – RM 10.00
 - Leadership Workshop – RM 15.00

Formula:

Total Orientation Fee = Basic Registration + Workshop Session + Additional Fees

5. SecondActivity (Registration Summary) – Design the interface as shown in **Figure 4**.

i. Display the following information received from MainActivity using Intent Extras:

- Student Name
- Student ID
- Email Address
- Gender
- Number of Workshop Sessions
- Selected Orientation Activities
- Total Orientation Fee

ii. Include the following button:

- Back – Return to MainActivity.

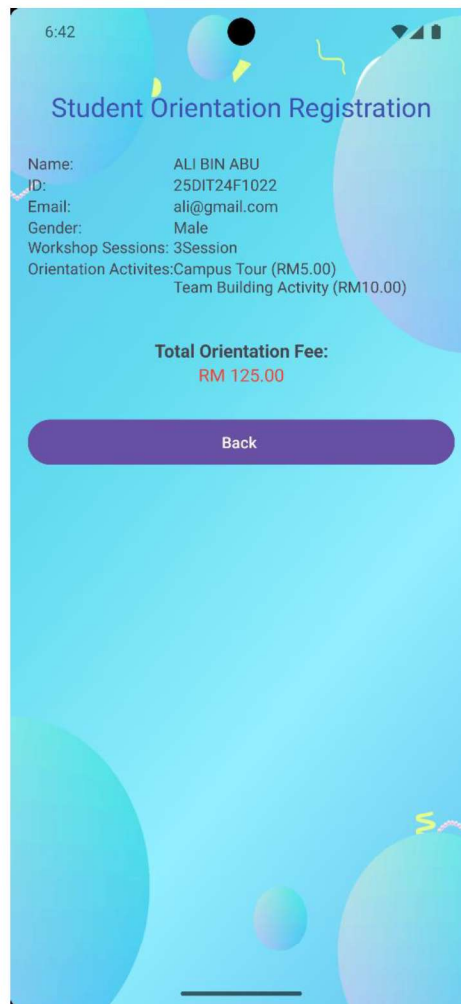


Figure 4

(CLO1, P4)

SUBMISSION:

Submit your following file answer through CIDOS Platform:

1. Zip your entire workspace folder. **(.zip, .rar)**
2. A report file consisting of the question, rubric, source code and a screenshot of the output. Save the file as **pw1_matricNo.pdf** (Eg:pw1_25DDT21F1011.pdf)

WARNING: Any work found to contain plagiarism will be awarded zero marks.

Name: MUHAMMAD NABIL BIN KAHIRUDIN

Registration Number: 25DIT24F1010

RUBRIC PRACTICAL WORK 2

CRITERIA	EXCELLENT (4)	VERY GOOD (3)	GOOD (2)	POOR (1)	STANDARD	MARKS
1. Project Setup	Project name, package name, language, and template are correctly configured.	Minor errors in configuration.	Several configuration errors.	Project setup is incomplete or incorrect.	$\frac{\quad}{4} * 5 =$	
2. User Interface Design	Registration form is complete, attractive, and all required components are included.	Most components are included with minor layout issues.	Several required components are missing or poorly arranged.	Interface is incomplete or difficult to use.	$\frac{\quad}{4} * 15 =$	
3. Layout Organization	Uses LinearLayout and an additional layout appropriately. Components are neatly aligned with consistent spacing.	Required layouts are used with minor alignment issues.	Layouts are used but organization is inconsistent.	Layout requirements are not followed.	$\frac{\quad}{4} * 10 =$	
4. Input Validation	Correctly validates Student Name, Student ID, and Email Address. Toast message functions exactly as specified.	Validation works with minor issues.	Validation is partially implemented.	Validation is missing or incorrect.	$\frac{\quad}{4} * 5 =$	
5. Fee Calculation	Calculates total orientation fee accurately for all combinations of sessions and activities.	Minor calculation errors.	Calculation works only for some cases.	Calculation is incorrect or not implemented.	$\frac{\quad}{4} * 10 =$	
6. Intent Extras Implementation	All required information is passed and received correctly using Intent Extras.	Minor errors in passing or receiving data.	Some data is missing or displayed incorrectly.	Intent Extras are not implemented correctly.	$\frac{\quad}{4} * 15 =$	
7. Telephony Call Implementation	Dial Intent opens the phone dialer correctly using the specified number.	Minor issues with implementation.	Features work inconsistently.	Feature is not implemented.	$\frac{\quad}{4} * 10 =$	

8. Code Quality & Readability	Code is well-organized, properly indented, and adequately commented.	Minor issues in readability or comments.	Limited comments and organization.	Poorly structured code with no documentation.	$\frac{\quad}{4} * 10 =$	
9. Testing and Application Execution	Application runs flawlessly and all features have been tested successfully.	Application runs well with minor issues.	Application runs partially or crashes occasionally.	Application fails to run or most features do not function.	$\frac{\quad}{4} * 10 =$	
10. Timeliness / Completeness	Assignment is submitted on time and includes all required components.	Submitted on time but missing minor components.	Submitted late but includes all required components.	Submitted late and missing several required components.	$\frac{\quad}{4} * 10 =$	
TOTAL MARK / 100						

**Zero (0) mark will be given if students do not answer/perform the criteria needed.*

CODING:

i.MainActivity.java

```
package com.example.pw2_25dit24f1010;

import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.Button;
import android.widget.CheckBox;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.Spinner;
import android.widget.Toast;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity extends AppCompatActivity {

    String gender = "";
    String act1 = "";
    String act2 = "";
    String act3 = "";
    double bFee = 0.0;
    int numberOfSession = 0;
    double sessionFee = 0.0;
    double actFee = 0.0;
    double totalPrice = 0.0;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_main);

        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main),
            (v, insets) -> {
                Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
                v.setPadding(systemBars.left, systemBars.top,
systemBars.right, systemBars.bottom);
            }
        );
    }
}
```

```

        return insets;
    });

    // ===== INITIALIZE VIEWS =====
    Spinner spinnerSession = findViewById(R.id.spinner);
    String[] sessions = {"-- Select Session --", "1 Session", "2
Session", "3 Session", "4 Session", "5 Session"};
    ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
android.R.layout.simple_spinner_dropdown_item, sessions);
    spinnerSession.setAdapter(adapter);
    spinnerSession.setSelection(0); // Set to hint

    EditText editFName = findViewById(R.id.eName);
    EditText editID = findViewById(R.id.eID);
    EditText editEmail = findViewById(R.id.eEmail);
    Button btnSecondPage = findViewById(R.id.button);
    RadioButton r_male = findViewById(R.id.rbMale);
    RadioButton r_famale = findViewById(R.id.rbFamale);
    CheckBox b1 = findViewById(R.id.cb1);
    CheckBox b2 = findViewById(R.id.cb2);
    CheckBox b3 = findViewById(R.id.cb3);

    btnSecondPage.setOnClickListener(new View.OnClickListener()
{
    @Override
    public void onClick(View view) {

        gender = "";
        act1 = "";
        act2 = "";
        act3 = "";

        String s_name =
editFName.getText().toString().trim();
        String s_id = editID.getText().toString().trim();
        String s_email =
editEmail.getText().toString().trim();
        String s_session =
spinnerSession.getSelectedItem().toString();

        boolean isValid = true;
        String errorMessage = "";

        if (s_name.isEmpty()) {

```

```

        isValid = false;
        errorMessage += "• Name cannot be empty\n";
    }

    if (s_id.isEmpty()) {
        isValid = false;
        errorMessage += "• ID cannot be empty\n";
    }

    if (s_email.isEmpty()) {
        isValid = false;
        errorMessage += "• Email cannot be empty\n";
    }

    if (!r_male.isChecked() && !r_famale.isChecked()) {
        isValid = false;
        errorMessage += "• Please select your gender\n";
        Toast.makeText(MainActivity.this, "Please select
your gender!", Toast.LENGTH_SHORT).show();
    } else {
        if (r_male.isChecked()) {
            gender = "Male";
        } else if (r_famale.isChecked()) {
            gender = "Female";
        }
    }
}

    if (s_session.equals("-- Select Session --")) {
        isValid = false;
        errorMessage += "• Please select a session\n";
        Toast.makeText(MainActivity.this, "Please select
a session!", Toast.LENGTH_SHORT).show();
    }

    bFee = 50.0;

    if(s_session.startsWith("1")) {
        numberOfSession = 1;
    } else if (s_session.startsWith("2")) {
        numberOfSession = 2;
    } else if (s_session.startsWith("3")) {
        numberOfSession = 3;
    } else if (s_session.startsWith("4")) {
        numberOfSession = 4;
    }

```

```

    } else if (s_session.startsWith("5")) {
        numberOfSession = 5;
    }

    sessionFee = 20 * numberOfSession;

    if (!b1.isChecked() && !b2.isChecked() &&
!b3.isChecked()) {
        isValid = false;
        errorMessage += "• Please select at least 1
activity\n";
        Toast.makeText(MainActivity.this, "Please select
at least 1 activity!", Toast.LENGTH_SHORT).show();
    } else {
        if (b1.isChecked()) {
            act1 = "Campus Tour (RM5.00)";
            actFee += 5.0;
        }
        if (b2.isChecked()) {
            act2 = "Team Building Activity (RM10.00)";
            actFee += 10.0;
        }
        if (b3.isChecked()) {
            act3 = "Leadership Workshop (RM15.00)";
            actFee += 15.0;
        }
    }
    totalPrice = bFee + sessionFee +actFee;

    if (isValid) {
        Intent intent = new Intent(MainActivity.this,
MainActivity2.class);
        intent.putExtra("idKey", s_id);
        intent.putExtra("nameKey", s_name);
        intent.putExtra("emailKey", s_email);
        intent.putExtra("genderKey", gender);
        intent.putExtra("sessionKey", s_session);
        intent.putExtra("actKey1", act1);
        intent.putExtra("actKey2", act2);
        intent.putExtra("actKey3", act3);
        intent.putExtra("totalPriceKey", totalPrice);
        startActivity(intent);

        // Show success notification
        Toast.makeText(MainActivity.this, "Registration
successful!", Toast.LENGTH_SHORT).show();
    } else {
        // Show all errors in one popup

```

```

        Toast.makeText(MainActivity.this, "Please
complete all information:\n" + errorMessage,
Toast.LENGTH_LONG).show();
    }
}
});

Button btnDial = findViewById(R.id.button2);
btnDial.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        Intent intent = new Intent(Intent.ACTION_DIAL,
Uri.parse("tel:0193120414"));
        startActivity(intent);
    }
});
}
}

```

ii.MainActivity2.java

```

package com.example.pw2_25dit24f1010;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity2 extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_main2);

ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main),
(v, insets) -> {
    Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
    v.setPadding(systemBars.left, systemBars.top,

```

```

systemBars.right, systemBars.bottom);
        return insets;
    });

    TextView txtName = findViewById(R.id.outName);
    TextView txtID = findViewById(R.id.outID);
    TextView txtEmail = findViewById(R.id.outEmail);
    TextView txtGender = findViewById(R.id.outGender);
    TextView txtSession = findViewById(R.id.outSession);
    TextView txtAct = findViewById(R.id.outAct);
    TextView txtAct2 = findViewById(R.id.outAct2);
    TextView txtAct3 = findViewById(R.id.outAct3);
    TextView txtPrice = findViewById(R.id.outFee);
    Intent intent = getIntent();
    String name = intent.getStringExtra("nameKey");
    String id = intent.getStringExtra("idKey");
    String email = intent.getStringExtra("emailKey");
    String gender = intent.getStringExtra("genderKey");
    String session = intent.getStringExtra("sessionKey");
    String a1 = intent.getStringExtra("actKey1");
    String a2 = intent.getStringExtra("actKey2");
    String a3 = intent.getStringExtra("actKey3");
    double tp = intent.getDoubleExtra("totalPriceKey", 0.0);

    txtName.setText(name);
    txtID.setText(id);
    txtEmail.setText(email);
    txtGender.setText(gender);
    txtSession.setText(session);
    txtAct.setText(a1);
    txtAct2.setText(a2);
    txtAct3.setText(a3);
    txtPrice.setText("RM" + String.format("%.2f", tp));

    Button btnSecondPage = findViewById(R.id.button3);
    btnSecondPage.setOnClickListener(new View.OnClickListener()
    {
        @Override
        public void onClick(View v) {
            Intent intent = new Intent(MainActivity2.this,
MainActivity.class);
            startActivity(intent);
        }
    });
}
}

```

OUTPUT:

1:07

Student Oriental Registration

Name: iugu

ID: kjbli

Email: ygyogog

Gender: ☐ Female ☐ Male

Workshop Session: - Select Session -

Orientation Activities:

☐ Campus Tour (RM5.00)

☐ Team Building Activity (RM10.00)

☐ Leadership Workshop (RM15.00)

Register

Call Me

Please select your gender!

1:08

Student Oriental Registration

Name: iugu

ID: kjbli

Email: ygyogog

Gender: ☐ Female ☐ Male

Workshop Session: - Select Session -

Orientation Activities:

1 Session

2 Session

3 Session

4 Session

5 Session

Register

Call Me

1:08

Student Orientation Registration

Name: iugu

ID: kjbli

Email: ygyogog

Gender: Male

Session: 2 Session

Orientation Activity: Campus Tour (RM5.00)

Activity: Team Building Activity (RM10.00)

Total Fee: RM105.00

Back