Experiment 2.3

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Branch: CSE **Section/Group: 607/A**
Semester: 6th **Date of Performance: 03/04/2023**
Subject Name: MAD LAB **Subject Code: 20CSP-356**

Aim:

Create an Android Application by using the Radio button.

Objective:

Android radio button is a widget that can have more than one option to choose from. The user can choose only one option at a time. Each option here refers to a radio button and all the options for the topic are together referred to as Radio Group. Hence, Radio Buttons are used inside a RadioGroup.

Code:

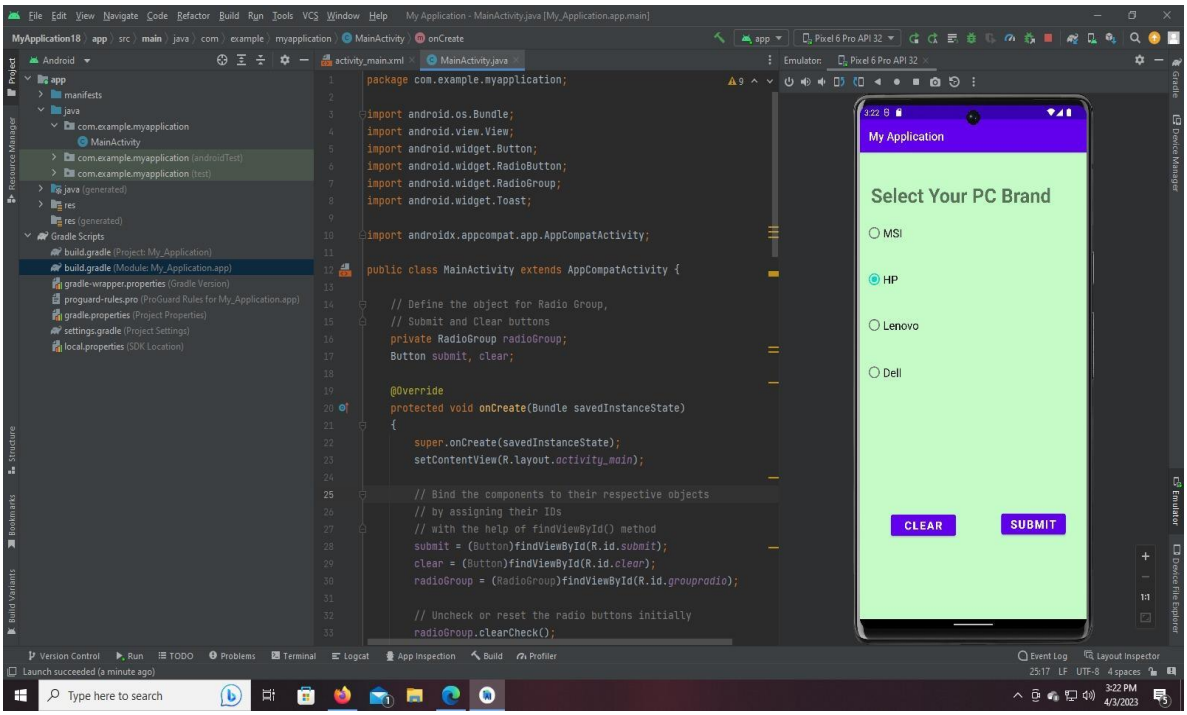
//Below is the code for MainActivity.java

```
package com.example.myapplication;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    // Define the object for Radio Group,
    // Submit and Clear buttons
    private RadioGroup radioGroup;
```

```
Button submit, clear;

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

    // Bind the components to their respective objects
    // by assigning their IDs
    // with the help of findViewById() method
    submit = (Button)findViewById(R.id.submit);
    clear = (Button)findViewById(R.id.clear);
    radioGroup = (RadioGroup)findViewById(R.id.groupradio);

    // Uncheck or reset the radio buttons initially
    radioGroup.clearCheck();

    // Add the Listener to the RadioGroup
    radioGroup.setOnCheckedChangeListener(
        new RadioGroup
            .OnCheckedChangeListener() {
        @Override

        // The flow will come here when
        // any of the radio buttons in the radioGroup
        // has been clicked

        // Check which radio button has been clicked
        public void onCheckedChanged(RadioGroup group,
                                     int checkedId)
        {

            // Get the selected Radio Button
            RadioButton
                radioButton
                = (RadioButton)group
                .findViewById(checkedId);
        }
    });

    // Add the Listener to the Submit Button
    submit.setOnClickListener(new View.OnClickListener() {

        @Override
        public void onClick(View v)
```

```
        {

            // When submit button is clicked,
            // Ge the Radio Button which is set
            // If no Radio Button is set, -1 will be returned
            int selectedId = radioGroup.getCheckedRadioButtonId();
            if (selectedId == -1) {
                Toast.makeText(MainActivity.this,
                               "No answer has been selected",
                               Toast.LENGTH_SHORT)
                     .show();
            }
            else {

                RadioButton radioButton
                     = (RadioButton)radioGroup
                     .findViewById(selectedId);

                // Now display the value of selected item
                // by the Toast message
                Toast.makeText(MainActivity.this,
                               radioButton.getText(),
                               Toast.LENGTH_SHORT)
                     .show();
            }
        }
    });
    // Add the Listener to the Submit Button
    clear.setOnClickListener(new View.OnClickListener() {

        @Override
        public void onClick(View v)
        {

            // Clear RadioGroup
            // i.e. reset all the Radio Buttons
            radioGroup.clearCheck();
        }
    });
  }
}
```

Output:


My Application - MainActivity.java [My_Application.app.main]
MainActivity.java
activity_main.xml
package com.example.myapplication;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;
public class MainActivity extends AppCompatActivity {
// Define the object for Radio Group,
// Submit and Clear buttons
private RadioGroup radioGroup;
Button submit, clear;
@Override
protected void onCreate(Bundle savedInstanceState)
{
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
// Bind the components to their respective objects
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submit = (Button)findViewById(R.id.submit);
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radioGroup = (RadioGroup)findViewById(R.id.groupradio);
// Uncheck or reset the radio buttons initially
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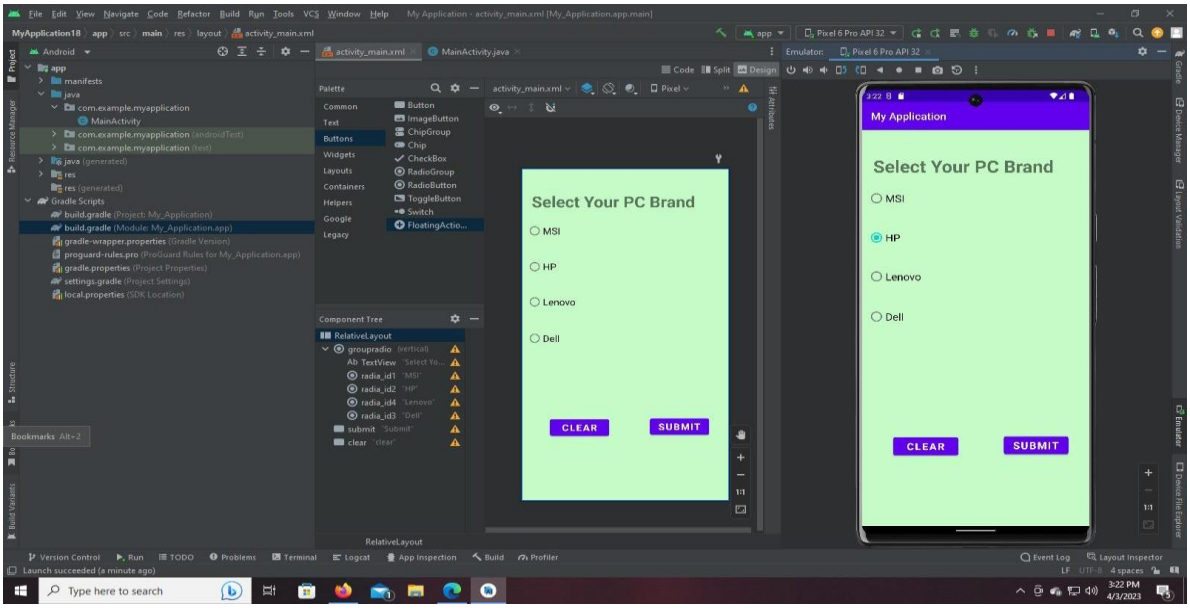
Emulator: Pixel 6 Pro API 32
My Application
Select Your PC Brand
MSI
HP
Lenovo
Dell
CLEAR
SUBMIT


My_Application - activity_main.xml [My_Application.app.main]
activity_main.xml
MainActivity.java
Palette
Component Tree
RelativeLayout
Select Your PC Brand
MSI
HP
Lenovo
Dell
CLEAR
SUBMIT

3:23
My Application
Select Your PC Brand
MSI
HP
Lenovo
Dell
CLEAR
SUBMIT
MSI