

Definition of Program: Create android application using Toast and RecyclerView.

Code:

MainActivity.kt:

```
package com.example.demoapp
```

```
import android.os.Bundle
```

```
import androidx.appcompat.app.AppCompatActivity
```

```
import androidx.recyclerview.widget.LinearLayoutManager
```

```
import androidx.recyclerview.widget.RecyclerView
```

```
class MainActivity : AppCompatActivity() {
```

```
    override fun onCreate(savedInstanceState: Bundle?) {
```

```
        super.onCreate(savedInstanceState)
```

```
        setContentView(R.layout.activity_main)
```

```
        val recyclerView = findViewById<RecyclerView>(R.id.recyclerView)
```

```
        val examList: MutableList<ExamItem> = ArrayList()
```

```
        examList.add( ExamItem("Physics Exam", "September 5, 2015", "Give Your Best",  
R.drawable.baseline_schedule_24, R.drawable.baseline_school_24) )
```

```
        examList.add( ExamItem("Chemistry Exam", "October 12, 2015", "You Can Do It",  
R.drawable.baseline_schedule_24, R.drawable.baseline_school_24) )
```

```
        examList.add( ExamItem("Biology Exam", "November 20, 2015", "Good Luck",  
R.drawable.baseline_schedule_24, R.drawable.baseline_school_24) )
```

```
        examList.add( ExamItem("Geography Exam", "December 3, 2015", "Be Prepared",  
R.drawable.baseline_schedule_24, R.drawable.baseline_school_24) )
```

```
        examList.add( ExamItem("Computer Science", "January 15, 2016", "Keep Calm",  
R.drawable.baseline_schedule_24, R.drawable.baseline_school_24) )
```

```
        recyclerView.layoutManager = LinearLayoutManager(this)
```

```
        val adapter = MyAdapter(examList)
```

```
        recyclerView.adapter = adapter
```

```
    }
```

```
}
```

MyAdapter.kt:

```
package com.example.demoapp
```

```
import android.view.LayoutInflater
```

```
import android.view.View
```

```
import android.view.ViewGroup
import android.widget.ImageView
import android.widget.TextView
import android.widget.Toast
import androidx.recyclerview.widget.RecyclerView

class MyAdapter(private val examList: List<ExamItem>) :
    RecyclerView.Adapter<MyAdapter.MyViewHolder>() {

    override fun onCreateViewHolder(parent: ViewGroup, viewType: Int): MyViewHolder
    {
        val view = LayoutInflater.from(parent.context).inflate(R.layout.exam_card, parent,
        false)
        return MyViewHolder(view)
    }

    override fun onBindViewHolder(holder: MyViewHolder, position: Int) {
        val examItem = examList[position]

        holder.examName.text = examItem.examName
        holder.examDate.text = examItem.examDate
        holder.examMessage.text = examItem.examMessage

        if (examItem.examPic != null)
            holder.examPic.setImageResource(examItem.examPic!!)

        if (examItem.examPic2 != null)
            holder.examPic2.setImageResource(examItem.examPic2!!)

        holder.itemView.setOnClickListener {
            Toast.makeText(holder.itemView.context, "Clicked on ${examItem.examName}",
            Toast.LENGTH_SHORT).show()
        }
    }

    override fun getItemCount(): Int {
        return examList.size
    }

    inner class MyViewHolder(itemView: View) : RecyclerView.ViewHolder(itemView) {
        val examName: TextView = itemView.findViewById(R.id.examName)
        val examDate: TextView = itemView.findViewById(R.id.examDate)
        val examMessage: TextView = itemView.findViewById(R.id.examMessage)
```



```

        val examPic: ImageView = itemView.findViewById(R.id.examPic)
        val examPic2: ImageView = itemView.findViewById(R.id.examPic2)
    }
}

```

ExamItem.kt

```
package com.example.demoapp
```

```

class ExamItem {
    var examName: String? = null
    var examDate: String? = null
    var examMessage: String? = null
    var examPic: Int? = null
    var examPic2: Int? = null

    constructor(examName:String, examDate:String, examMessage:String, examPic:Int,
examPic2:Int){
        this.examName = examName
        this.examDate = examDate
        this.examMessage = examMessage
        this.examPic = examPic
        this.examPic2 = examPic2
    }
}

```

activity_main.xml:

```

<?xml version="1.0" encoding="utf-8"?>
<ScrollView
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" >

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical" >

        <TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"

```

```
        android:text="Exam Schedule"
        android:textAlignment="center"
        android:background="@android:color/darker_gray"
        android:paddingTop="54sp"
        android:paddingBottom="20sp"
        android:textSize="24sp"/>

<androidx.recyclerview.widget.RecyclerView
    android:nestedScrollingEnabled="false"
    android:id="@+id/recyclerView"
    android:layout_width="match_parent"
    android:overScrollMode="never"
    android:layout_height="wrap_content"/>

</LinearLayout>
</ScrollView>

exam_card.xml:
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout_height="105dp"
    android:clickable="true"
    android:focusable="true"
    android:background="?attr/selectableItemBackground">

    <TextView
        android:layout_width="200dp"
        android:id="@+id/examName"
        android:textSize="16sp"
        android:layout_marginStart="20dp"
        android:text="First Exam"
        android:textColor="@color/black"
        android:layout_marginEnd="20dp"
        android:maxLines="1"
        android:layout_marginTop="15dp"
        android:layout_height="wrap_content"/>

    <ImageView
        android:id="@+id/examPic"
        android:layout_width="20dp"
```

```
android:layout_height="20dp"
android:layout_below="@+id/examName"
android:layout_marginStart="20dp"
android:layout_marginTop="7dp"
app:srcCompat="@drawable/baseline_schedule_24"/>
```

```
<TextView
    android:id="@+id/examDate"
    android:layout_toEndOf="@+id/examPic"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/examName"
    android:layout_marginTop="5dp"
    android:layout_marginEnd="20dp"
    android:layout_marginStart="10dp"
    android:gravity="center"
    android:text="May 23, 2015"
    android:textSize="16sp"/>
```

```
<ImageView
    android:id="@+id/examPic2"
    android:layout_width="20dp"
    android:layout_height="20dp"
    android:layout_below="@+id/examDate"
    android:layout_marginStart="20dp"
    android:layout_marginTop="7dp"
    app:srcCompat="@drawable/baseline_school_24"/>
```

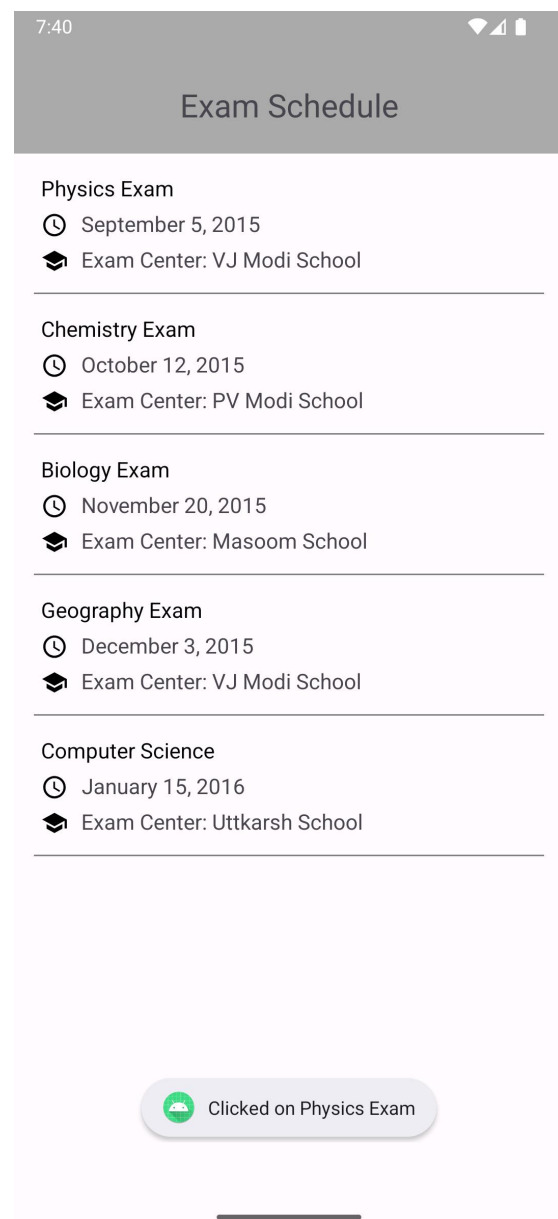
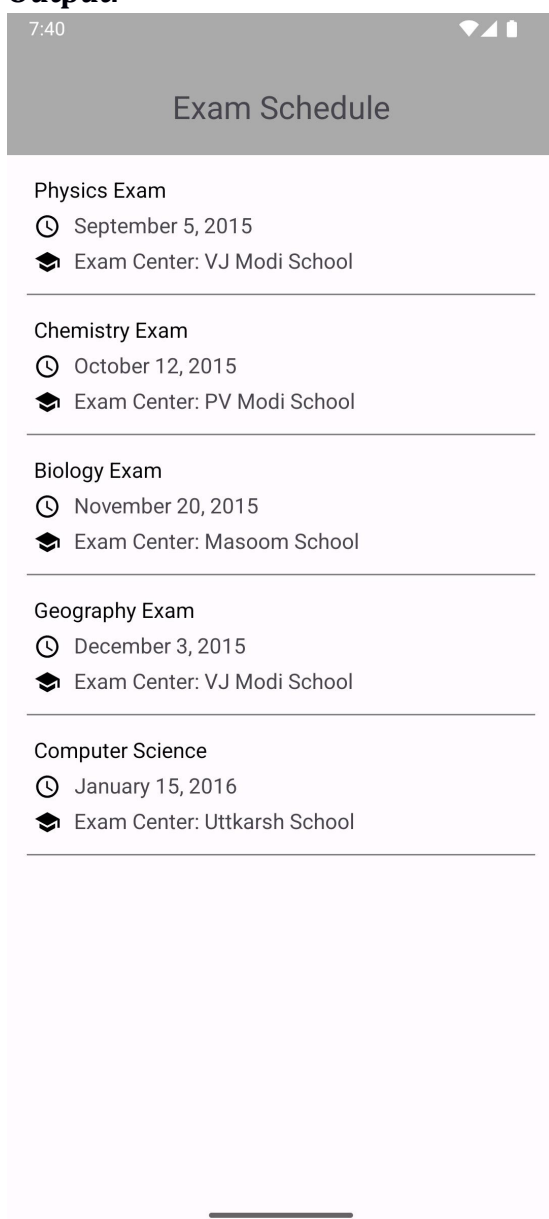
```
<TextView
    android:id="@+id/examMessage"
    android:layout_toEndOf="@+id/examPic2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/examDate"
    android:layout_marginEnd="20dp"
    android:layout_marginTop="5dp"
    android:layout_marginStart="10dp"
    android:gravity="center"
    android:text="Best Of Luck"
    android:textSize="16sp"/>
```

```
<TextView
    android:id="@+id/border2"
    android:layout_width="match_parent"
```

```
android:layout_height="1dp"
android:layout_marginStart="15dp"
android:layout_marginEnd="15dp"
android:layout_alignParentBottom="true"
android:background="#808080"/>
```

</RelativeLayout>

Output:



7:41

Exam Schedule


Physics Exam
🕒 September 5, 2015
📍 Exam Center: VJ Modi School

Chemistry Exam
🕒 October 12, 2015
📍 Exam Center: PV Modi School

Biology Exam
🕒 November 20, 2015
📍 Exam Center: Masoom School

Geography Exam
🕒 December 3, 2015
📍 Exam Center: VJ Modi School

Computer Science
🕒 January 15, 2016
📍 Exam Center: Uttkarsh School

 Clicked on Computer Science

7:42

Exam Schedule


Physics Exam
🕒 September 5, 2015
📍 Exam Center: VJ Modi School

Chemistry Exam
🕒 October 12, 2015
📍 Exam Center: PV Modi School

Biology Exam
🕒 November 20, 2015
📍 Exam Center: Masoom School

Geography Exam
🕒 December 3, 2015
📍 Exam Center: VJ Modi School

Computer Science
🕒 January 15, 2016
📍 Exam Center: Uttkarsh School

 Clicked on Biology Exam