EXPERIMENT NO. 8

AIM: Write an application that draws basic graphical primitives on the screen.

THEORY:

A typical user interface of an android application consists of action bar and the application content area. • Main Action Bar

• View Control

• Content Area

• Split Action Bar

The basic unit of android application is the activity. A UI is defined in an xml file. During compilation, each element in the XML is compiled into equivalent Android GUI class with attributes represented by methods.

View and ViewGroups:

An activity is consist of views. A view is just a widget that appears on the screen. It could be button etc. One or more views can be grouped together into one GroupView. Example of ViewGroup includes layouts.

Types of layout:

There are many types of layout. Some of which are listed below –

• Linear Layout

• Absolute Layout

• Table Layout

• Frame Layout

• Relative Layout

The basic building block for user interface is a View object which is created from the View class and

occupies a rectangular area on the screen and is responsible for drawing and event handling. View is

the base class for widgets, which are used to create interactive UI components like buttons, text fields,

etc. The ViewGroup is a subclass of View and provides invisible container that hold other Views or other ViewGroups and define their layout properties.

At third level we have different layouts which are subclasses of ViewGroup class and a typical layout defines the visual structure for an Android user interface and can be created either at run time using View/ViewGroup objects or you can declare your layout using simple XML file main_layout.xml which is located in the res/layout folder of your project.

CODE:

object Components {	const val group =

```kotlin
const val ratingBar = ":libraries:rating- bar"
const val dialogs = ":libraries:dialogs"
const val imageSlider = ":libraries:image-slider"
const val phoneNumber = ":libraries:phonenumber"
const val toolbar = ":libraries:toolbar"
const val suggestionInputView = ":libraries:suggestion-input-view"
const val cardInputView = ":libraries:card-input-view"
const val quantityPickerView = ":libraries:quantity-pickerview"
const val timelineView = ":libraries:timeline- view"
const val touchDelegator = ":libraries:touchdelegator"
const val fitOptionMessageView = ":libraries:fit-optionmessage-view"
}
https://github.com/vinaynpp/mcc object ComponentVersions {
const val toolbarVersion = "2.0.5"
const val suggestionInputViewVersion = "1.0.14"
const val ratingBarVersion = "1.0.2"
const val imageSliderVersion = "1.0.8"
const val phoneNumberVersion = "1.0.2"
const val dialogsVersion = "1.2.5"
const val cardInputViewVersion = "1.1.2"
const val quantityPickerViewVersion = "1.2.4"
const val timelineViewVersion = "1.0.0"
const val touchDelegatorVersion = "1.0.0"
const val fitOptionMessageView = "1.0.0"
}
object Configs {
const val compileSdkVersion = 29
const val minSdkVersion = 21
const val targetSdkVersion = 29
const val buildToolsVersion = "29.0.3"
const val applicationId = "com.trendyol.uicomponents"

"com.trendyol.ui-components"
}

object Dependencies {
const val kotlinJDK = "org.jetbrains.kotlin:kotlin-stdlibjdk8:1.3.61"
const val coreKtx = "androidx.core:core-ktx:1.3.2"
const val appCompat = "androidx.appcompat:appcompat:1.2.0"
const val material = "com.google.android.material:material:1.4.0"
const val constraintLayout = "androidx.constraintlayout:constraintlayout:2.0.4"

const val recyclerView = "androidx.recyclerview:recyclerview:1.2.0"
const val circleIndicator = "com.github.MertNYuksel:CircleIndicator:2a2e973374"
const val glide = "com.github.bumptech.glide:glide:4.11.0"
const val glideCompiler = "com.github.bumptech.glide:compiler:4.11.0"
const val lifecycleExtensions = "androidx.lifecycle:lifecycle-extensions:2.1.0"
const val lifecycleCompiler = "androidx.lifecycle:lifecycle- compiler:2.1.0" }
object Plugins {
const val androidGradlePlugin = "com.android.tools.build:gradle:4.2.1"
const val kotlinGradlePlugin = "org.jetbrains.kotlin:kotlin-gradleplugin:1.5.0"
const val mavenGradlePlugin = "com.github.dcendents:android-maven-gradleplugin:2.1"
const val androidApplication = "com.android.application"
const val androidLibrary = "com.android.library"
const val kotlinAndroid = "kotlin-android"
const val kotlinKapt = "kotlin-kapt"
const val kotlinParcelize = "kotlin-parcelize"
const val androidMaven = "com.github.dcendents.android-maven"
}
```

OUTPUT: