**MOBILE APPLICATION DEVELOPMENT**

**(MAD)**

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ASSIGNMENT NO.5

# Assignment Name :Write an application that draws basic graphical primitives on the screen.

Code For Manifest File :

<?*xml version*="1.0" *encoding*="utf-8"?>

<manifest *xmlns:android*="http://schemas.android.com/apk/res/android"

*package*="com.example.myapplication\_7">

<application

*android:allowBackup*="true"

*android:icon*="@mipmap/ic\_launcher"

*android:label*="@string/app\_name"

*android:roundIcon*="@mipmap/ic\_launcher\_round"

*android:supportsRtl*="true"

*android:theme*="@style/Theme.MyApplication\_7">

<activity *android:name*=".MainActivity">

<intent-filter>

<action *android:name*="android.intent.action.MAIN" />

<category *android:name*="android.intent.category.LAUNCHER" />

</intent-filter>

</activity>

</application>

</manifest>

Code For JAVA File : (MainActivity.java)

*package* com.example.myapplication\_7;

*import* androidx.appcompat.app.AppCompatActivity;

*import* android.graphics.Color;

*import* android.os.Bundle;

*public class* MainActivity *extends* AppCompatActivity {

myCanvas myCanvas;

@Override

*protected void* onCreate(Bundle savedInstanceState) {

*super*.onCreate(savedInstanceState);

myCanvas = *new* myCanvas(*this*);

myCanvas.setBackgroundColor(Color.*LTGRAY*);

setContentView(myCanvas);

}

}

Made another java class : myCanvas.java

Code For JAVA : (myCanvas.java)

*package* com.example.myapplication\_7;

*import* android.content.Context;

*import* android.graphics.Canvas;

*import* android.graphics.Color;

*import* android.graphics.Paint;

*import* android.graphics.Path;

*import* android.os.Build;

*import* android.view.View;

*import* androidx.annotation.RequiresApi;

*public class* myCanvas *extends* View {

Paint paint,paint1;

Path path,path1,path2;

*int* ax,ay,half;

*int* x,y,halfW;

*public* myCanvas(Context context) {

*super*(context);

paint = *new* Paint();

paint1 = *new* Paint();

path = *new* Path();

path1 = *new* Path();

path2 = *new* Path();

}

@RequiresApi(api = Build.VERSION\_CODES.*LOLLIPOP*)

@Override

*protected void* onDraw(Canvas canvas) {

*super*.onDraw(canvas);

paint.setColor(Color.*BLACK*);

paint.setTextSize(50);

*/\* Rectangle \*/*

paint1.setColor(Color.*YELLOW*);

canvas.drawText("Rectangle", 100, 150, paint);

canvas.drawRect(100, 200, 350, 700, paint1);

*/\* Square \*/*

paint1.setColor(Color.*CYAN*);

canvas.drawText("Square", 120, 800, paint);

canvas.drawRect(50, 850, 350, 1150, paint1);

*/\* Circle \*/*

paint1.setColor(Color.*GREEN*);

canvas.drawText("Circle", 520, 150, paint);

canvas.drawCircle(600, 350, 150,paint1);

*/\* Triangle \*/*

half=180;

ax=600;

ay=950;

paint1.setColor(Color.*RED*);

canvas.drawText("Triangle", 520, 700, paint);

path.moveTo(ax,ay- half);

path.lineTo(ax - half, ay + half);

path.lineTo(ax + half, ay + half);

path.lineTo( ax,ay - half);

path.close();

canvas.drawPath(path, paint1);

*/\* Line \*/*

canvas.drawText("Line", 880, 600, paint);

canvas.drawLine(920, 650, 920, 1150, paint);

*/\* Arc \*/*

paint1.setColor(Color.*MAGENTA*);

canvas.drawText("Arc", 850, 150, paint);

canvas.drawArc(590,10,1020,450,0F,60F,*true*,paint1);

*/\* Rhombus \*/*

x=320;

y=1500;

halfW=270;

paint1.setColor(Color.*BLUE*);

canvas.drawText("Rhombus", 200, 1850, paint);

path1.moveTo(x, y + halfW); *// Top*

path1.lineTo(x - halfW, y); *// Left*

path1.lineTo(x, y - halfW); *// Bottom*

path1.lineTo(x + halfW, y); *// Right*

path1.lineTo(x, y + halfW); *// Back to Top*

path1.close();

canvas.drawPath(path1, paint1);

*//*

paint1.setTextSize(80);

paint1.setColor(Color.*MAGENTA*);

paint1.setStrokeWidth(5);

paint1.setStyle(Paint.Style.*STROKE*);

paint.setColor(Color.*MAGENTA*);

paint.setTextSize(120);

paint.setStrokeWidth(5);

paint.setStyle(Paint.Style.*STROKE*);

canvas.drawText("Shapes using", 599, 1500, paint1);

canvas.drawText("CANVAS", 600, 1640, paint);

}

}

Code For XMl File : (activity\_main.xml)

<?*xml version*="1.0" *encoding*="utf-8"?>

<androidx.constraintlayout.widget.ConstraintLayout *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">

</androidx.constraintlayout.widget.ConstraintLayout>

SCREENSHOTS :

