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| A picture containing drawing, stop, room  Description automatically generated | **Advanced Mobile Programming**  **Practical #3** | | |
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| **Name** | **Aniket Gupta** | **Roll Number** | **21302B0053** |
| **Subject/Course:** | **Advanced Mobile Programming** | | |
| **Topic** | **Programming Activities and Fragments** | | |
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| **Activity Life Cycle** | | | |
| 5.a) To demonstrate the working of Activity and its Life Cycle. | | | |
| **MainActivity.kt:**  **package** com.example.amp\_p31  **import** android.support.v7.app.AppCompatActivity **import** android.os.Bundle **import** android.widget.Toast  **class** MainActivity : AppCompatActivity() {  **override fun** onCreate(savedInstanceState: Bundle?) {  **super**.onCreate(savedInstanceState)  setContentView(R.layout.*activity\_main*)   **val** Toast= Toast.makeText(**this**,**"ON\_CLICK FUNCTIONS "**, Toast.*LENGTH\_LONG*).show()  }   **override fun** onStart() {  **super**.onStart()  **val** Toast= Toast.makeText(**this**,**"ON\_START CLICK "**, Toast.*LENGTH\_LONG*).show()  }   **override fun** onPause() {  **super**.onPause()  **val** Toast= Toast.makeText(**this**,**"ON\_PAUSE CLICK "**, Toast.*LENGTH\_LONG*).show()  }   **override fun** onResume() {  **super**.onResume()  **val** Toast= Toast.makeText(**this**,**"ON\_RESUME CLICK "**, Toast.*LENGTH\_LONG*).show()  }  **override fun** onRestart() {  **super**.onRestart()  **val** Toast= Toast.makeText(**this**,**"ON\_RESTART CLICK "**, Toast.*LENGTH\_LONG*).show()  }   **override fun** onStop() {  **super**.onStop()  **val** Toast= Toast.makeText(**this**,**"ON\_STOP CLICK "**, Toast.*LENGTH\_LONG*).show()  }   **override fun** onDestroy() {  **super**.onDestroy()  **val** Toast= Toast.makeText(**this**,**"ON\_DESTROY CLICK "**, Toast.*LENGTH\_LONG*).show()  } }  OUTPUT: | | | |
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| **Fragment Life Cycle** | | | |
| 5.b) To demonstrate the working of Fragments and its Life Cycle. | | | |
| **activity\_main.xml:**  *<?***xml version="1.0" encoding="utf-8"***?>* <**android.support.constraint.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"**>   <**LinearLayout**  **android:id="@+id/linearLayout"**  **android:layout\_width="412dp"**  **android:layout\_height="273dp"**  **android:orientation="horizontal"**  **app:layout\_constraintBottom\_toTopOf="@+id/frameLayout"**  **app:layout\_constraintEnd\_toEndOf="parent"**  **app:layout\_constraintHorizontal\_bias="1.0"**  **app:layout\_constraintStart\_toStartOf="parent"**  **app:layout\_constraintTop\_toTopOf="parent"**  **app:layout\_constraintVertical\_bias="0.023"**>   <**Button**  **android:id="@+id/button"**  **android:layout\_width="wrap\_content"**  **android:layout\_height="wrap\_content"**  **android:layout\_weight="1"**  **android:onClick="onClickLogin"**  **android:text="Login"** />   <**Button**  **android:id="@+id/button2"**  **android:layout\_width="wrap\_content"**  **android:layout\_height="wrap\_content"**  **android:layout\_weight="1"**  **android:onClick="onClickSignup"**  **android:text="Signup"** />  </**LinearLayout**>   <**FrameLayout**  **android:id="@+id/frameLayout"**  **android:layout\_width="403dp"**  **android:layout\_height="453dp"**  **app:layout\_constraintBottom\_toBottomOf="parent"**  **app:layout\_constraintEnd\_toEndOf="parent"**  **app:layout\_constraintStart\_toStartOf="parent"**>  </**FrameLayout**> </**android.support.constraint.ConstraintLayout**>  **Login.xml:**  *<?***xml version="1.0" encoding="utf-8"***?>* <**FrameLayout**  **xmlns:android="http://schemas.android.com/apk/res/android"**  **xmlns:tools="http://schemas.android.com/tools"**  **android:layout\_width="match\_parent"**  **android:layout\_height="match\_parent"**  **android:layout\_gravity="center"**  **android:background="@color/teal\_200"**  **tools:context=".login"**>   <**TextView**  **android:id="@+id/textView"**  **android:layout\_width="match\_parent"**  **android:layout\_height="171dp"**  **android:background="@color/black"**  **android:fontFamily="sans-serif"**  **android:text="Login"**  **android:textAlignment="center"**  **android:textColor="@color/purple\_500"**  **android:textSize="96sp"**  **android:textStyle="bold"** /> </**FrameLayout**>  **Signup.xml:**  *<?***xml version="1.0" encoding="utf-8"***?>* <**FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"**  **xmlns:tools="http://schemas.android.com/tools"**  **android:layout\_width="match\_parent"**  **android:layout\_height="match\_parent"**  **android:layout\_gravity="center"**  **android:background="@color/purple\_200"**  **tools:context=".signup"**>   <**TextView**  **android:id="@+id/textView"**  **android:layout\_width="match\_parent"**  **android:layout\_height="144dp"**  **android:background="#FFFFFF"**  **android:text="Signup"**  **android:textAlignment="center"**  **android:textColor="@color/purple\_200"**  **android:textSize="96sp"**  **android:textStyle="bold"** /> </**FrameLayout**>  **MainActivity.kt:**  **package** com.example.amp\_p32 **import** android.support.v7.app.AppCompatActivity **import** android.os.Bundle **import** android.view.View  **class** MainActivity : AppCompatActivity() {  **private val fragmgr** = *supportFragmentManager* **override fun** onCreate(savedInstanceState: Bundle?) {  **super**.onCreate(savedInstanceState)  setContentView(R.layout.*activity\_main*)  }  **fun** onClickLogin(view: View){  **val** fragTrans = **fragmgr**.beginTransaction()  fragTrans.add(R.id.*frameLayout*, login())  fragTrans.addToBackStack(**null**)  fragTrans.commit()  }  **fun** onClickSignup(view: View){  **val** fragTrans = **fragmgr**.beginTransaction()  fragTrans.add(R.id.*frameLayout*, signup())  fragTrans.addToBackStack(**null**)  fragTrans.commit()  } }  **Signup.kt:**  **package** com.example.amp\_p32  **import** android.os.Bundle **import** android.support.v4.app.Fragment **import** android.view.LayoutInflater **import** android.view.View **import** android.view.ViewGroup  **class** signup: Fragment() {  **override fun** onCreateView(  inflater: LayoutInflater,  container: ViewGroup?,  savedInstanceState: Bundle?  ): View? {  **return** inflater.inflate(R.layout.*signup*, container, **false**)  } }  **Login.kt:**  **package** com.example.amp\_p32  **import** android.os.Bundle **import** android.support.v4.app.Fragment **import** android.view.LayoutInflater **import** android.view.View **import** android.view.ViewGroup  **class** login: Fragment() {  **override fun** onCreateView(  inflater: LayoutInflater,  container: ViewGroup?,  savedInstanceState: Bundle?  ): View? {  **return** inflater.inflate(R.layout.*login*, container,**false**)  } }  **OUTPUT:** | | | |