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Course: MCS 272 Mobile Application (App-Cycle)

Output:

1. Welcome_App Created



2. Welcome_App Started



Fortune Cookie

Fortune Cookie

Welcome



START

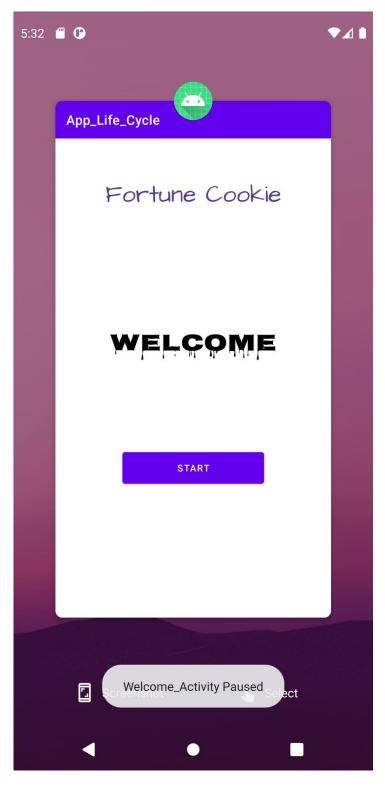
START

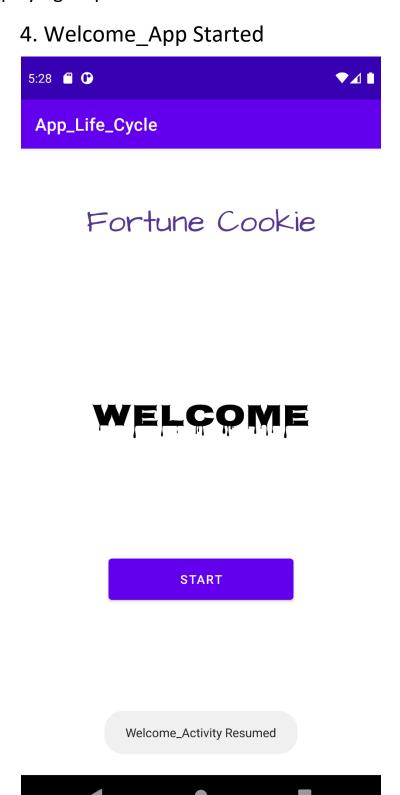
Welcome_Activity Created

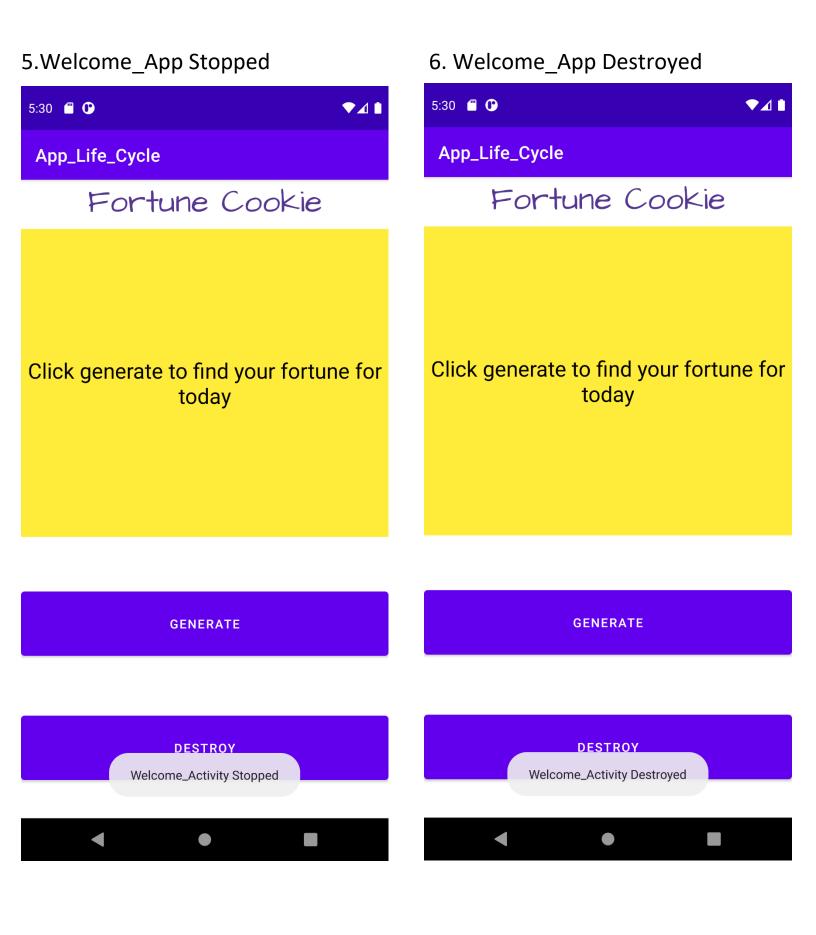
Welcome_Activity Started

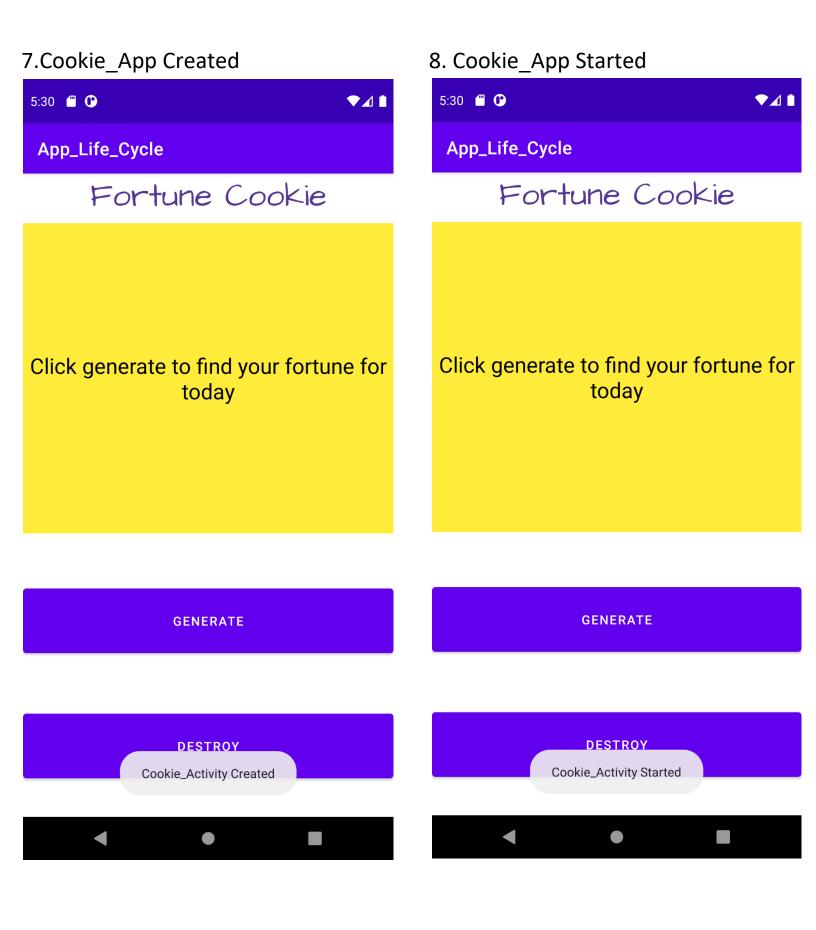
Note: Activity 2 welcome screen displays avatar of some students from 2 mcs. Clicking on a specific avatar switches to activity 3 displaying respective avatars details.

3.Welcome_App Paused



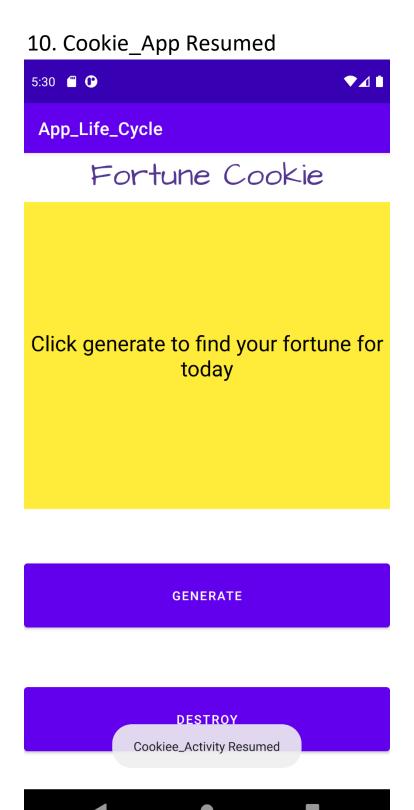




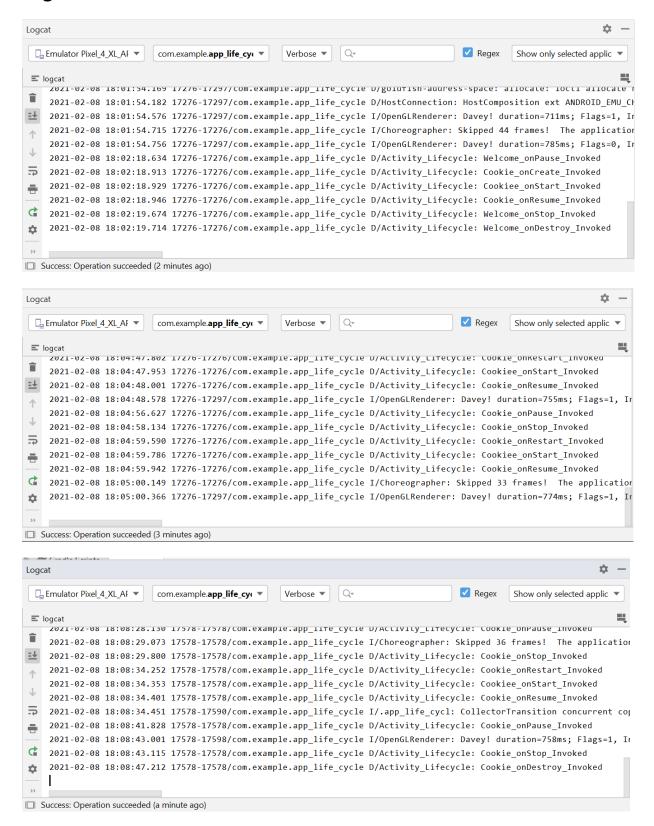


9.Cookie_App Paused





Log-Cat



The code used in the Main Activity, XML layout is attached below for reference.

```
1 <?xml version="1.0" encoding="utf-8"?>
 2 <androidx.constraintlayout.widget.ConstraintLayout xmlns:</pre>
   android="http://schemas.android.com/apk/res/android"
       xmlns:app="http://schemas.android.com/apk/res-auto"
3
       xmlns:tools="http://schemas.android.com/tools"
4
       android:layout_width="match_parent"
 5
       android:layout height="match parent"
6
       tools:context=".MainActivity">
7
8
9
       <LinearLayout</pre>
           android:layout_width="match_parent"
10
           android:layout_height="match_parent"
11
           android:orientation="vertical"
12
13
           app:layout constraintBottom toBottomOf="parent"
           app:layout_constraintEnd_toEndOf="parent"
14
           app:layout constraintHorizontal bias="0.0"
15
           app:layout constraintStart toStartOf="parent"
16
           app:layout_constraintTop_toTopOf="parent"
17
           app:layout_constraintVertical_bias="0.0">
18
19
20
           <TextView
               android:id="@+id/textView3"
21
               android:layout width="match parent"
22
               android:layout_height="169dp"
23
               android:background="#FFFFFF"
24
               android:fontFamily="@font/architects daughter"
25
               android:gravity="center"
26
               android:text="Fortune Cookie"
27
               android:textAlignment="center"
28
               android:textColor="#543691"
29
               android:textSize="36sp" />
30
31
32
           <TextView
33
               android:id="@+id/fort"
               android:layout width="match parent"
34
               android:layout height="279dp"
35
               android:background="#FFFFFF"
36
               android:fontFamily="@font/nosifer"
37
38
               android:gravity="center"
               android:text="Welcome"
39
               android:textAlignment="center"
40
               android:textColor="#000000"
41
42
               android:textSize="36sp" />
43
44
           <Button
               android:id="@+id/button"
45
```

```
android:layout_width="match_parent"
46
               android:layout height="87dp"
47
               android:insetLeft="100dp"
48
               android:insetTop="20dp"
49
               android:insetRight="100dp"
50
               android:insetBottom="20dp"
51
52
               android:onClick="start button"
               android:text="Start" />
53
54
55
       </LinearLayout>
56 </androidx.constraintlayout.widget.ConstraintLayout>
```

```
1 package com.example.app_life cycle;
2
 3 import androidx.appcompat.app.AppCompatActivity;
4
5 import android.content.Intent;
6 import android.os.Bundle;
7 import android.util.Log;
8 import android.view.View;
9 import android.widget.Toast;
10
11 public class MainActivity extends AppCompatActivity {
12
13
       @Override
       protected void onCreate(Bundle savedInstanceState) {
14
15
           super.onCreate(savedInstanceState);
16
           setContentView(R.layout.activity main);
           Log.d("Activity_Lifecycle","
17
  Welcome onCreate Invoked");
           Toast.makeText(MainActivity.this, "Welcome_Activity
18
    Created",Toast.LENGTH SHORT).show();
19
       }
20
21
       public void start button(View v)
22
       {
               Intent i1 = new Intent(getBaseContext(),
23
  MainActivity2.class);
               startActivity(i1);
24
               finish();
25
26
       }
27
       @Override
28
29
       protected void onStart()
30
31
           super.onStart();
32
           Log.d("Activity Lifecycle", "Welcome on Start Invoked
   ");
           Toast.makeText(MainActivity.this, "Welcome_Activity
33
    Started", Toast.LENGTH SHORT).show();
34
       }
35
36
       @Override
       protected void onResume()
37
38
       {
39
           super.onResume();
           Log.d("Activity_Lifecycle","
40
   Welcome onResume Invoked");
```

```
Toast.makeText(MainActivity.this, "Welcome Activity
41
    Resumed", Toast.LENGTH SHORT).show();
42
       }
43
44
       @Override
45
       protected void onPause()
46
47
           super.onPause();
48
           Log.d("Activity_Lifecycle","Welcome_onPause_Invoked
   ");
49
           Toast.makeText(MainActivity.this, "Welcome_Activity
    Paused", Toast.LENGTH_SHORT).show();
50
51
52
       @Override
       protected void onStop()
53
54
55
           super.onStop();
           Log.d("Activity_Lifecycle","Welcome_onStop_Invoked"
56
   );
57
           Toast.makeText(MainActivity.this, "Welcome Activity
    Stopped", Toast.LENGTH_SHORT).show();
58
59
60
       @Override
       protected void onRestart()
61
62
       {
           super.onRestart();
63
           Log.d("Activity_Lifecycle","
64
   Welcome onRestart Invoked");
65
           Toast.makeText(MainActivity.this, "Welcome Activity
    Restarted", Toast.LENGTH_SHORT).show();
66
       }
67
68
       @Override
69
       protected void onDestroy()
70
71
           super.onDestroy();
72
           Log.d("Activity_Lifecycle","
   Welcome_onDestroy_Invoked");
73
           Toast.makeText(MainActivity.this, "Welcome Activity
    Destroyed", Toast.LENGTH_SHORT).show();
74
       }
75 }
```

```
1 <?xml version="1.0" encoding="utf-8"?>
 2 <androidx.constraintlayout.widget.ConstraintLayout xmlns:</pre>
   android="http://schemas.android.com/apk/res/android"
       xmlns:app="http://schemas.android.com/apk/res-auto"
3
       xmlns:tools="http://schemas.android.com/tools"
4
 5
       android:layout_width="match_parent"
       android:layout height="match parent"
6
       tools:context=".MainActivity2">
7
8
9
       <LinearLayout</pre>
           android:layout_width="match_parent"
10
           android:layout_height="match_parent"
11
           android:orientation="vertical"
12
           app:layout constraintBottom toBottomOf="parent"
13
           app:layout_constraintEnd_toEndOf="parent"
14
           app:layout constraintHorizontal bias="0.0"
15
           app:layout_constraintStart_toStartOf="parent"
16
           app:layout_constraintTop_toTopOf="parent"
17
           app:layout_constraintVertical_bias="0.0">
18
19
20
           <TextView
               android:id="@+id/textView3"
21
22
               android:layout width="match parent"
               android:layout_height="55dp"
23
               android:background="#FFFFFF"
24
               android:fontFamily="@font/architects daughter"
25
               android:text="Fortune Cookie"
26
               android:textAlignment="center"
27
               android:textColor="#543691"
28
               android:textSize="36sp" />
29
30
           <TextView
31
               android:id="@+id/fort"
32
               android:layout_width="match_parent"
33
               android:layout height="345dp"
34
               android:background="#FFEB39"
35
               android:gravity="center"
36
               android:text="Click generate to find your
37
  fortune for today"
               android:textAlignment="center"
38
               android:textColor="#000000"
39
               android:textSize="24sp" />
40
41
42
           <TextView
               android:layout_width="match_parent"
43
               android:layout height="55dp" />
44
```

```
45
46
           <Button
47
               android:id="@+id/generate"
               android:layout_width="match_parent"
48
               android:layout_height="84dp"
49
               android:onClick="generate"
50
51
               android:text="Generate" />
52
53
           <TextView
               android:id="@+id/textView6"
54
               android:layout_width="match_parent"
55
               android:layout_height="55dp" />
56
57
58
           <Button
59
               android:id="@+id/destroy"
               android:layout width="match parent"
60
               android:layout_height="84dp"
61
               android:onClick="destroy"
62
               android:text="Destroy" />
63
64
65
       </LinearLayout>
66 </androidx.constraintlayout.widget.ConstraintLayout>
```

```
1 package com.example.app life cycle;
3 import androidx.appcompat.app.AppCompatActivity;
5 import android.os.Bundle;
6 import android.util.Log;
7 import android.view.View;
8 import android.widget.TextView;
9 import android.widget.Toast;
10
11 import java.util.Random;
12
13 public class MainActivity2 extends AppCompatActivity {
14
15
       private String messages[] = {
               "Love is flower-like.\n" +
16
               "Friendship is like a sheltering tree.",
17
               "You are loved.",
18
19
               "I may not be where I want to be,\n" +
20
                       "but I'm thankful for not being\n" +
21
22
                       "where I was.",
23
               "There are things in life that you can't\n" +
24
                       "control, and aren't supposed to.",
25
               "I'd never lived before your love.",
26
27
               "With you,\n" +
28
                       "I am home.",
29
30
               "You make it look easy.\n" +
31
                       "The fact is it's really\n" +
32
                       "hard and you do it anyway.",
33
34
               "Distractions will look like\n" +
35
                       "opportunities when you don't\n" +
36
37
                       "know where you are going.",
38
39
               "Two things you will\n" +
                       "never have to chase:\n" +
40
41
                       "True friends and true love.",
42
               "God will never give you\n" +
43
                       "anything you can't handle,\n" +
44
                       "so don't stress.",
45
46
```

```
"Some things have to be\n" +
47
48
                       "believed to be seen.",
49
               "Believe something and the\n" +
50
                       "universe is on its way to\n" +
51
                       "being changed.",
52
53
               "Our words have power, \n" +
54
                       "but our actions shape our lives.",
55
56
               "Love yourself first and\n" +
57
58
                       "then everything falls into line.",
59
               "Authenticity is the daily\n" +
60
                       "practice of letting go of who\n" +
61
                       "we think we're supposed to be\n" +
62
                       "and embracing who we are.",
63
64
               "The only impossible journey\n" +
65
                       "is the one you never begin.",
66
67
68
               "Adjust, chill out, and be happy.",
69
70
               "Today you are you! That is truer\n" +
                       "than true! There is no one alive\n" +
71
72
                       "who is you-er than you!"
73
       };
74
       Random rand = new Random();
75
       Boolean start = true;
76
       private TextView main disp;
77
78
       @Override
79
       protected void onCreate(Bundle savedInstanceState) {
           super.onCreate(savedInstanceState);
80
           setContentView(R.layout.activity main2);
81
           main_disp = (TextView) findViewById(R.id.fort);
82
           Log.d("Activity Lifecycle", "Cookie onCreate Invoked
83
   ");
84
           Toast.makeText(MainActivity2.this, "Cookie_Activity
    Created", Toast.LENGTH SHORT).show();
85
86
       public void generate(View v)
87
88
89
           int rand_int1 = rand.nextInt(15);
           main disp.setText(messages[rand int1]);
90
```

```
91
 92
 93
        public void destroy(View v)
 94
 95
            finish();
 96
            System.exit(0);
 97
 98
        @Override
 99
        protected void onStart()
100
101
            super.onStart();
102
            Log.d("Activity_Lifecycle","
    Cookiee onStart Invoked");
            Toast.makeText(MainActivity2.this, "
103
    Cookie_Activity Started", Toast.LENGTH_SHORT).show();
104
105
106
        @Override
107
        protected void onResume()
108
109
            super.onResume();
            Log.d("Activity_Lifecycle","
110
    Cookie onResume Invoked");
            Toast.makeText(MainActivity2.this, "
111
    Cookiee Activity Resumed", Toast.LENGTH SHORT).show();
112
113
        @Override
114
        protected void onPause()
115
116
        {
            super.onPause();
117
            Log.d("Activity_Lifecycle","Cookie_onPause_Invoked
118
    ");
            Toast.makeText(MainActivity2.this, "
119
    Cookiee Activity Paused", Toast.LENGTH SHORT).show();
120
        }
121
122
        @Override
        protected void onStop()
123
124
        {
125
            super.onStop();
            Log.d("Activity_Lifecycle","Cookie_onStop_Invoked"
126
    );
            Toast.makeText(MainActivity2.this, "
127
    Cookie_Activity Stopped", Toast.LENGTH_SHORT).show();
128
        }
```

```
129
130
        @Override
        protected void onRestart()
131
132
133
            super.onRestart();
            Log.d("Activity_Lifecycle","
134
    Cookie onRestart Invoked");
135
            Toast.makeText(MainActivity2.this, "
    Cookie_Activity Restarted", Toast.LENGTH_SHORT).show();
136
137
138
        @Override
        protected void onDestroy()
139
140
        {
141
            super.onDestroy();
            Log.d("Activity_Lifecycle","
142
    Cookie_onDestroy_Invoked");
            Toast.makeText(MainActivity2.this, "
143
    Cookie_Activity Destroyed", Toast.LENGTH_SHORT).show();
144
145 }
146
```