MOBILE COMPUTING PROGRAMMING ASSIGNMENT

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ASSIGNMENT 1

AIM: Create "Hello World" application. That will display "Hello World" in the middle of the screen in the red color with white background

XML: (activity_main.xml)
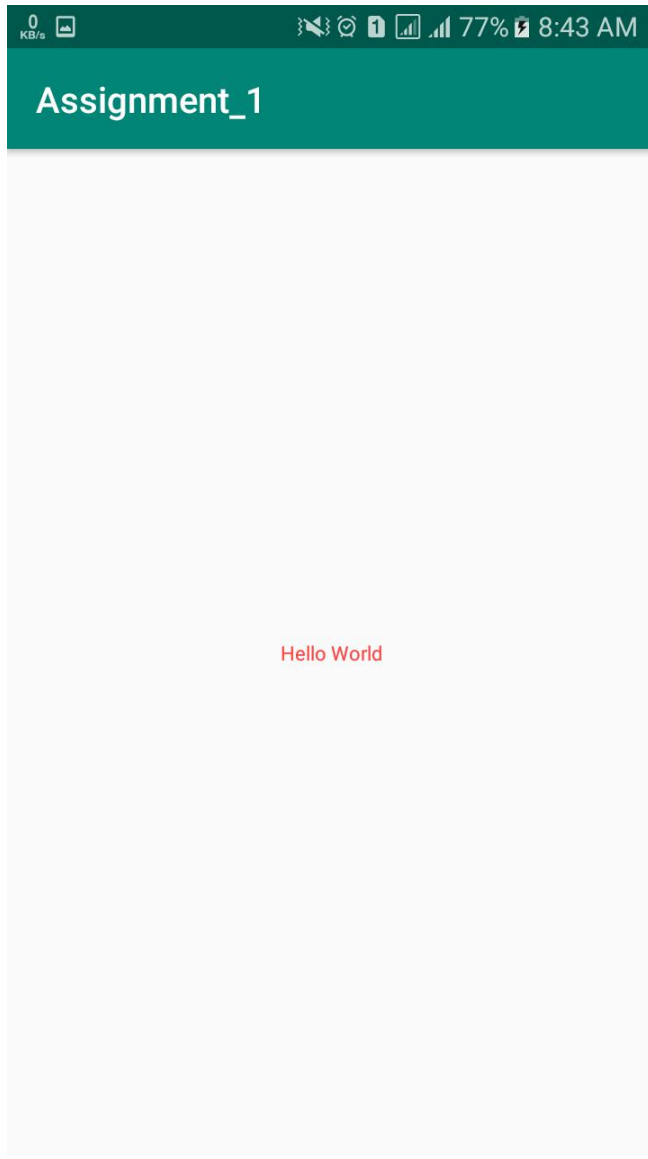
```xml
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        android:textColor="@android:color/holo_red_light"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</android.support.constraint.ConstraintLayout>
```

JAVA FILE:

```java
package com.example.assignment_1;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
}
```

Screenshot :

ASSIGNMENT 2

AIM: To understand Activity, Intent

a) Create sample application with login module.(Check username and password)

b) On successful login, go to next screen. And on falling login, alert, user using Toast. Also pass username to next screen.

XML: (activity_main.xml)

```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">
    <RelativeLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent">
        <TextView
            android:id="@+id/title"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_centerHorizontal="true"
            android:layout_marginStart="15dp"
            android:layout_marginTop="15dp"
            android:layout_marginEnd="15dp"
            android:layout_marginBottom="15dp"
            android:padding="5dp"
            android:text="Login App" />
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_marginTop="65dp"
            android:orientation="vertical">
            <LinearLayout
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:orientation="horizontal">
                <TextView
                    android:id="@+id/textView3"
                    android:layout_width="wrap_content"
```

```xml
            android:layout_height="wrap_content"
            android:layout_weight="0"
            android:text="Username" />
        <EditText
            android:id="@+id/username"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginStart="20dp"
            android:layout_weight="0"
            android:ems="10"
            android:inputType="textPersonName"
            android:padding="10dp"
            android:text="" />
    </LinearLayout>
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal">
        <TextView
            android:id="@+id/textView5"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="0"
            android:text="Password" />
        <EditText
            android:id="@+id/password"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginStart="20dp"
            android:layout_weight="0"
            android:ems="10"
            android:inputType="textPassword" />
    </LinearLayout>
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="70dp"
        android:orientation="horizontal"
        android:padding="25dp">
        <Button
            android:id="@+id/button"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="Login" />
    </LinearLayout>
```

```xml
        </LinearLayout>
    </RelativeLayout>
</android.support.constraint.ConstraintLayout>
```

XML: (activity_main2.xml)

```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=".Main2Activity">
    <TextView
        android:id="@+id/display"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="50dp"
        android:layout_marginStart="176dp"
        android:layout_marginTop="168dp"
        android:layout_marginEnd="8dp"
        android:layout_marginBottom="8dp"
        android:padding="50dp"
        android:text=" "
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.408" />
</android.support.constraint.ConstraintLayout>
```

JAVA CODE : (MainActivity.java)

```java
package com.example.login;
import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    EditText password;
    EditText username;
```

```java
    Button button;
    String str,str2;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        password = (EditText)findViewById(R.id.password);
        username = (EditText)findViewById(R.id.username);
        button = (Button)findViewById(R.id.button);
        button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                str = username.getText().toString();
                str2 = password.getText().toString();
                if(str.equals("admin") && str2.equals("admin")) {
                    Intent i = new Intent(MainActivity.this, Main2Activity.class);
                    i.putExtra("username", str);
                    startActivity(i);
                } else {
                    Toast.makeText(getApplicationContext(), "Invalid credinals ! Try again.",
Toast.LENGTH_LONG).show();
                }
            }
        });
    }
}
```

JAVA CODE : (Main2Activity.java)

```java
package com.example.login;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.TextView;
public class Main2Activity extends AppCompatActivity {
    TextView textView;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        textView = (TextView)findViewById(R.id.display);
        textView.setText("User : "+getIntent().getExtras().getString("username"));
    }
}
```

Screenshot :