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8CS39

Android Programming Lab. (8CS6)

Q2. Create an application to call specific entered number by user in the EditText.

Answer

Main-activity.xml code

```xml
<RelativeLayout
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"
    tools:context=".MainActivity" >

    <TextView
        android:id="@+id/textView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentLeft="true"
        android:layout_alignParentTop="true"
        android:layout_marginTop="56dp"
        android:text="Username"

android:textAppearance="?android:attr/textAppearanceMedium" />

    <EditText
```

```xml
        android:id="@+id/editText1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignBottom="@+id/textView1"
        android:layout_alignParentRight="true"
        android:ems="10"
        android:inputType="text" />

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignRight="@+id/textView1"
        android:layout_below="@+id/textView1"
        android:layout_marginTop="48dp"
        android:text="Password"

android:textAppearance="?android:attr/textAppearanceMedium" />

    <EditText
        android:id="@+id/editText2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignBaseline="@+id/textView2"
        android:layout_alignBottom="@+id/textView2"
        android:layout_alignLeft="@+id/editText1"
        android:ems="10"
        android:inputType="textPassword" >

        <requestFocus />
    </EditText>
```

```xml
<Button
    android:id="@+id/button1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/editText2"
    android:layout_marginTop="68dp"
    android:layout_toLeftOf="@+id/editText2"
    android:text="Login" />

<Button
    android:id="@+id/button2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignBaseline="@+id/button1"
    android:layout_alignBottom="@+id/button1"
    android:layout_alignLeft="@+id/editText2"
    android:layout_marginLeft="42dp"
    android:text="Cancel"/>

</RelativeLayout>
```

MainApplication.java Code

```java
package com.example.loginform;

import com.example.loginform.R;
import android.os.Bundle;
import android.annotation.SuppressLint;
import android.app.Activity;
import android.text.Editable;
import android.text.TextWatcher;
import android.view.*;
import android.view.View.OnClickListener;
import android.widget.*;

public class MainActivity extends Activity implements
OnClickListener,TextWatcher{

        EditText name;
        EditText pass;
        Button login;
        Button cancel;


    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        name=(EditText )findViewById(R.id.editText1);
        name.addTextChangedListener(this);
        pass=(EditText )findViewById(R.id.editText2);
```

```java
        pass.addTextChangedListener(this);
        login=(Button )findViewById(R.id.button1);
        cancel=(Button )findViewById(R.id.button2);
        login.setOnClickListener(this);
        cancel.setOnClickListener(this);
        login.setEnabled(false);
        cancel.setEnabled(true);
    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {

        getMenuInflater().inflate(R.menu.activity_main, menu);
        return true;
    }

        @SuppressLint("ShowToast") @Override
        public void onClick(View v) {

        }

        public void afterTextChanged(Editable arg0) {

        }

        public void beforeTextChanged(CharSequence arg0, int
arg1, int arg2,int arg3) {

        }
```

```java
public void onTextChanged(CharSequence arg0, int arg1, int arg2, int arg3) {

        String na=name.getText().toString();
        String pa=pass.getText().toString();

        if(na.equals("chaitu") && pa.equals("root"))
        {
                Button btn = (Button) findViewById(R.id.button1);
                btn.setEnabled(true)}}}
```

Q3. Write short note on services in android.

Services in Android are a special component that facilitates an application to run in the background in order to perform long-running operation tasks. The prime aim of a service is to ensure that the application remains active in the background so that the user can operate multiple applications at the same time. A user-interface is not desirable for android services as it is designed to operate long-running processes without any user intervention. A service can run continuously in the background even if the application is closed or the user switches to another application. Further, application components can bind itself to service to carry out inter-process communication(IPC). There is a major difference between android services and threads, one must not be confused between the two. Thread is a feature provided by the Operating system to allow the user to perform operations in the background. While service is an android component that performs a long-running operation about which the user might not be aware of as it does not have UI.