Practical Related Questions

1.List the basic methods used in an android AsyncTaskclass.

- doInBackground() : This method contains the code which needs to be executed in background. ...
- onPreExecute() : This method contains the code which is executed before the background processing starts.

2.Differentiate between AsyncTask and Services.

	Service	IntentService	AsyncTask
When to use ?	Task with no UI, but shouldn't be too long. Use threads within service for long tasks.	- Long task **usually** with no communication to main thread. **(Update)**- If communication is required, can use main thread handler or broadcast intents - When callbacks are needed (Intent triggered tasks).	- Small task having to communicate with main thread. - For tasks in parallel use multiple instances OR Executor
Trigger	Call to method onStartService()	Intent	Call to method execute()
Triggered From (thread)	Any thread	Main Thread (Intent is received on main thread and then worker thread is spawed)	Main Thread
Runs On (thread)	Main Thread	Separate worker thread	Worker thread. However, Main thread methods may be invoked in between to publish progress.
Limitations / Drawbacks	May block main thread	- Cannot run tasks in parallel. - Multiple intents are queued on the same worker thread.	- one instance can only be executed once (hence cannot run in a loop) - Must be created and executed from the Main thread

3.Name the method used, if a process takes a long time to do its work?

DoInBackground

Exercise

DBHelper.java

```
package com.example.practical26;

import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;
import android.widget.Toast;

public class DBHelper extends SQLiteOpenHelper {
    SQLiteDatabase db;
    public DBHelper(Context context) {
        super(context, "prac26", null, 1);
        db = getWritableDatabase();
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        db.execSQL("CREATE TABLE IF NOT EXISTS temp_data(msg TEXT)");
    }

    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {

    }
    public void insert_row(String txt){
        db.execSQL("INSERT INTO temp_data VALUES('"+txt+"')");

    }

}
```

Insert.java

```
package com.example.practical26;

import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;
import android.widget.Toast;
```

```
public class DBHelper extends SQLiteOpenHelper {
    SQLiteDatabase db;
    public DBHelper(Context context) {
        super(context, "prac26", null, 1);
        db = getWritableDatabase();
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        db.execSQL("CREATE TABLE IF NOT EXISTS temp_data(msg TEXT)");
    }

    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {

    }
    public void insert_row(String txt){
        db.execSQL("INSERT INTO temp_data VALUES('"+txt+"')");

    }

}
```

MainAcitivity.java

```
package com.example.practical26;



import android.app.Activity;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class MainActivity extends Activity {
    EditText data;
    Button btn;
```

```
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        btn=(Button) findViewById(R.id.btn);
        data=(EditText) findViewById(R.id.data);
        DBHelper db = new DBHelper(MainActivity.this);

        btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String txt= String.valueOf(data.getText());
                Insert insert=new Insert(db,txt);
                Toast.makeText(MainActivity.this, "data_inserted", Toast.LENGTH_S
HORT).show();

            }
        });

    }
}
```

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    android:padding="50dp"
    tools:context=".MainActivity"
    android:orientation="vertical"
    >

    <EditText
        android:id="@+id/data"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="50dp"
        android:width="300dp" />
```

```
    <Button
        android:id="@+id/btn"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:text="Enter data in DB" />
</LinearLayout>
```