

University Mohammed V	Lab manipulation	Academic year
FACULTY OF SCIENCES	Android services	2017/2018
	IntentService	
	Master IAO–Semester 3	
	Mobile and cloud computing	
	Pr. Oussama REDA	

Introduction

IntentService is a base class for [Services](#) that handle asynchronous requests (expressed as [android.content.Intent](#)s) on demand. Clients send requests through [android.content.Context.startService\(android.content.Intent\)](#) calls; the service is started as needed, handles each Intent in turn using a worker thread, and stops itself when it runs out of work.

This "work queue processor" pattern is commonly used to offload tasks from an application's main thread. The IntentService class exists to simplify this pattern and take care of the mechanics. To use it, extend IntentService and implement [onHandleIntent\(android.content.Intent\)](#). IntentService will receive the Intents, launch a worker thread, and stop the service as appropriate. All requests are handled on a single worker thread -- they may take as long as necessary (and will not block the application's main loop), but only one request will be processed at a time.

In this lab we create an activity that starts the IntentService which will post the result will be posted as a system-notification.
The user asks for the Nth prime by clicking on a button and the application returns its value. Application's functionalities are given in comments.

```
public class PrimeMainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        .....
        .....
        // Create an Intent to be sent to the appropriate class;
        // Prepare intent to carry data to the appropriate class;
        // Trigger the appropriate Service class to calculate Nth prime
        // value;
    }
}
```

```
public class PrimeIntentService extends IntentService {  
  
    // Creation of the IntentService goes here  
  
    @Override  
    protected void onHandleIntent(Intent intent) {  
  
        // Extract Data to process from Intent  
        // Calculate Nth Prime;  
        // Display the result to the User;  
    }  
}
```