14. Develop a program to implement service.

In android, Service is a component which keeps an app running in the background to perform long running operations based on our requirements. For Service, we don't have any user interface and it will run the apps in background like playing the music in background or handle network operations when the user is in different app.

A service is a component which runs in the background without direct interaction with the user. As the service has no user interface, it is not bound to the lifecycle of an activity.

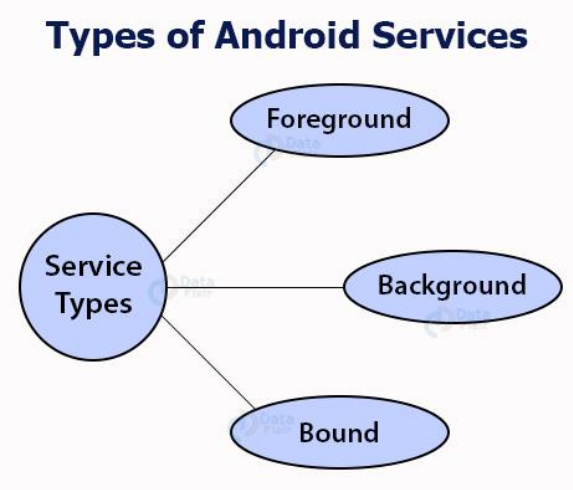
Services are used for repetitive and potentially long running operations, i.e., Internet downloads, checking for new data, data processing, updating content providers. Services run with a higher priority than inactive or invisible activities and therefore it is less likely that the Android system terminates them. Services can also be configured to be restarted if they get terminated by the Android system once sufficient system resources are available again.

There are the three different types of services:

1. Foreground service

2. Background service

3. Bound service



1.Foreground Services – are those services that are visible to the users. The users can interact with them at ease and track what's happening. These services continue to run even when users are using other applications.

Example -- Music Player and Downloading.

2. Background Services – These services run in the background, such that the user can't see or access them. These are the tasks that don't need the user to know them.

Ex - Syncing and Storing data can be the best example.

3. Bound Service – runs as long as some other application component is bound to it. Many components can bind to one service at a time, but once they all unbind, the service will destroy.

To bind an application component to the service, **bindService()** is used.

Theory questions-

1. Draw the lifecycle of service (unbounded and bounded services)
2. Differentiate between bounded service and unbounded service. (2 Points)
3. Describe startService() and bindService()methods.

Practical questions-

1. Write a program to start a Wi-Fi using service.

2. Write a program to display the following output.