Android Design: FSM



Android Design: Pseudo-code

Start

On Create of main activity

Instantiate shared Preferences, location Manager, and the web view

Load the web view with our website

Check In

Get the device IP and MAC address

Request a connection with the server

Request a single location update

Request Connection

Get the server IP and Port from the shared preferences.

Instantiate a client socket passing the IP and Port as parameters to the constructor

Request Location update

Check enabled providers.   
 If network provider enabled use network provider

If GPS provider enabled but network provider is not enabled, use GPS provider

Else use the Passive provider

Instantiate a Location listener

Implement the onLocationChanged callback

Get the longitude, latitude and time from the location object

Write the longitude, latitude, ip address, mac address and time on the socket

Location manager request single update(provider to use, location listner)

Write to socket

Instantiate output stream

Set out put stream to the socket’s output stream

Write the passed string parameter onto the os stream

Close socket

Config

Inflate the config fragment where user can enter the server’s IP address, Port number, frequency of location updates and minimum distance change for a location update

Start Service

Calls On Create of our Service class

Starts the thread which this service will run on

Calls on start command of service class

Request connection

Instantiate shared preferences object

Get the device IP and MAC address

Start location discovery

Returns Start sticky so that the service will continue running even when the application is closed.

Start Location Discovery

Instantiate the location manager object

If network provider enabled use network provider

If GPS provider enabled but network provider is not enabled, use GPS provider

Else use the Passive provider

This will continuously listen for location updates from the location manager

Instantiate a Location listener

Implement the onLocationChanged callback

Get the longitude, latitude and time from the location object

Write the longitude, latitude, ip address, mac address and time on the socket

Request Location Updates(provider, min time, min distance, location listener) - Continuously get location updates

Stop Service

Calls on Destroy of service class

Stop the service thread

Close the client socket