Wardrive - "Are You Being Intercepted?"
README

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December 8, 2014

1 Architecture

The System Architecture is shown in Figure 1.

2 Setup Instructions for Starting a New Server

1. Install Nginx

```
sudo apt-get install nginx
sudo service start nginx
```

   Make sure that you link the"nginx config" file and "uwsgi parameters" for the application to nginx. They are given in the code repository.

2. Install Postgres

```
sudo apt-get install postgresql postgresql-contrib
```

3. Install Redis

```
sudo apt-get install redis-server
```

4. Install Django

   Use this link for installing django the right way
   http://www.jeffknupp.com/blog/2013/12/18/starting-a-django-16-project-the-right-way/

   Gist of the above article:

   - Install pip
     Check *http://pip.readthedocs.org/en/latest/installing.html*
   - Install Django and Virtualenv

```
sudo pip install virtualenv
pip install virtualenvwrapper
```

   - Add these entries in *.bashrc*

```
export WORKON_HOME=~/.Envs
source /usr/local/bin/virtualenvwrapper.sh
```

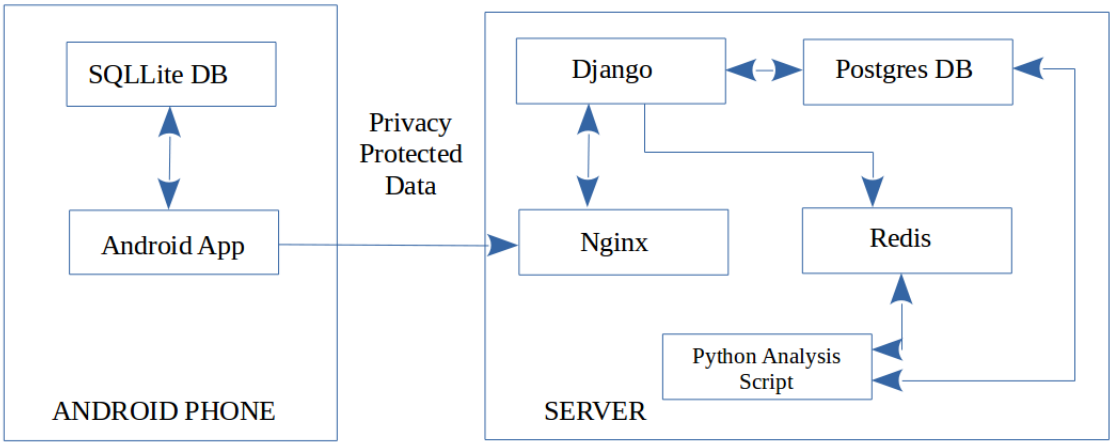

Figure 1: System Architecture

- Create virtual env for "wardrive"

```
mkvirtualenv wardrive
workon wardrive
```

5. Project setup

   Clone the repository from the GitHub

```
git clone git@bitbucket.org:uf_sensei/watchtower14.git
```

   Once you are done with this basic setup, run the following command to install all the requirements for the project.

```
pip install -t requirements.txt
```

   Make sure that you are already in the virtualenv created previously ("wardrive"), and have linked the correct *requirements.txt* file from the project.

6. Starting the Server

   - Start Redis Server

```
sudo service start redis-server
```

   - Start django using the uwsgi config file

```
uwsgi --ini wardrive_uwsgi.ini
```

   - Start the analysis script as a daemon

```
python Analysis.py daemon
```

Django currently supports 3 pages:

- '/' - just shows the url for save data. No need in production scenarios
- '/save_data' - This url is used to store the data into the postgres server.
- '/read_data' - To display analysed data - only for demo purposes, Needs to be disabled in the production environment. This shows all the live data received and analysed. Near real-time.

Changes can be made to the *views.py* file in the logger folder. URL changes needs to be done in the *urls.py* file.

3 Android

1. Import the code to Eclipse
2. Dependencies include *appcombat_v7*. Import it from the android project extras - available with adt extras.
3. Files and their functionalities
    - HomeFragment.java - It deals with the fetching logs and displaying them on the screen.
    - MainActivity.java - Initial setup file which creates 3 fragments - Home , Logs and Credits
    - Method1Fragment.java - Activity file for the Logs tab of the application
    - Method2Fragment.java - Activity file for the Credits tab
    - DBAdapter.java - Adapter to sqlite DB of Android
    - GatherStats.java - Contains all the functions used in generating logs
    - Stats.java - Stats (statistics) class file
    - StatsDataSource.java - Database source for sqlite
    - TabsAdapter.java - For retrieving the 3 tabs viz. Home, Logs and Credits
    - AppController.java - Volley dependency file
    - JSONDataClass.java - Volley file to send logs to server