**Crowdometer by TG**

**Server Requirements**

* Windows Server 2012 R2
* Python
  + Flask
  + pyrebase
* Matlab with Image Processing and Computer Vision Products Installed

**Raspberry Pi Requirements**

* Python
* Camera

**Database Solution**

* Firebase

**Hosting Solution**

* Windows Azure Virtual Machine

**Server Functions**

* Crowd Detection using Matlab
* Admin Panel to view previous data

**Raspbery Pi Client Functions**

* Take pictures for server

**Mobile App Functions**

* View latest density information
* View past density information

**Server Setup Instructions**

* pip install -r Requirements.txt

**Mobile App Build Instructions**

* npm install -g cordova ionic
* ionic build android

**Running Instructions**

* Start the server using 'python server.py'
* Setup Raspberry Pi to take picture every 5 minutes using cron
* View the app to see the latest readings or check the admin panel to view history