Project 13 – Feet of Delivery and pick-up Vehicle management System

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1 THE ENVIRONMENT

Table 1.1: Programming resources

Programming languages	Python,JavaScript
Editors	gedit
IDE	Eclipse
Databases	PostgreSQL
UI Frameworks	Bootstrap, CSS, HTML
Documentation	TexStudio
Version Control	Git/Github

2 REQUIREMENTS ANALYSIS

- Make a website for managing delivery trucks
  - The website should serve as a management and tracking system for the fleet of vehicles
  - There are two main types of users, the dispatcher and a driver
  - Both types of users will use a desktop version of the website

  - The dispatcher should be able to see all available trucks and all non-available trucks and should enter the destination, type of goods, duration of trip and ultimately assign a driver to a destination
  - Algorithms for determining the driver, and other variables on the system should be researched/developed and implemented

- Find project data or make dummy data on fleet of delivery vehicles
- Design the back end structure and front end interface
- Implement the design
- Unit test the system as progress is being made

2.1 BACK–END : LINDA, PHUMZILE

- make a database and populate it
- implement algorithms which can calculate things related to the front end, such as:
  - scheduling
  - capacity
  - goods transferred/pickup
- set up a server
- link database to server
- link front end to server
- write unit tests

2.2 FRONT END : KESSIGAN, SHEENA

- Make user interfaces for the different users
  - Choose a bootstrap template and make minor modifications
  - Plot the views and visualisations using JavaScript libraries such as d3, google charts, am charts on the template Users: For each user there is a User Interface based on the design:
    * Program
    * scheduling
    * Dispatcher (inputs the variables so the algorithms can run and return a result)
    * capacity
    * goods transferred/pickup

    - location
    - Truck driver
    - schedule
    - goods transferred/pickup
    - location
- Write unit tests

3 INPUT /OUTPUT IDENTIFICATION

Table 3.1: Expected Inputs and Outputs

	INPUT	OUTPUT
Scheduling,Capacity,Goods transferred/Pickup	dispatch point destination point date dimensions time	driver vehicle route