**Scrum Product Backlog for Wits Cab Fleet System:**

1. Scrum Roles
   1. Product owner
      1. This can be a business man who would like to his or her customers to have an easier system of getting transportation and to also reach his cabs. In this project case, the product owner is Wits Cab Business (The Software Engineering Lecture who came up with the requirements of this project), which would like to make itself accessible to customers and would also like customers to have an easy access to their transport system through internet.

The product owner should interact with the following people in order to finalize his product requirements:

**Users and stakeholders:**

* + 1. Customers, that is passengers (Wits students and wits lecturers).
* They can book a cab and also pay for it through the system.
* They can interact with their drivers.
* They can view the pricing of different cabs and locations.
  + 1. Agents (Administrators)
       - They would have an easy access to the stored details of the drivers and customers, which they can use to put user updates in the system.
       - They can get customer details from the system and contact the customers directly in case of delays or if anything went wrong.
    2. Drivers
  1. Scrum master
* Roles:
  + Plan and implement daily scrum meetings
  + Sprint planning meetings
  + Check with the product owner what he needs in the project
  + Make sure the team works on the important requirements of the product owner
* Analysis according to the project given:
  + In this project, the group was supposed to select a scrum master in order to meet the roles above, so that the needs of the product owner can be fully met and the team can work efficiently.
  + Future recommendations: Either Sello or Danielle can be tasked to become a scrum master in order to follow the agile process of managing the project completely.
  + The work division was done and discussed by the whole group but there was no person to follow up on each team member's work or with the product owner.
  1. Scrum team
     1. Two Software developers
        + In this project the following people were responsible programming:
          1. Freekkie
          2. Stephen
        + Responsibilities: Programming back end and front end system for the website.
     2. Software report writer
        + Role: Write the official software reports and the user manuals of the product. This is to be shown to the product owner after implementations and testing's.
        + Two people responsible:
          1. Sello Molele
          2. Danielle
     3. Software analysts
        + Test the code that was implemented by the software developer.
        + In the future, they will also analyze data that is received and kept on a monthly basis, so as to give reports to the drivers and the businesses or agents.

1. Scrum Backlog (given as user stories)
   1. As a customer, I want to insert my
      * name,
      * surname
      * Identity number,
      * Current location
      * Destination

In order to get the

* + - The cost of transportation,
    - Then driver's name,
    - and the details of the cab that is coming to transport me.
  1. As the driver, I would like to
     + insert my user name and password and log into the system,
     + Then input my current location,
     + There after state if I am currently available or not to transport a customer or not.

In order to

* to make myself visible and accessible to the customer and to be monitored by Wits Cab system management.
  1. As an administrator, I would like to
     1. access the history of the driver's recorded trips,
     2. the customer details,
     3. the details of all the drivers,
     4. the daily total cost of the business

In order to

* ensure a healthy service to customers and to manage the drivers and the business as a whole for the product owner.

1. Sprint Planning (note that each sprint took a week out of a month to be completed)

3.1 Sprint 1

* The product owner gave the project title but did not give the details of the project needs or requirements.
* Sprint planning meeting: The team met to discuss their project and divided tasks, one pair was working on the front end and the other was working on the back end.
* Each pair did a research on their section and reported their section in the first software engineering lab.

3.2 Sprint 2

* Sprint planning meeting: Each team member was given a specific section to research and report on, as follows:
  + Details of Front end design structure was done by Frekkie
  + Front end documentation was done by Daniella
  + Details of Back end design structure was done by Stephen
  + Details of the Scrum for the project was done by Sello
* Each member reported on their sections in the second software engineering laboratory.

3.3 Sprint 3

* Sprint planning meeting: Programming the details of the requirements that were stated in sprint 2
* Each team member worked on the following:
  + Sello: Researched on SQLite and Apache installation and drafted a user manual.
  + Stephen: programmed and documented some of the backlogs of the back end.
  + Frekkie: programmed the front end of the Wits Cab Systems.
  + Daniella: Documented the report for the front end.
* A report was submitted in the third laboratory of software engineering.

3.4 Sprint 4

* Sprint planning meeting: Follow-up on each member's section and work and final submission plans for both the report and website code.
* Final implementation of the code for the back end and front end
* Each member wrote the sections of their work in the final group reports

1. Product Testing

* In this project the software developers that did the project code, were the same people that also tested their code effectively, to see if its giving the team the expected results.

1. Product release

* On the 8th of April 2016, the team of developers had a scrum review meeting in order to finalize the project code and the final report.
* Each member stated reported what they did in the projects in the form of a report.
* The team took four weeks to release the first version of the Wits Cab Website.