**Vision Document for “Aha – New Car Rental Project”**

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**1. Introduction**

In many years we have already had the traditional car rental services like Hertz, Avis, National, etc. In recent years, we have emerging had new taxi services that are using new technologies and combination of community sharing like Uber, Grab, Didi, etc

The team is coming up with those ideas to create a new approach for car rental service:

* To rent cars (like the traditional car rental services)
* Un-used or less-used cars are shared by the owner to the users (like shared cars of Uber, Grab or Didi, etc., but car owners do not need to drive).

Main advantages of this idea:

1. We do not need to spend much money to invest and buy cars at first.
2. Utilize unused or less-used cars to generate income for anyone who has those ones.
3. Create a new investment channel for anyone who wants to.
4. The car rental prices are much cheaper than the traditional car rental ones.

**2. Positioning**

**2.1 Problem Statement**

|  |  |
| --- | --- |
| The problem of | *There is a need of building a software tool that can be*   * *Manage efficient vehicles and create better car rental services (e.g reduce rental cost, improve service process...)* * *Manage better customers* * *And increase business services* |
| Affects | *Car rental services, customers usually rent cars, car owners who have car for rent* |
| the impact of which is | *Complexity of different kinds of cars and fee calculations of short-term and long-term rental.* |
| a successful solution would be | *Creating a new car rental service by combining technologies and new ways of car management.*  *Providing and competing new cheaper price scheme.* |

**2.2 Product Position Statement**

|  |  |
| --- | --- |
| For | *Any customer needs and rents a car* |
| Who | *This opportunity to connect between customer who rents a car and co-investor who contributes their cars* |
| The (product name) | *Transportation service* |
| That | *- Car rental fee is cheaper*  *- Initial investment is less* |
| Unlike | *The traditional car rental services* |
| Our product | *New and different way to manage and rent a car* |

**3. Stakeholder Descriptions**

**3.1 Stakeholder Summary**

|  |  |  |
| --- | --- | --- |
| **Name** | **Description** | **Responsibilities** |
| Admin | Manage this service, add, edit, delete car owners and their cars | Responsible for setting up, and managing the system. |
| Car Owner | Own and contribute cars to the service | Responsible to contribute cars to the service for rental. |
| Customer | Use this service to rent a car | Rent a car and pay car rental fee. |
| Developer | Develops the system based on the basis of given documents | Responsible for developing the system features, fixing bugs, and maintaining the system’s availability. |
| Tester | Tests and integrate the system | Responsible for quality of the system. |

**3.2 User Environment**

The project is planned as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Phase** | **Plan** | **Resource** |
| 1 | **Phase 1**: main Use Cases (priority 1) | 7/23/2018 – 8/1/2018 (3.5 weeks) | 4 resources |
| 2 | **Phase 2**: Use Cases (priority 2) | 3~4 weeks | 4 resources |
| 3 | **Phase 3**: Use Cases (priority 3) | 3~4 weeks | 4 resources |

The technologies/environments include:

* GUI JFX
* Core: Spring Boot
* DB: Mongo

**4. Product Overview**

**4.1 Product Perspective**

The first phases of project will be developed in-house without integrating with external services.

However, the final project will be integrated with Banks to verify credit cards of Customer and Car Owner.

**4.2 Assumptions and Dependencies**

For the prototype, the product is developed on laptops using Mongo DB.

For the reality, the product will be deployed on Linux and a commercial DB.

**4.3 Needs and Features**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Problem** | **Need** | **Priority** | **Features** | **Planned Release** |
| **Admin** | | | | | |
| 1 | Admin is able to manage owners | Owners must be reviewed and approved before they can add their cars | 1 | Admin must be able to review and approve owners |  |
| 2 | Admin is able to review and approve/disapprove owner’s cars and prices | Cars and their prices must be reviewed and approved before they are rented | 1 | Admin must be able to review and approve/disapprove cars, prices added by Owner |  |
|  |  |  |  |  |  |
| **Car Owner** | | | | | |
| 3 | Car Owner is able to manage their own information | Car Owner must be added their info before adding their cars | 1 | Car Owner must be able to add, edit, or delete their info |  |
| 4 | Car Owner is able to manage their cars and rental prices | Cars must be added before they can be rented | 1 | Car Owner must be able to add, edit, or delete their cars and prices based on model, size, manufacture year |  |
|  |  |  |  |  |  |
| **Customer** | | | | | |
| 5 | Cumbersome procedures and rental price is high | Need a list of available cars | 1 | The system will show a list of available cars and their offers to Customer |  |
|  |  | Need to rent a car | 1 | Customer can easily rent a car |  |
|  |  | Need a better service/procedure and compatible price | 2 | Customer can easily search and find available car that suitable to their need to rent, at a compatible price that they want |  |

**4.4 Alternatives and Competition**

The below table list competitors and alternatives that impact the product:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Aha** | **Traditional Car Rental** | **Uber, Grab, Didi** | **New self-driving car** |
| **Strength** | Low cost, low initial investment | Have market | Have market | Unknow |
| **Weakness** | No market yet | High cost, high initial investment | High cost | No market yet,  Still unreliable |

**5. Other Product Requirements**

* Security: User needs to be authenticated and authorized (for the prototype phase, no need this feature yet)
* Usability
* Scalability: the design of project with component-based increase performance and easy to scale out.
* Performance: the design of project with component-based increase performance and easy to scale out.