Vision Document – IT Guru

# Introduction

SmartCarShare, a cooperative owned by its members, provides inner-city residents with access to a diverse fleet of vehicles for various needs such as visiting friends, moving, or shopping. With partnerships with city councils securing designated parking spaces, each vehicle is stationed strategically. Members can rent vehicles for durations ranging from one hour to three days, with rental fees covering fuel and insurance costs. A comprehensive system upgrade initiative aims to streamline operations, with our team tasked to develop a custom-built system delivered in stages for seamless implementation. Our project scope includes gathering information on hardware requirements, network operating system capabilities, and email services, facilitated by discussions with stakeholders like CEO Mr. Ian Wilson to formulate the Vision Document.

# Positioning

## Problem Statement

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| --- | --- |
| The problem of | • SmartCarShare is lacking a system to manage the operations of car rentals such as fees, members and rental dates • System needs to be easy to understand/manage by workers of SmartCarShare  • System needs to be consistent so no information about rentals, cars and payments are lost during a rental  • System needs to be able to contact customers to keep them up to date and aware of any excess charges or the ending date of their rental |
| affects | * Students * The stakeholders (Customers, Members/Owners, Insurance Providers, Software Developers, City Council) * Young/Entry level workers |
| the impact of which is | • The manual management system currently used by SmartCarShare presents operational challenges, including inefficient vehicle booking, tracking, and member management. These limitations hinder service quality, member satisfaction, and scalability. |
| a successful solution would be | • A system/database that is easily managed and upkept  • A system that is reliable/has redundancies  • A system that functions automatically and with little maintenance  • A system that is highly scalable  • A system that is efficient  • Cross browser compatible website.  • Help students revise for tests and exams  • Fun and interactive revision for students |

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## Product Position Statement

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| --- | --- |
| For | • SmartCarShare |
| Who | • Need an automatic system to manage and keep track of rentals and rental information without manual work |
| The (product name) | • SmarterCarShare App |
| That | • The idea of the product is that it will be something that can run many rental operations without much manual labor involved  • Can track a large amount of data about members and rentals  • Make data easily accessible for employees and members alike  • The system will provide an efficient and futureproof way to keep track of and keep up to scale with all the data business needs of the company |
| Unlike | • (insert information about other database systems depending on what we go with here) |
| Our product | • A database that will run data processes automatically  • Will be linked to other SmartCarShare assets to automatically add new stock to the database  • Will have an automatic communications system for contacting customers about due dates and fees  • Will be easily accessible to employees to quickly gather records if needed  • Will be consistent and easily readable for easy future maintenance as to not disrupt the company for long periods of time |

# Stakeholder Descriptions

## Stakeholder Summary

| **Name** | **Description** | **Responsibilities** |
| --- | --- | --- |
| CEO (Mr. Ian Wilson) | Chief executive officer of SmartCarShare. | • Providing high-level guidance  • decision-making   * overall project oversight |
| Cooperative Members | Individuals who are part of the SmartCarShare cooperative | * adhering to terms and conditions * providing feedback for service improvement * Utilizing car-sharing services |
| City Councils | Municipal governing bodies responsible for providing parking spaces | • Allocating designated parking spaces  • negotiating agreements with SmartCarShare  • ensuring compliance with regulations |
| Development Team | Team responsible for designing and implementing the custom-built system | * Gathering requirements * system design * software development * testing * deployment * maintenance |

## User Environment

(Regarding the working environment of the target users, there are a number of people involved in completing multiple tasks. Firstly, you have the subject coordinators (teachers) who will be updating (adding/deleting) questions to the database. This doesn't change. The other target users are the students of Holmesglen. This changes only when students graduate from Holmesglen as they will no longer be users and won't have access to the system and games.

The task cycle for each user varies. It shouldn't take long for teachers to update questions – depends on how many they have to update since there is an unlimited amount. It's a simple process of logging in, selecting the subject, then the level of difficulty, then the question and answer that they want to edit, and then saving. However, for the student users the task cycle of playing a game will depend on their knowledge and how long they wish to play a game. Also, they need to register an account, but this is a one-time task. If they want to check their scores it is a quick process of logging into the website or checking their scores while they are playing (running score on both devices).

For unique environmental constraints, students will have the option to play a game on an android device.

The website and mobile applications will not be the only applications in use. There is the database and webserver that they need to integrate with them. All the data for the games and user details are to be stored in a MySQL database hosted on a webserver.)

In regard to the working environment of the target users, there won’t be many people involved as the database should largely handle things automatically, but there are a few people who will have to be/may be involved in the upkeep and processes of the database such as database engineers and developers who may need to preform maintenance occasionally.  
  
Employees and higher ups in the company will be able to interface with the database in order to access data if needed about a customer or a rental and potentially add/delete records from the database relating to members and stock .

The task cycle is slightly different for each type of user, for employees who need to grab or edit records it’s a matter of logging in and inputting the data/record or deleting the data/record, for higher ups the process would be similar but more information would be available to them and would more be centered around the running of the company and its employees.  
  
  
Product Overview

## Needs and Features

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| --- | --- | --- | --- |
| Need | Priority | Features | Planned Release |
| Level 1 of first game | High | The first playable level of the first game (definitions) | 4/9/15 |
| Level 2 of first game | High | Second playable level of the second game (crossword) | 4/9/15 |
| Level 3 of first game | High | Third and final playable level of each game (multiple choice) | 16/10/15 |
| Level 1 of second game | Low | The first playable level of the second game (definitions) | 13/11/15 |
| Level 2 of second game | Low | The second playable level of the second game (guess Answer with lives) | 13/11/15 |
| Level 3 of second game | Low | The third and final level of the second game. | 13/11/15 |
| Homepage displays top 5 scores for each game | Med | List of top 5 scores for each game | 4/9/15 |
| Homepage displays personal top scores | Med | List of your score + comparison between them | 4/9/15 |
| Modify Administrator/coordinator details | High | Webpage with settings about users and user groups | 4/9/15 |
| Modify subject/topic details | High | A text file can be uploaded with custom questions/answers | 4/10/15 |
| Ability to add/remove questions/answers to apps | High | A file, where adding data in a specific order will add it to possible questions | 4/10/15 |
| Consistency across website | Med | Similar colour scheme, good design practices, one CSS for all websites | 4/9/15 |
| User can setup an account, setup their icon, and save his scores to the database | High | Register page and ‘settings’ page, where the user can set his icon and settings | 4/9/15 |
| Graphic home page for each game | High | 3 graphical home pages | 16/10/15 |
| Help section | Low | Tutorial on how to play and use the apps | 13/11/15 |

# Other product requirements

* The applicationsmust be developed using **HTML 5** and **CSS3**
* **Usage of MySQL in INODB storage engine**Data must be stored in MySQL in the INODB storage engine with referential integrity
* **Database access via PHP**The website and apps must access the database using PHP.
* **Database must use a Data Access Layer**A data access layer will be used when accessing the database to separate to keep the business logic and data store separate.
* **Increasing levels of difficulty**  
  The apps difficulty must increase as the user plays the game
* **Phonegap based app**The app will be made in phonegap.

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| Requirement | Priority | Planned Release |
| Usage of MySQL in INODB storage engine | High | 13/11/15 |
| Database access via PHP | High | 13/11/15 |
| Database must use a Data Access Layer | High | 13/11/15 |
| Increasing levels of difficulty | High | 13/11/15 |
| Must be developed in HTML 5 and CSS3 | High | 13/11/15 |
| Phone gap based app | High | 13/11/15 |
| System finished by 13/11/2015 | High | 13/11/15 |