Software Requirements Specification

for

Pay and Park

# Introduction

The following document which provides the complete Software Requirements Specification (SRS) for “**Pay and Park**”. The purpose of this document is to present a detailed description of the Pay and Park. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli. This document is intended for both the stakeholders and the developers of the system.

## Purpose

Now a days in many public places such as malls, hospitals, offices, market areas there is a crucial problem of vehicle parking.

The main purpose of this project is to automate all possible functionalities of the parking management. The development of new system contains advanced features. It enables employees and administrators to log in to their account through online. Even the customer can view parking slots through online. In this system employees and administrators can view the details about parking records, branch records vehicle types etc.

## Intended Audience and Reading Suggestions

This document is for Administrator, Employees and Customers. The document aims at explaining in an easy manner, the basic idea behind Parking Management System. Document helps developers and clients easy to understand. Future development objectives are also discussed in this document.

## Project Scope and Product Features

The main scope of this project is:

* The system is convenient and flexible to be used. It saves their time, efforts, money and resources.
* The system generates a receipt after parking the vehicle.

## Definitions, acronyms, abbreviations:

* SRS – Software requirements specifications.
* PHP - A server side scripting language.
* MySQL - The database that will be used for this project.
* http – Hyper text transfer protocol
* www – World wide web

## References

* Software engineering by Pankaj Jalote
* www.w3schools.com
* [www.tutorialspoint.com](http://www.tutorialspoint.com)
* Learning PHP, MySQL, JavaScript and CSS: A Step-by-Step Guide to Creating Dynamic Websites by Robin Nixon.

## Overview:

The remainder of this document includes three chapters and appendixes. The second one provides an overview of the system functionality and system interaction with other systems. This chapter also explains the system constraints and assumptions about the product. The third chapter provides the requirements specification in detailed terms and a description of the different system interfaces. Different specification techniques are used in order to specify the requirements more precisely for different audiences.

# Overall Description

The following subsections provide complete overview of the SRS documentation for the product “Pay and Park”. For the rest of the document, we first define the overall product. Then, we give the external interface requirements, followed by a brief description of the product components and features. In the last section, we have provided the non-functional requirements of the product.

## Product Perspective

With the ever-increasing popularity and accessibility of the internet, it is only natural that the educational community should want to make use of this tremendous resource. The administrative user interface concentrates on the consistent information that is practically, part of the organizational activities and which needs proper authentication for the data collection. The Interface helps the administration with all the transactional states like data insertion, data deletion, and data updating along with executive data search capabilities.

The operational and generic user interface helps the users upon the system in transactions through the existing data and required services. The operational user interface also helps the ordinary users in managing their own information helps the ordinary users in managing their own information in a customized manner as per the assisted flexibilities.

## Product Functions

The product has following functions:

* The product works online with help of internet connection.
* The Email gateway integrated with this web application.
* This website is secured and each user needs to login the system to access account.

## User Classes and Characteristics

It is considered that the user do have the basic knowledge of operating the internet and to have access to it. The administrator is expected to be familiar with the interface of the tech support system.

## Operating Environment

These are the major components to run this software. The server needs following tools to run the website:

* Apache Server
* MySQL Server

## Design and Implementation Constraints

CO-1: The system’s design, code, and maintenance documentation shall conform to the Process Impact Intranet Development Standard, Version

CO-2: The system shall use the current corporate standard MySQL database engine.

CO-3: All HTML code shall conform to the HTML 4.0 standard.

CO-4: All scripts shall be written in PHP.

## User Documentation

UD-1: The system shall provide an online hierarchical and cross-linked help system in HTML that describes and illustrates all system functions.

UD-2: The online tutorial will be provided.

## Assumptions and Dependencies

* Internet connection required.
* 24X7 uptime server connection required.
* One assumption about the product is that it will always be used on mobile phones that have enough performance.
* The user should have basic computer knowledge. They should be trained to handle the features provided by the system.
* The browser version should be used which have html5 support

# Specific Requirements

This section contains all of the functional and quality requirements of the system. It gives a detailed description of the system and all its features.

## External Interface Requirements:

This section provides a detailed description of all inputs into and outputs from the system. It also gives a description of the hardware, software and communication interfaces and provides basic prototypes of the user interface.

### User interface:

The major user classes that are expected to use this product are as follows:

**Administrator**: Administrator is a super user treated as owner of this site. He can have all the privileges. Administrator can add the employees and other administrators he can add vehicle types branches and add parking records he can also delete the records.

**Employee:** who manages the parking system, he is supposed add parking records. He can also manage the other records like branch records and parking records.

**Customer**: this project gives less importance to the customers he can only view the map of the parking slots.

### Hardware Interface:

* **Operating system:** Windows XP / Windows 7
* **Hard disk:** 40 GB hard disk
* **RAM :** 1 GB RAM
* **Processor:** Intel Pentium or above

### Software interface:

* XAMPP 1.8.2
* Apache server
* PHP 5.4
* MYSQL server 5.5
* Adobe Dreamweaver CS 6.0

### Communication interface:

The project shall use the HTTP protocol for communication over the internet and for the intranet communication will be through TCP/IP protocol suite.

## Functional Requirements

The project has following modules:

* **Log in module.**

In this module, the Administrators and the employees can log in to their dashboards and manage their accounts.

* + Log in module.
* **Dashboards.**

In this module, the Administrators and Employees can manage their profiles change their passwords view the records.

* Dashboard
* Employee account
* Change password module
* Add admin
* Add branch
* Add employee
* Add parking cost
* Add parking locations
* Add parking slots
* Add vehicle types
* View admin
* View branch
* View employee
* View parking cost
* View parking locations
* View parking slots
* View vehicle types
* **Add parking records:**

In this module, the employees can add the parking records by selecting vehicle types after selecting vehicle types loading available parking slots then adding the in time of the vehicle and when the vehicle is exiting the are adding the out time

This generates a bill.

* Add parking records
* View parking records
* **Report module:**

This module, is for administrator where admin can view various kinds of report. Admin can view :

* Branch wise report
* Vehicle parking report
* Parking income report
* Employee wise report
* **Voucher Module**

This module, a special voucher is created for the customers to avail discounts for the frequently visited customers.

* + Add customer
  + View customer
  + Add voucher
  + View voucher
  + View voucher

# Other Nonfunctional Requirements

## Performance Requirements

This section lists the performance requirements expected from this Project:

* The users shall be able to add any records fewer than 5 seconds.
* The users shall be able to view any records fewer than 10 seconds. .
* The navigation between pages shall take fewer than 5 seconds.
* The application shall be able to do a validation check on the information provided in the user-authentication form and the place-order form to avoid false or incomplete information**.**

## Safety Requirements

No safety requirements have been identified.

## Security Requirements

* Users shall be required to log in to the System for all operations except viewing a items.
* The system shall permit only staff members who are on the list of authorized Menu Managers to create or edit items.

## Software Quality Attributes

If the connection between the user and the system is broken prior to an order being either confirmed or canceled, the System shall enable the user to recover an incomplete order.

* **RELIABILITY**

It is tested for all the constraints at development stage

* **AVAILABILITY**

This system will only available till the system on which it is installed is running.

* **SECURITY**

This system is provided with authentication without which no user can pass. So only the legitimate users are allowed to use the application. If the legitimate users share the authentication information then the system is open to outsiders.

* **MAINTAINABILITY**

There will be no maintenance required for the website. The database is provided by the end-user and therefore is maintained by this user.

* **PORTABILITY**

The system works anywhere with the internet connection.