Parking System Android Requirements Specification

Version 1.0

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# Executive Summary

## Project Overview

Parking System will provide a technique for those wishing to park at the university, an application to search the real-time availability of spaces from multiple locations.

## Purpose and Scope of this Specification

In this section, specification of the primary subsystems are provided in order to gain a better understanding of how each of the subsystems contributes to the overall functionality of the system. The Parking Space Monitoring System is responsible for the detection of all parking spaces at the campus and determining if they are occupied or empty

In scope

This document addresses requirements related to phase 2 of Parking System project :

* The User-Interface subsystem is the portion of the system where users interact with the system in order to view data contained by the system.
* The Parking system shall be capable of receiving data from the parking space monitoring subsystem at a constant rate.
* Time and rate of the parking slot available
* Type of parking for different users.

Out of Scope

The following items in phase 3 of Parking System project are out of scope:

* The use of Google maps in order to view the vacant slots is not considered.
* Notification of the availability of slots through mail or message.
* Automatic update of slots when the user leaves the occupied slot.

# Product/Service Description

The general factors that affect the product and its requirements are described. This section contain background information, the need for the application. Client mainly wished to reduce the number of tickets which are raised on day-to-day basis.

## User Characteristics

General customer profiles for each type of user who will be using the product is created. Profiles include:

* Student/faculty/staff/other
* experience
* technical expertise
* other general characteristics that may influence the product

## Assumptions

Assuming the user can be novice or an expert. If the user is not an Android user he/she need to use the application by switching from iOS to Android.

## Constraints

Parking System includes few constraints as stated below:

* User should download and register with the parking system application on their devices
* User may not know if the slot is available or vacant if he is not the app user
* Use of sensors
* Access, management and security
* Usage of application for the novice
* Space availability on the users device in order to download the application
* Usage of offline maps in Android application

# Requirements

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Requirement Number | Requirement | Comments | Priority | Date Reviewed | SME Reviewed /Approved |
| BR\_LR\_01 | The system should be able to register with the new user | Business Process = “recording the new user” | 3 | 10/06/16 | Katrina Burden |
| LR\_01 | The system should validate that the user is existing user or a new user  Deferred to Phase 2B: 3/29/2005 | Some users will be regular ones while some of them will be the naïve ones. It is the system that will be able to differentiate them as per BR\_LR\_01 | 4 | 10/06/16 | Katrina Burden |
| LR\_02 | The system should display the available parking slots under each category of the user | The users should be able to check their available slots as per the LR\_02. | 2 | 10/11/16 | Katrina Burden |
| LR\_03 | The system should be able to display the time available for parking | Dec 2016. New requirement to reduce the tickets as per the BR\_LR\_01. | 5 | 10/11/16 | Katrina Burden |
| BR\_LR\_02 | The system should be able to reduce the number of tickets | Business Process = “maintenance” The system should be able to reduce the number of tickets for wrong parking, long parking. | 1 | 10/11/16 | Katrina Burden |

# Deleted or Deferred Requirements

| Requirement Number | Requirement | Status | Comments | Priority | Date Reviewed | SME Reviewed / Approved |
| --- | --- | --- | --- | --- | --- | --- |
| BR\_LR\_03 | The system should use the online google maps. | October 2016. Deleted  The requirement has been replaced with BR\_LR\_01. | Business Process = “Maintenance” | 3 | 10/13/16 | Katrina Burden |
| BR\_LR\_04 | The system should be able to validate the parking slot by usage of the sensors | October 2016.  Deleted | Business Process = “Out of scope” | 2 | 10/13/16 | Katrina Burden |
| BR\_LR\_05 | The system should be able to capture the image of every car. | October 2016.  Deferred Phase. | Business Process = “Maintenance”  It is costlier as capturing the image of every car would be difficult. | 2 | 10/13/16 | Katrina Burden |

# Requirements Confirmation/Stakeholder sign-off

|  |  |  |
| --- | --- | --- |
| Meeting Date | Attendees (name and role) | Comments |
| 10/06/2016 | Katrina Burden, Client  Akshay Patil, Database Administrator  Ankitha Jain, Project Manager  Devyani Deshmukh, Technical Project Manager  Shubham Narang, Technical Analyst | Confirmed BR\_LR\_01, LR\_02, LR\_03, LR\_04, BR\_LR\_02 |
| 10/13/2016 | Katrina Burden, Client  Akshay Patil, Database Administrator  Ankitha Jain, Project Manager  Devyani Deshmukh, Technical Project Manager  Shubham Narang, Technical Analyst | Deferred / Deleted: BR\_LR\_03 , BR\_LR\_04 BR\_LR\_05 |