# Software Requirements Specification (SRS)

## 1. Introduction

Purpose: To digitalize the administration of car parking, replacing the current Excel sheet system with an automated, user-friendly digital solution.

Scope: The system will manage reservations for a three-floor car parking area, providing real-time status updates and reservation capabilities for employees.

## Definitions, Acronyms, and Abbreviations:

Admin: Administrator responsible for managing parking allocations.

2D Layout: A visual representation of the parking areas for the three floors.

Parking Status Colors:

Green: Parking is available.

Red: Parking is allocated.

Yellow: Parking is allocated temporarily.

Purple: Parking is designated for handicapped.

White: Special parking category.

CF 10 Staff Number: A unique identifier for employees.

References: None at this stage.

Overview: This document outlines the requirements for the car parking administration system, detailing functional, non-functional, system, and performance requirements.

## 2. Overall Description

Product Perspective: The system will replace the current manual Excel sheet method, providing a digital platform for parking management.

#### Product Functions:

Display real-time status of parking spots.

Allow admins to allocate and deallocate parking spots.

Provide color-coded status indicators.

Allow temporary and permanent parking reservations.

User Characteristics: Admins with basic computer skills responsible for managing parking allocations.

Assumptions and Dependencies: Assumes admins will have access to a computer and the necessary login credentials to use the system.

## 3. Specific Requirements

### Functional Requirements:

FR1: The system shall display a 2D layout of the three floors of parking.

FR2: The system shall use color codes to indicate the status of each parking spot (Green, Red, Yellow, Purple, White).

FR3: Admins shall be able to double-click on any parking spot to allocate it to an employee.

FR4: The system shall allow temporary reservations, indicating these with a Yellow color.

FR5: The system shall track and display which employee is allocated to which parking spot.

FR6: The system shall allow the allocation of parking spots to handicapped employees, indicating these with a Purple color.

FR7: The system shall store and manage parking reservations for different time periods (e.g., three months for temporary reservations).

FR8: Initially, the system shall connect to a CF 10 staff number for each employee.

### Non-Functional Requirements:

NFR1: The system shall be user-friendly and intuitive.

NFR2: The system shall provide real-time updates on parking status.

NFR3: The system shall be secure, ensuring only authorized admins can make changes.

### System Requirements:

SR1: The system shall be accessible via standard web browsers.

SR2: The system shall support integration with the organization’s employee database for CF 10 staff numbers.

## External Interface Requirements:

EIR1: The system shall interface with the employee database to fetch and validate CF 10 staff numbers.

## Performance Requirements:

PR1: The system shall update parking status within 5 seconds of an admin action.

PR2: The system shall handle simultaneous access by multiple admins without performance degradation.