Software Requirements Specification

1. Introduction

1.1. Objective

The objective of this software is to create a Room Booking Web Portal for The NorthCap University and integrating the same with automatic door lock system using RFID for unlocking the booked room at the allotted time.

1.2. Document Conventions

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Font – size for body:

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1.3. Intended Audience & Reading Suggestions

1.4. Product Scope

The goal of this project is to provide systematic room allotment to various societies of the The NorthCap University by Authorized students Society Heads, Faculties and Management/Administration staff. Also, the access to the room allotted will be secured with the help of Automatic Door Locks using RFID access given by RFID Cards.

1.5. References

2. Overall Description

**2.1. Product Perspective**

The software provides a web portal for booking a specific venue for all the societies of the college during university working hours. After the venue is allotted, the same will need to be accessed with the help of RFID card. The RFID of the card holder will be matched with the database and only on successful matching will the doors be unlocked.

2.2. Product Functions

2.3. User Classes & Characteristics

2.4. Operating Environment

Operating System: Platform Independent

Web Browser: Browser Independent

Internet Connectivity: Required

2.5. Design and Implementation Constraints

2.5.1. Interfaces to other Devices

2.5.2. Database Size Limitation incase of Mongo DB

2.6. Assumptions and Dependencies

2.6.1. Node Hosting

2.6.2.

3. External Interface Requirements

3.1. User Interfaces

The user interfaces include:

* Web Browser – Browser Independent
* Graphical User Interfaces – Platform Independent (Mac OS, Windows, Linux & Linux Based Systems)

3.2. Hardware Interfaces

The Hardware Interfaces include:

* Inputs from keyboard and touch screen
* Monitor
* CPU
* Mouse
* RFID Card Reader and Sensor
* LED

3.3. Software Interfaces

The software interfaces include:

* Visual Studio Code
* Mongo DB
* ExpressJs
* AngularJs
* NodeJs
* HTML
* CSS
* Bootstrap

3.4. Communication Interfaces

The web portal will be hosted on the university server and can be accessed by connecting the device to the server or using an existing system.

The RFID Card Reader will read the RFID Card and check the input with the database online. After verification of the RFID existing in the database, the door of the room booked through the portal is unlocked.

4. System Features

4.1. System Feature 1

Name: User Login

Description:

It is used for authentication of authority holders.

4.2. System Feature 2

Name: Slot Selection

Description:

It is used for selecting available time slot for particular venue.