Chapter 2

REQUIREMENT SPECIFICATION

A Requirement Specification of a system includes Software Requirements Specification (SRS) and Hardware Requirements Specification. It lays out functional and non-functional requirements and may include a set of use cases that describe user interactions that the software must provide. Laying out software and hardware requirements are essential for the users to understand the prerequisites of the project and to check if the required specifications are compatible with the available specifications.

2.1 Hardware Requirements

- 64-bit CPU
- 4-8 GB Memory
- Processor: Intel i3 or Later, 1.8GHz

2.2 Software Requirements

- OS (e.g. Windows 10)
- ReactJS
- CSS3
- HTML5
- JavaScript
- FireBase
- Stripe

2.3 Functional and Non-Functional Requirements

A Functional Requirement defines a function of a system or its component, where a function is described as a specification of behavior between outputs and inputs. Functional requirements are supported by non-functional requirements.

A Non-Functional Requirement is a requirement that specifies criteria that can be used to judge the operation of a system, rather than specific behaviors. The plan for

implementing non- functional requirements is detailed in the system architecture, because they are usually architecturally significant requirements.

2.3.1 Functional Requirements -User

Users accessing the portal and entering information should be appropriate. The authentication part of the site is handled by firebase and all the exceptions are handled by FireBase as well. The responsibilities of the user include buying items and paying for it.

2.3.2 Security Requirements

It is of utmost importance to ensure that there is protection against unauthorized access to the site. We also make use of FireBase as a tool for authentication while logging in and all the details such as 'Valid email', 'User does not exist' are handled by Firebase. The transactions required for payment are handled by Stripe and is secure. This allows us to focus on the functionalities rather than the non-functional requirements.

2.3.3 Performance Requirements

The PCs used must be at least be INTEL CORE i3 machines so that they can give optimum performance of the product. In addition to these requirements, the system should also embrace the following requirements:

- Reliability**:** The system should have little or no downtime.
- Ease of Use: The general and administrative views should be easy to use and intuitive.

2.3.4 Design and Interface Requirements

The designers must design the site in such a way that any change in the information of users should be updated and saved effectively in state. The cart has to be updated dynamically based on the user's need in order to avoid discrepancies. The interface designed should be very easy to use and user friendly. ReactJS is an intuitive framework in which the page need not be reloaded frequently and the data is rather displayed dynamically.

User's activity like adding to cart is tracked and saved properly without any mistake which helps to main the integrity of the data.