**CHAPTER – 4**

  A software requirements specification (SRS) is a description of a software system to be developed. 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.

Software requirements specification establishes the basis for an agreement between customers and contractors or suppliers (in market-driven projects, these roles may be played by the marketing and development divisions) on what the software product is to do as well as what it is not expected to do.

Software requirements specification gives us idea of requirements before design can begin and reduces later redesign.

It should also provide a realistic basis for estimating product costs, risks, and schedules.

The Software Requirements Specification (SRS) is a communication tool between stakeholders and software designers.

**4.1 Functional requirements**

Functional requirements specify the key functions to be performed by the proposed system. These describe functionalities or service the system is expected to provide. It depends on the type of software that is being developed and also expected users of the system.

* Nagios : It is open source monitoring tool which monitors sites.
* Git : It is open source version control system
* Github : Public open source Repository which is used store codes
* Maven : It is building tool which build the codes into binary files or packages
* Firewall : used to implement persistent network traffic rules.
* DNS : provides visitors access to websites using domain names rather than IP addresses.
* Jenkins : Continuous Integration tool which is used to integrate the all other tools.
* Jfrog : It's a single gateway through which you access external artifacts, and store your own build artifacts.
* Corbertura : is a free Java tool that calculates the percentage of code accessed by tests. It can be used to identify which parts of your Java program are lacking test coverage.
* Puppet : is an open-source software configuration management tool. It runs on many Unix-like systems as well as on Microsoft Windows, and includes its own declarative language to describe system configuration.

**4.2 Hardware Requirements**

RAM 8GB

Hard disk 30GB

Operating System Linux