# Chapter 2

# SOFTWARE REQUIREMENT SPECIFICATIONS

**2.1 Overall Description**

The proposed system has been designed to support the day to day working of the admission personnel. It allows them act as the administrator of their own account which implies that the data of the user is secured at every instance of time despite the fact that it a multi-user software. It allows the clients to create, delete and update their information viewed by a user searching on the software. There by the user can do these things by him and at his ease and thus providing the user flexibility with time.

**2.2 Specific Requirements**

The requirements of the Web-based applicant registration are to develop:

* A web based front end for entering the details of the faculties in R V College of Engineering.
* A web based front end for searching the information relating to a given faculty on the required keywords given.
* A pdf report to be generated of the information asked by the user.

**2.2.1 Functionality**

The two main user groups and access levels are:

* The faculty (normal access level)
* The Admin (privileged access level)

Therefore, the requirements could be efficiently analyzed depending on the user group and the functionalities they should be allowed to perform.

# 2.2.1.1 Functional Requirement –Faculty

**Teachers:-**

* They are required to sign up with their information.
* They need to timely update their information and then to upload the papers and the journals that they have written and created.
* They can also generate reports regarding their information in the account.

**Admin:-**

* Generate reports regarding particular teachers.
* Generate consolidated reports about a particular field of all or a set of teachers under them.
* Manage the information given by the teachers.

## 2.2.1.2 Security Requirements

It is of utmost importance to ensure that there is restriction on who can access the database. Users must be provided a unique Registration ID, username and his password those users can access their system. Similarly, only by having a faculty\_id the admin can oversee the various data which has been create by all the faculties. Each Client has its password with which he can edit or delete his account. Password recovery is also provided which is sent to the user’s email id

**2.2.2 Performance Requirement**

The PCs used must be at least Pentium 4 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 and be able to handle multiple concurrent users.

**Ease of Use:** The general and administrative views should be easy to use and intuitive. Online help and documentation should be provided.

**System and Browser compatibility Testing:** The system should be accessible on the following browsers - Microsoft Internet Explorer 7.0+, Netscape Navigator 6.0+ and Mozilla 1. 3+, Google Chrome.

**2.2.3 Design Constraints**

The designers must design the database is such a way that any change in the information of a client should be updated and saved effectively in the database despite the fact that multiple clients access the database.

**2.2.4 Hardware Requirement**

**Users Side:**

* Operating System: Windows xp  ,Windows Vista, Windows 7, Windows 8
* Processor: Pentium  3.0 or higher
* RAM: 256 Mb or more
* Hard Drive: 10 GB or more

**2.2.5 Software Requirement**

* Front End: HTML, CSS, JavaScript
* Backend: PHP, Mysql
* Browser (Supports AJAX)
* OS - Linux

**2.2.6 Interfaces**

Two Types of interfaces are generally provided in this software except the developer’s interface which are the admin entering the student details and the students searching for their details.

All students who are admitted to the college can search by his/her requirement.

**2.2.6.1 User Interfaces**

The database designed should be very easy to use and user friendly.

* Admin can see and modify the details of the faculties.
* One user can not edit the information of another user.
* A user can retrieve information of oneself.
* Admin can retrieve information of all the users.

**2.2.6.2 Communication Interfaces**

Communication between database and front end pages is through PHP, which is auto configured application for virtual server in a computer which is automatically configured. LampServer is a Linux web development environment which allows the user to create web applications with Apache2, PHP and a MySQL database. Alongside, PhpMyAdmin also allows managing databases easily. It is connected with frontend with a connection string used is HTML pages. We can have two types of authentication that are administrator and SQL server. It has inbuilt API for connectivity.