Chapter 3: Software Requirement & Specification

**3.1 Introduction:**

Software requirement and specification defines what the system what the software can do and how it expected to perform. The software requirement and specificity defines the functionality of the project. Many students make mistake in their preference list of colleges because of inaccurate analysis of colleges, lack of knowledge and later they end up regretting after getting admission. The project addresses this issue. An Automated Prediction Model For college Admission system is a website system. The student enters their marks in the search. The system helps to predict the college name list according to student selected field and gender and category in which student can get admission. Administrator handles all the college details in the website. Administrator adds the college details like name, principal name, seats and merit list of each field and picture etc. in the website. The administrator can edit or delete the college if we wanted to.

The student can view the male and female collages of Peshawar with their detail. The student can search the predication list of college by different options like by district-local, jurisdiction, employee quota, and HAFIZ-E-QURAN. The system predicts the college name list in which student can get admission according to selected search option. In jurisdiction the system predict the college list according to jurisdiction of the colleges, in local it shows all the colleges of Peshawar, in employee quota it shows the predication list of colleges by employment quota detail and in HAFIZ-E-QURAN the system will add 20 more marks in the student marks and then shows the predication college names by that marks. The system shows the best predication college list according to student selected option.

**3.2 Project Purpose:**

The main purpose of the system is to provide the online platform to the student in which student can search the colleges list in which we can get admission after competition of matric. As student are not very well aware of all the colleges and colleges’ admission merit list. The system provide the online website in which student can get all the information of the colleges and can search the predication list of college according to his marks and field and category by just selecting few options in the website. The system uses the predication algorithm to show the best precipitation list to the student.it helps the student to make right decision for choosing his college.

**3.3 Project Scope:**

The project has a scope because it is used for education industry. It provides the online and easy and efficient way for getting the college list name in which he can get admission according to his interested field. It saves time and effort as compare to manual work like visiting every college for getting information. It provides college information’s online and this project also increase the aware of each college among students. This project also increases the popularity of college which will be good for college and for college admissions.

**3.4 Overall Description:**

**3.4.1 Project Perspective:**

The main perspective goal of An Automated Prediction Model For college Admission system is to design a user-friendly and time saving, and online college predictor website. The website uses the linear algorithm to predictor the colleges list with accurate result. The predictor list generated in no time and the project develop in provided time.

**3.4.2 Project Features:**

* Admin can add college.
* Admin can view college.
* Admin can edit college.
* Admin can delete college.
* Student can view male colleges.
* Student can view female colleges.
* Student can generate predication list of college.
* Student can search colleges.

**3.5 Functional Requirements:**

The functional Requirements of the project are:

**Admin:**

1. **Admin Login:**

Admin can login into his registered account

1. **Add College:**

Admin can add new college detail in the website.

1. **View colleges:**

Admin can view the details of the added college in the website.

1. **Delete College:**

Admin can delete any added college from the website.

1. **Edit College:**

Admin can edit any added college information from the website and save the new information in the website.

**Student:**

1. **View colleges:**

Student can view the details of the added college in the website. Student can view the male or female colleges. Student can even view the complete detail of single college like seats, objective, principal name of the college etc.

1. **Search colleges:**

Student can search the male or female college by its name.

3. **Generate and View Predicted colleges:**

Student can generate the list of predicted college by entering his gender, field category and marks. The system will show the list of colleges in which the student can get the admission. Student can even view the detail of the predicated college. The student can even generate the list by different category like district-local, jurisdiction, employee quota, and HAFIZ-E-QURAN.

**3.5.1 Inputs and Outputs format**

**College Details:**

The college details is the input of the website it consists the input format of image, text and number format.

**Predication College List Details:**

The predication college list details is the output of the website it consists the output format of image, text and number format.

**3.6 Non-functional Requirements:**

* **Security:** website is secure. No one can use this website without a registered email and password of admin.
* **Reliability:** The website is available twenty four seven. The student can use it anytime.
* **Performance:** website designed and developed in such a way that it should not utilize too many resources. It performs the given task in minimum time possible and it also search the result in minimum time.
* **Usability:** Usability of website is easy so that e-learner can use it without any difficulty.
* **Maintainability:** website builds up in such a way that classifications of errors and maintenance become easy.
* **Flexibility:** website is flexible so that it can easily accept all changes at low cost, time and experience.