3.2 Functional Requirements

Functional requirements describe how a product must behave, what its features and functions.

This software package is expected to offer the following services:

3.2.1 For System:

3.2.2 For Administrators:

a) To facilitate the maintenance of important records of learners currently studying in your institute.

b) To maintain grade reports of any student and courses offered in any semester online.

c) To keep track on educator performance on basic of feedback provided by students.

3.2.3 For Educators:

a) To keep track of improvement/decline in the performance of any learner in the exam/test.

b) To provide there contact details to learners and acquired learners contact detail when needed.

c) To keep track on learner who has some weakness on particular topic in any subject.

d) To provide marks of learners in every subject test/exam online.

3.2.4 For Students:

a) Facility to go through their progress and the grades and marks of various test/exam in the particular standard.

b) Facility to view their personal details and view some of them.

c) Facility to view there grades and marks in a graphical format and can see the maximum marks in there class in that particular test/exam.

d) Facility to know how much marks he/she may acquired in next test/exam on basic of there past performance in test/exam.

f) Facility to give feedback to educator on basis of there teaching.

3.3 Non-Functional Requirements

Nonfunctional requirements describe how a system must behave and establish constraints of its functionality. Nonfunctional requirements describe the general characteristics of a system. This type of requirements is also known as the system's quality attributes.

3.3.1 Usability:

This section includes all of those requirements that effect usability.

a) We got the response within second.
b) The software must have a simple, user friendly interface so customers can save time and confusion.

3.3.2 Reliability:

The software will not be able to connect to the centralized database in the event that the school LAN fails or in the events of the server being down due to a hardware or software failure. The system is more reliable because of the qualities that are inherited from the chosen platform python. The code built by using python is more reliable.

3.3.3 Supportability:

The system is designed to be the cross platform supportable. The software is a window based application and is built in Python, Django and MYSQL. So, it is platform independent and is independent of operating system.

3.3.4 Performance:

This software should be able to handle the following tasks,

a) The system need to be reliable.
b) If unable to process the request then appropriate error message will shown.
c) The web pages are loaded within few seconds.

b) At least 60 educators/staff can log in on an average of four hours a day for five days a week.

c) At least 1000 learners can login into their accounts for 3 hours for 5 days of a week.

d) It should be able to handle the MYSQL database of 100 educators and 5000 learners.

3.3.5 Security:

This software will,

a) Authenticate each user, who logs in.
b) When the user performs any action, authorize him/her to perform the actions allowed for the user and displays an error message if found to be unauthorized.
c) The system should only allow student to change their own information and not others.
d) The system shall prevent students from viewing other student information.
e) The system should protect user's privacy.

3.3.6 Safety:

This software will ease the process of learners grading. At the end of every semester each learner will received a grade sheet generated by the administration using the data uploaded by the subject educator on this software. The details need to be maintained properly. The database must be kept backed up. All important details should be maintained in hard copy as well by institute.

3.3.7 User Friendliness:

a) The system user interface (UI) should be easy to understand.

b) The system UI should be easy to use (not overly complex design).

c) The system should have a single login to access all functions.

d) The system should have a consistent UI (design and layout of buttons should be same).

e) The system should have maximum of 3 clicks to reach any content.
f) The system should have a descriptive UI (buttons and functions should have a descriptive text).
g) The system will be user friendly.
h) The system will be very interactive.

3.3.9 Implementation:

The system is implemented in web environment. The apache tomcat is used as the web server and windows 10 professional is used as the platform.

3.3.10 Interface:

a) The user interface is based on the web browser. The application is developed using HTML, Python and MYSQL.
b) The interface design is aimed at a flexible front-end communication to provide the user with clear information in navigating a user-friendly interface is planned.

3.3.11 Availability:

a) The system will be available to only authorized users of the school like teachers, students and administrator.
b) The system should be accessible all the regardless of time.
c) The system should not have un expected downtime.
d) The system should only have maintenance during low-intensity hours.
e) The system should announce maintenance duration at least 48 hours in advance.