2.2.2 Functional Requirements

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2.2.3 Performance Requirements

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2.2.3.2 Student Records/Information Portal

2.2.3.2.1 Speed

2.2.3.2.2 Capacity

2.2.3.2.3 Reliability

2.2.3.2.4 Usability

2.2.3.2.5 Accessibility

2.2.3.3 Woodlands University College Corporate Website

2.2.3.3.1 Speed

2.2.3.3.2 Capacity

2.2.3.3.3 Reliability

2.2.3.3.4 Usability

2.2.3.3.5 Accessibility

Functional requirements

* Functional requirement specifies and indicates the features a software system must have in order to accomplish tasks. It defines the software features that focus on user needs.

Record management system

- Record management system is an integral part of a software system that is eligible to organize the records and data of any business. It keeps data secure and ensures privacy whilst being accessible to authorized users. It is the management of a company’s data throughout its lifecycle.

The record management system that will be implemented in our record management system is

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2.2.2.1.1 Records Management Systems

2.1.3.1.2 Student Records/Information Portal

The student portal is an application/ website that holds student records and displays relevant to students such as grades, assignments, course updates and events. The student portal will have the following features: -

LOGIN PAGE

As soon as the user loads the student portal, the login page will appear where the user has to enter his/her username and password to access to the portal.

WELCOME PAGE

This page highlights the contents of the student portal. This page includes a left sidebar that displays contents the students require in a menu like manner. The main page has study sources, support links, faq.

STUDENT PROFILE

Each student has their own profile on the student portal. This particular page includes all the data of the students required by the university.

COURSE PAGE

This page contains all the data related to the course. Information such as courses required, upcoming courses, information on the courses, assignments, assignment submit portals and reading resources will be displayed on the page.

INFORMATION/EVENT PAGE

This page contains a list of new information, upcoming events, exam schedule, holidays, submission deadlines of the assignments and the university.

GRADES

This page contains the grades of the students. The grades are displayed accordingly based on the courses taken.

The student portal is going to be easy and accessible to use. The site navigation should be fast and effective of higher user experience quality. It should be responsive to desktop devices and mobile phones. The portal will be updated accordingly to the administrations need. The students/ staff will have easier access to assignments, grades, news, events which works as an attainable as well as a great source for the university to connect to the student and staffs.

2.1.3.1.3 Woodlands University College Corporate Website

-A website is a vital necessity for any type of company in the present world. A website for Woodland University will increase the university’s digital presence making its information and events more accessible to the users.

The website will have the following features: -

Woodland presentation

This displays the information that highlights the university’s speciality to the users. It contains images related to university life, university’s logo, information on its history, programs it offers, it’s alumni, link to the university tour video and events happening at the university. This helps the users learn more about what the university has to offer.

Program and Majors available

The most likely reason a user visits the university website is to learn about the programs and majors it offers. This information should be made easily accessible with detailed information and should be listed systematically which helps guarantee higher user experience.

Admission requirements

Requirements on college and admission can be overwhelming. So, providing proper information on admission requirements is a very important feature to include. Listing out a checklist of requirements such as grades, fee structure, scholarships or financial assistance, standardized tests help users understand the application process better which is important for a university website to include.

Search Box

A university website contains a large number of data and resources. Finding all information at a glance is almost impossible. A properly located search engine makes it easier to find information that is not readily available at the website.

FAQ (Frequently asked questions) / Ask a student section

A faq section should be included on the website. It should include commonly asked questions most students and parents ask and are curious about. This saves time of the both the user as well as the student/parents rather than asking it by email or call. It improves site navigation and helps highlight key information about the university. Ask a student section allows users to directly ask questions that are not on the frequently asked question section to students that have knowledge on relevant topics. It improves site navigation and helps highlight key information about the university.

Location and Contacts

Some students might want to visit the university before taking decisions to study there or some students might want to contact the university on certain information, they are curious about. To make this process easier the contact information as well as the location should be displayed accurately.

Easy and accessible website navigation is highly important for proper user experience. Going from one page to another should not take a long time. The website should also be responsive to any type of devices like laptop, tablets and mobile phones. Doing so, users can easily attain to the website. The website needs to be updated monthly. As per the university’s administration requirements, new features will also be updated whenever required. The outlook of the website should be simple yet attractive. A university website makes the university attainable all around the world. This also helps international students. A proper website leads to increase in higher enrolment rates, a digital presence promoting the website and student satisfaction.

Performance requirements

Record management system

Speed

* User login should take less than 3 seconds
* The CPU usage should be less than 30% whereas the 70% should be used for background tasks in standard workload
* Data input should take less than 1 second
* Any type of changes made to the records should be saved in less than 1 second
* Search engine should load in less than 2 seconds
* Complicated search queries should load in less than 4 seconds
* The system will be able to handle peak utilization without system lag

Capacity

* The system should be able to input 200 data entries per second including higher system usage
* The system should be able to handle 100 users simultaneously
* The system should be able to store approximately 50,000 student records
* The system should be able to store approximately 20,000 staff records
* The system should be able to store approximately 50,00 student records

Reliability

- The system should have 90% of reliability

- The system should be operated and available all around the year

- During system crash, the system should recover in less than an hour

Usability

* The system should be simple and easy to learn for users.
* A beginner should be able to learn the way around the system within three hours of training
* The system should have an uncomplicated UI and easily accessible for all users
* 90% of the users should be able to input data the first time without assistance

STUDENT PORTAL

Speed

* The website pages should load in less than 2 seconds on both smart phones or desktop devices
* The First Contentful Paint should be displayed in less than 1 second.
* Students/Staff should be logged into the page in less than 3 seconds.
* Information should be updated in the page in less than 10 seconds
* The latency of the website should be updated in the page in less than 10 seconds
* The search engine should load results in less than 2 seconds.

Capacity

* The website should be able to handle 100 student uploads per second
* The website should be able to support 100 simultaneous users
* During peak load, the system should be stable and able to handle 100 user logins
* The website should have a bandwidth of 100 GB.

Reliability

- The system should have 90% of reliability

- The system should be operated and available all around the year

- During system crash, the system should recover in less than an hour

Usability

* 90% of the students shall be able to use the website in the first attempt without assistance
* The website portal shall have a simple UI and be made accessible for users
* The website should be responsive in both desktop and mobile devices
* The website navigation should be made simple and straight forward to follow

WEBSITE

Speed

* The First Contentful Paint should be displayed in less than 1 second
* The pages on the website should take less than 2 seconds to load on desktop and mobile devices
* The website latency should be less than 100 m/s
* Application process should take less than 10 seconds to upload
* All website information should load in less than 2 seconds
* New information update should be completed in less than 5 seconds

Capacity

* In peak load, website shall be able to handle 100 users per second
* The website should be able to handle 30 admins at a time
* The website should be able to process 50 admission uploads per second
* The website should have a bandwidth of 50 GB.

Reliability

- The system should have 90% of reliability

- The system should be operated and available all around the year

- During system crash, the system should recover in less than an hour

Usability

* 90% of the students shall be able to use the website in the first attempt without assistance
* The website portal shall have a simple UI and be made accessible for users
* The website should be responsive in both desktop and mobile devices
* The website navigation should be made simple and straight forward to follow