**Software Requirements**

**Specification**

**for**

**<University System>**

**Prepared by <**

**Mostafa Hamza Hassan 42010521**

**Abdelrahman Ahmed 42010611**

**Abanoub Ragheb Younan 42010601**

**>**

**< Ahram Canadian university>**

**<19 \ 3 \ 2022 >**

***Copyright © 1999 by Karl E. Wiegers. Permission is granted to use, modify, and distribute this document.***

***Software Requirements Specification for <Project> Page ii***

* **Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
| University system | 19\3\2022 | Registration problems for students | 1.00 |
| University system | 22\3\2022 | Introducing a new function | 1.01 |
| University system | 23\3\2022 | Edit purpose  Edit Reference | 1.02 |
| University system | 24\3\2022 | Edit FR | 1.03 |

* **Introduction:**
* Purpose

<The software overall will help in increase the speed of registration process and will be easier for the user to handle the registration and provide to him with all his needs*.*>

* Product Scope

< system will provide to the user:

. Saving student data to be easier for the system user to access student data at any time.

. choosing courses which be available to him.

. Accepting or rejecting student's choices according to his academic status.

. system user can contact with the student and try to choose the best plan which suits academic status. >

* References

*<* We did an interview with the teacher assistant and asked her all the question that helped us in our project.*>*

* **Overall Description**
* ProductFunctions

*<* our project performs five main functions**:**

Registration: the student can registration term course.

Dropping: the student can drop any course before.

Graduation Exceptions: Four-year student can take course self-study or overload.

Regulations:

* Bank: the university receives list of student names who paid to the bank.>
* User Classes and Characteristics
* *<* 1-system user can add, edit and access student data, can contact student.
* 2-system admin He is responsible for maintaining, updating, and checking for errors in the program .
* 3-Student can choose his courses and contact with system user **(TA)*.>***
* Operating Environment

*<* The system is going to be a multi-platform software that is available on windows and macs, Also, the system can be accessed from any device in any place to make it easier to the user, but you cannot access it unless you have the user's password so that not anyone can access it*.>*

* Assumptions and Dependencies

*<* one assumption about the software is that it will always be used on desktop computers and laptops so all the system users should be aware of computers and the English language.*>*

* **System Functions**
* Courses Enrollment:

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Requirements statement | Must/should | Comments |
| FR1 | The website shall have a log in page to enter his/her username and password to know if it is (student/Registrar) | Must |  |
| FR2 | If it was a student the website shall ask him for his/her id |  |  |
| FR3 | The courses are registered to them by the Registrar using their regulations. | Must |  |
| FR4 | The student chooses the schedule that suits him by choosing (schedule)feature | Must |  |
| FR5 | By choosing (courses)feature he will be able to choose his courses. | Must |  |
| FR6 | The GPA of the student must be higher than 2 to register 18 hours as a Regular student | Must |  |
| FR7 | If the GPA is less than 2, the student will register in only 12 hours | Must |  |
| FR8 | The student must study a certain number of hours so that he can choose the department by choosing(department)feature | Must |  |
| FR9 | The student must study 93 hours in order to be able to register the graduation project | Must |  |
| FR10 | If the student GPA is more than 3  The student can register overloading courses by choosing (overload)feature. | Should |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| * Dropping:  |  |  |  |  | | --- | --- | --- | --- | | Code | Requirements statement | Must/should | Comments | | FR11 | The student applies to reduce the subjects in the classroom, whether subject or more within a specified period of the beginning of the semester by choosing(drop)feature that is connected to the (Registration Comity) to give his confirmation /rejection. | Should | In this case it does not affect GPA but you cannot open the related materials to pass this material. | | FR12 | The same page shall have a feature called(confirm)to know the result of the drop. | Should | In this case, the registrar must develop a good plan for the student. | | |  |  |
|  |  | | | |  |  |  |

* Graduation Exception:

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Requirements statement | Must/should | Comments |
| FR13 | If the student does not complete the number of credit hours in the fourth year that he needs to graduate, he can take overload courses. | * **Should** |  |
| FR14 | If the course is closed, it can be taken as self-study | **Should** |  |

* Regulations:

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Requirements statement | Must/should | Comments |
| FR15 | TheRegulations **that show to the Registrar** changes every 7 years. | * **should** | * **From 2011 to 2018 the same Regulations and**   **From 2018 up tell now the same Regulations** |

* Check student payment:

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Requirements statement | Must/should | Comments |
| FR16 | Confirm the names of the students who paid the fees by showing them to the Registrar when the Registrar chooses a feature called(payment) | * **must** |  |

3.6 Exam Excuses :

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Requirements statement | Must/should | Comments |
| FR17 | In this case, the student will apply for management so that another exam date will be set after paying the fees related to it. | Must | Accept this situation if the student is subjected to an extraterritorial circumstance. |

* **Nonfunctional Requirements**
* Performance:

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Requirements statement | Must/should | Comments |
| NF01 | 1. The system must respond to the system operation in less than 3 seconds for the user. | Must |  |
| NF02 | 1. The system should be Compatible with all modern browsers to be easier for users. | Should |  |
| NF03 | 1. The system should respond to the process messages to the users in 2 seconds, not more than this. | Should |  |

* Safety and Security:

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Requirements statement | Must/should | Comments |
| NF04 | 1. Hashing Passwords should be used to handle secure login for users. | Must |  |
| NF05 | 1. The database should be secured from SQL injection to prevent leak or loss of valuable information about the system so we must protect it. | Must |  |

* Reliability:

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Requirements statement | Must/should | Comments |
| NF06 | 1. This system must be reliable and provide catching things so that there are no uncalculated results in the system such as system crashes or data failure. | Must |  |

* Usability:

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Requirements statement | Must/should | Comments |
| NF07 | 1. The system must have a great user interface to make it easier for the user to deal with the system. | Must |  |

* Availability:

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Requirements statement | Must/should | Comments |
| NF08 | The system must be available 24 hours per day but if we have any problem or anything unusual or bug, we will have no more than 20 minutes downtime per day. | Must |  |