KFUPM Registrar System
SRS Document

Version 1.0

Doctor:

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Team 3

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Document component	Weight	Grade
Organization	5%	
Introduction	10%	
Process Model	10%	
User Functional Requirement	20%	
Use Case diagram	40%	
Non-Functional Requirements	15%	
	Total	

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1. Introduction:

KFUPM is one of the greatest universities among Arab universities. Maintaining the systems there is done regularly. However, the registration system is quite old and it's better to be replaced with a new one. This project aims to produce a state of art registrar system to be used by KFUPM only. It's an online system that manages the students' registration, schedule, and grades. It's used as well by faculty members through which they can grade their students, take attendance, etc.....

This section gives a scope description and overview of everything included in this SRS document. Also, the purpose for this document is described.

1.1. Purpose:

The purpose of this document is to give a detailed description of the requirements for the "KFUPM registrar system" software. It will illustrate the purpose and complete declaration for the development of system. It will also explain system constraints. This document is primarily intended to be proposed to KFUPM for their approval and a reference for developing the first version of the system for the development stage.

1.2. Scope:

This document focuses only the requirements of the "KFUPM registrar system". This includes features, specific requirements, and use case specification mainly of the four subsystems: Students system, Faculty members system, Chairmen/Deans system and Course management system.

1.3. Overview:

This document will discuss the "KFUPM registrar system" overall description and specific requirements. Supporting information is then given; these include diagrams describing the system.

2. Process Model:

2.1. Waterfall model (chosen)

 The system has stable requirement because of the existing systems and waterfall model can used to develop it.

2.2. Incremental development

Nevertheless, we should not use the incremental development because the Managers need regular deliverables to measure progress and the incremental is not visible.

2.3. Based component development

In parallel, the based component it may not meet the system requirement and the component may not be financially effective.

3. User Requirements:

3.1. Functional Requirement

The registrar system features were specified in the vision document in order to provide high level of understanding; use cases with their description. However, the detailed functionality of the system can be represented sufficiently by the documented use cases, but we rather present this part using language-style, since some of those use cases can be integrated in well-defined language.

3.1.1. View sections

The user can get the list of sections available for each semester. The user can filter the sections based on:

3.1.1.1. Department

The system should show the sections of all courses in the department that the user wants.

3.1.1.2. Course

The system should show the sections of the course that the user wants.

3.1.2. Add a course.

The system shall allow the student to add a course(s).

3.1.3. Drop a course.

The system shall allow the student to drop a course(s).

3.1.4. Show curriculum.

The system should show the student's curriculum based on his major and will specify which of them is done.

3.1.5. Show registration timings.

The system should show the registration timings for all users.

3.1.6. Show the transcript.

The system should show the transcript for the student.

3.1.7. Show the courses information.

The system shall show the information of the course that student wants.

3.1.8. Show the weekly schedule.
The system shall allow the user to view his weekly schedule with building-room number.

3.1.9. Show information of academic advisor.
The system shall show the information of the academic advisor for the student.

3.1.10. Show information of sections.
The system should show information of the sections and enrolled students for each faculty member.

3.1.11. Assign the letter grade for each student in his sections.
The system shall allow faculty member to assign grade letter for students in his sections.

3.1.12. Enter the attendance of his sections.
The system should give the faculty member the ability to enter the student attendance in his section.

3.1.13. Show advising information for faculty member.
The system shall display the information of students that the faculty member is advising.

3.1.14. Show info of the faculty members, students and sections in his department.
The system should allow the chairman/dean to view the faculty members and students that he is responsible of.

3.1.15. Assign instructor, building-room number for a section.
The system shall allow the chairman/dean to assign and change the instructor, building-room number for the sections in his department/college.

3.1.16. Add student to a section.
The system shall allow the chairman/dean/management to add student(s) to a section.

3.1.17. Remove student from a section.
The system shall allow chairman/dean/management to remove student(s) from a section.

3.1.18. Assign the academic advisor for each student in his department.
The system should give the chairman/dean the ability to assign the academic advisor for students.

3.1.19. Add a new section.
The system shall allow the management to add new sections for any course.

3.1.20. Show information of all faculty members, students and sections.
The system shall allow the management to view information about all faculty members, students and section in the university.

3.1.21. Assign registration timings:
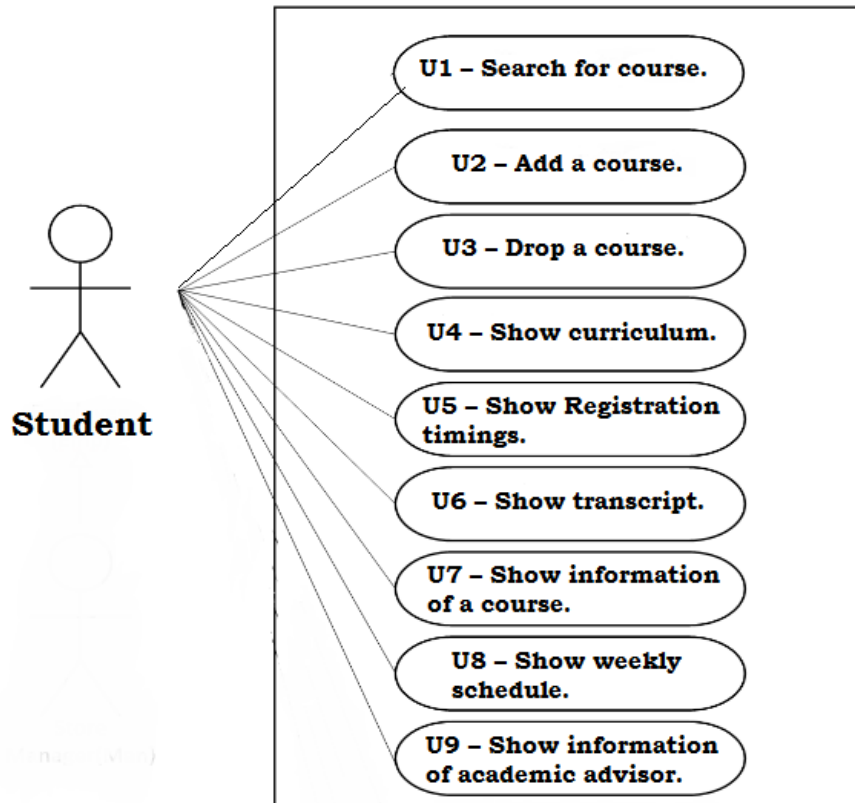The system shall allow management to specify when is the time for students to register courses.

3.1.22. Assign the information of the final exam for each course.
The system shall give the management the ability to assign the final exam date, time and building-room number for each course.
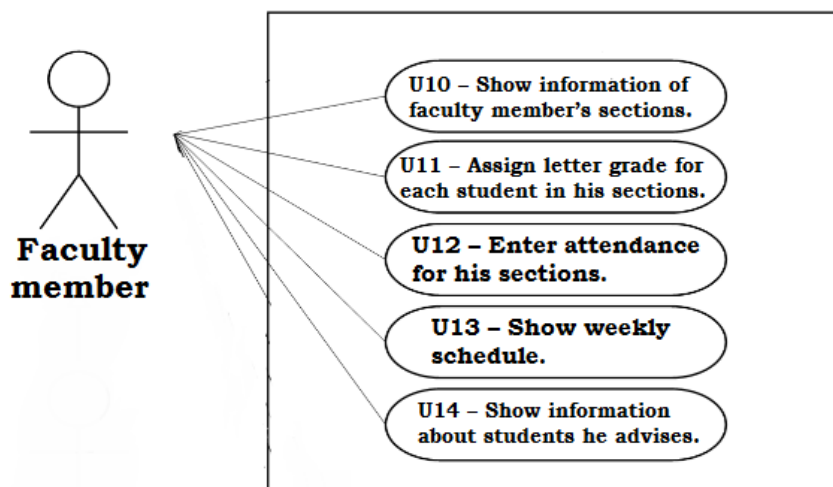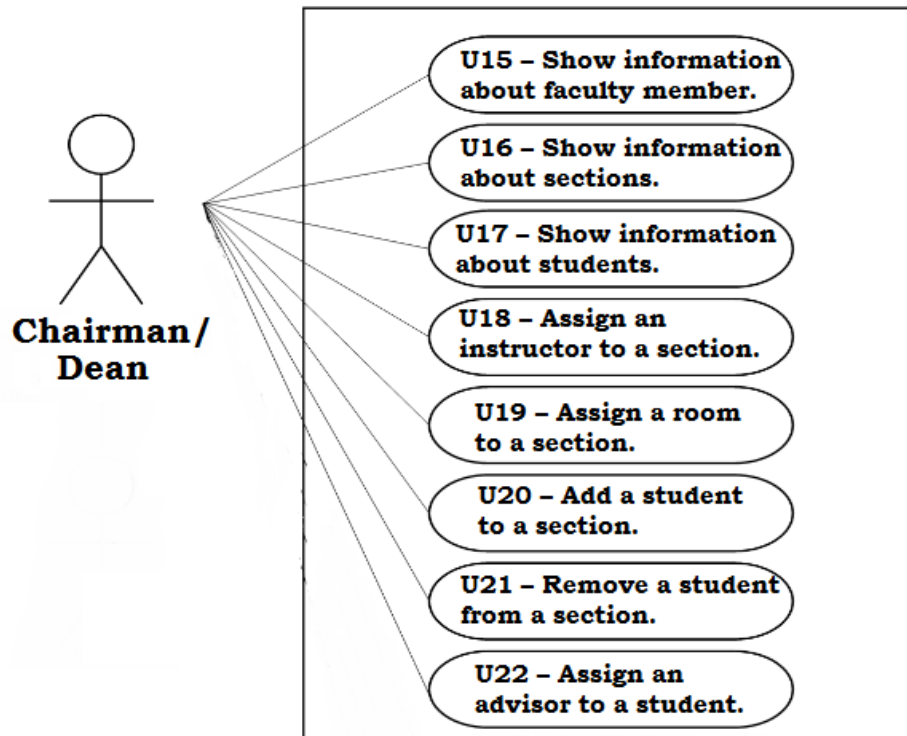
4. System Requirements:

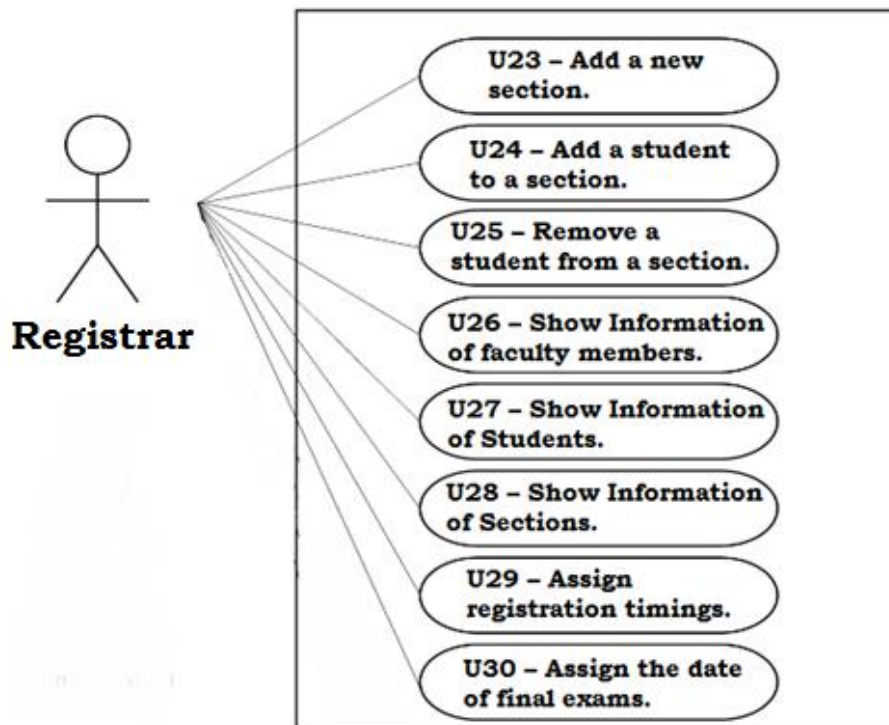## 4.1. Use Case Diagrams

a. Use Case Diagram for Student:

b. Use Case Diagram for Faculty members:

c. Use Case Diagram for Chairmen/Deans:

d. Use Case Diagram for Registrar:

4.2. Actors with their description

Student	An Undergraduate or graduate student at KFUPM
Faculty member	A current faculty member at KFUPM
Chairman/Dean	A current Chairman/Dean at KFUPM
Registrar	A registrar employee at KFUPM

4.3. For each use case, a brief description of the functionality

U1 – Search for course.

Use Case Number	1
Use Case Name	Search for course.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	The student logged in to the system.
Successful Post Condition	The courses that were searched by the student appear.
Actors	Students.
Priority	High
Difficulty	Medium
Version	1.0
Related Use Cases	U2
Main Flow	1. The student chooses "search for a course" functionality. 2. The student chooses the desired course and term from a list. 3. The course sections appear for the student. • If the course has no sections, then system gives a message for the student that tell him no section found.

U2 – Add a course.

Use Case Number	2
Use Case Name	Add a course.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	The Student logged in to the system.
Successful Post Condition	The course has been added.

Actors	Students
Priority	High
Difficulty	Low
Version	1.0
Related Use Cases	U1, U8
Main Flow	1. The student chooses "Add course" functionality. • If the student is not allowed to register, then the adding course functionality won't allow the student to register. 2. The student chooses the desired section to register. 3. The section is added for the student. • If section is closed, the system shows an error message. • If the course needs a prerequisite that student didn't take, the system shows an error message. • If there are any conflict in time with other courses, the system shows an error message for the student.

U3 – Drop a course.

Use Case Number	3
Use Case Name	Drop a course.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	The Student logged in to the system.
Successful Post Condition	The course has been dropped.
Actors	Students
Priority	High
Difficulty	Low
Version	1.0
Related Use Cases	U8
Main Flow	1. The student chooses the drop course functionality. • If it is not the specified time to drop courses, the system will show an error message. 2. The student chooses the desired course to drop. 3. The system takes a conformation from the student to make sure he really wants to drop the course. • If the student didn't confirm the conformation the system will not drop the course. 4. The student drops the course. 5. The system sends a message for the course instructor told him that the student dropped the course. 6. The system deletes the student information from the course's section.

U4 – Show curriculum.

Use Case Number	4
Use Case Name	Show curriculum.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	The Student logged in to the system.
Successful Post Condition	The curriculum is shown.
Actors	Students
Priority	Medium
Difficulty	Medium
Version	1.0
Related Use Cases	U6, U11
Main Flow	1. The student chooses "show curriculum" functionality. 2. The curriculum appears for the student.

U5 – Show Registration timings.

Use Case Number	5
Use Case Name	Show Registration timings.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	The Student logged in to the system.
Successful Post Condition	The registration timing is shown.
Actors	Students
Priority	Medium
Difficulty	Low
Version	1.0
Related Use Cases	U29
Main Flow	1. The student chooses "show registration timing" functionality. 2. The schedule of registration timing appears for the student. • If the timing of registration is not decided yet, the system shows an error message.

U6 – Show transcript.

Use Case Number	6
Use Case Name	Show transcript.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	The Student logged in to the system.
Successful Post Condition	The transcript is shown.
Actors	Students
Priority	Medium
Difficulty	Medium
Version	1.0

Related Use Cases	U4, U11
Main Flow	1. The student chooses the show transcript functionality.
	2. The transcript is shown to the student.

U7 – Show information of a course.

Use Case Number	7
Use Case Name	Show information of a course.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	Logged in to the system.
Successful Post Condition	Information of the course is shown.
Actors	Students
Priority	Medium
Difficulty	Low
Version	1.0
Related Use Cases	-
Main Flow	1. The student chooses any course, by clicking on its name.
	2. Information of the course is shown for the student.

U8 – Show weekly schedule.

Use Case Number	8
Use Case Name	Show the weekly schedule.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	Logged in to the system.
Successful Post Condition	The weekly schedule is shown.
Actors	Students
Priority	High
Difficulty	Low
Version	1.0
Related Use Cases	U2, U3, U20, U21, U24, U25
Main Flow	1. The Student will select "My schedule" tap.
	2. The Student will choose the week desired from a drop menu.
	3. The system shows the weekly schedule for the week selected.

U9 – Show information of academic advisor.

Use Case Number	9
Use Case Name	Show information of academic advisor.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	The Student logged in to the system.
Successful Post Condition	Information of the academic advisor is shown.
Actors	Students

Priority	Low
Difficulty	Low
Version	1.0
Related Use Cases	U14, U22
Main Flow	1. The student will go to his profile. 2. The student will click on his academic advisor name. 3. The information of the academic advisor is shown.

U10 – Show information of faculty member's sections.

Use Case Number	10
Use Case Name	Show information of faculty member's sections.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	The faculty member is logged in to the system.
Successful Post Condition	Information of the section is shown.
Actors	Faculty member.
Priority	High
Difficulty	Low
Version	1.0
Related Use Cases	U2, U3, U20, U21, U24, U25
Main Flow	1. The Faculty member will select "My sections" tap. • If the Faculty member has no sections assigned to him, the system shows the error message "No Sections Assigned". 2. The system shows all sections assign to the faculty member. 3. The faculty member chooses the desire section from a list. 4. The system shows all information related to the section selected (number of students, students' IDs, students' majors, room and building number…etc.).

U11 – Assign letter grade for each student in his sections.

Use Case Number	11
Use Case Name	Assign letter grade for each student in his sections.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	The faculty member is logged in to the system, assigned to at least one section.
Successful Post Condition	Grades are assigned to all students.
Actors	Faculty member.
Priority	High
Difficulty	Medium
Version	1.0
Related Use Cases	U6, U4
Main Flow	1. The Faculty member will select "My sections" tap. • If the Faculty member has no sections assigned to him, the system shows the error message "No Sections Assigned".

	2. The system shows all sections assign to the faculty member.
	3. The faculty member chooses the desire section from a list.
	4. The faculty member chooses "Assign grades" tap.
	5. The system shows the list of enrolled students in this section.
	6. The faculty member chooses the grade for each student from a drop menu next to each student name.
	• If a student has dropped the course or got a DN grade, there will be no drop menu next to his name.
	7. The faculty member clicks submit.

U12 – Enter attendance for his sections.

Use Case Number	12
Use Case Name	Enter attendance for his sections.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	The faculty member is logged in to the system, assigned to a section or more.
Successful Post Condition	Attendance done.
Actors	Faculty member.
Priority	High
Difficulty	Medium
Version	1.0
Related Use Cases	U6
Main Flow	1. The Faculty member will select "My sections" tap.
	• If the Faculty member has no sections assigned to him, the system shows the error message "No Sections Assigned".
	2. The system shows all sections assign to the faculty member.
	3. The faculty member chooses the desire section from a list.
	4. The faculty member chooses "Attendance" tap.
	5. The faculty member chooses the day from a drop menu.
	6. The system shows a list of students enrolled in this section.
	7. The faculty member clicks the check box next to each student who is present.
	8. The faculty member will click submit.

U13 – Show weekly schedule.

Use Case Number	13
Use Case Name	Show weekly schedule.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	The faculty member is logged in to the system.
Successful Post Condition	Weekly schedule is shown.
Actors	Faculty member.
Priority	High
Difficulty	Low

Version	1.0
Related Use Cases	U18, U19
Main Flow	1. The Faculty member will select "My schedule" tap. 2. The faculty member will choose the week desired from a drop menu. 3. The system shows the weekly schedule for the week selected.

U14 – Show information about students that he advises.

Use Case Number	14
Use Case Name	Show information about students that he advises.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	The faculty member is logged in to the system, advising at least one student.
Successful Post Condition	Information about the student is shown.
Actors	Faculty member.
Priority	Medium
Difficulty	Low
Version	1.0
Related Use Cases	U9, U22
Main Flow	1. The Faculty member will select "Advising" tap. • If there are no students being advised by the faculty member, the system show an error message "There is no student being advised". 2. The system shows a list of students who are being advised by the faculty member. 3. The faculty member will choose the desired student. 4. The system shows all academic information about the student (major, status, GPA, courses enrolled in... etc.)

U15 – Show information about a faculty member.

Use Case Number	15
Use Case Name	Show information about faculty member.
Author/Source	Team 3
Date of Creation	10/16/2018
Precondition(s)	The Chairman / Dean is already logged in.
Successful Post Condition	Information about the faculty member is shown.
Actors	Chairman / Dean
Priority	High
Difficulty	Low
Version	1.0
Related Use Cases	-
Main Flow	1. The Chairman / Dean selects "Faculty members" tap. 2. The system displays a list of faculty members and their personal information.

U16 – Show information about sections.

Use Case Number	16
Use Case Name	Show information about sections in their department.
Author/Source	Team 3
Date of Creation	10/16/2018
Precondition(s)	The Chairman / Dean is logged in.
Successful Post Condition	Information about sections in the department is shown.
Actors	Chairman / Dean
Priority	High
Difficulty	Low
Version	1.0
Related Use Cases	U23, U18, U19
Main Flow	1. The Chairman / Dean selects "Sections" tap. 2. The Chairman / Dean chooses the desired semester. • If the selected semester has no sections, the system shows an error message. 3. The system displays all of the sections, instructors and number of students in each section.

U17 – Show information about students.

Use Case Number	17
Use Case Name	Show information about students in their department.
Author/Source	Team 3
Date of Creation	10/16/2018
Precondition(s)	The Chairman / Dean is logged in.
Successful Post Condition	Information about students in the department is shown.
Actors	Chairman / Dean
Priority	Medium
Difficulty	Low
Version	1.0
Related Use Cases	U6
Main Flow	1. The Chairman / Dean selects "Students" tap. 2. The system shows a list of all students with their names, id's, majors and academic advisor.

U18 – Assign an instructor to a section.

Use Case Number	18
Use Case Name	Assign an instructor to a section.
Author/Source	Team 3
Date of Creation	10/16/2018
Precondition(s)	The Chairman / Dean is logged in.
Successful Post Condition	The instructor has been assigned to the section.
Actors	Chairman / Dean
Priority	High

Difficulty	Medium
Version	1.0
Related Use Cases	U8, U10, U11, U12, U13
Main Flow	1. The Chairman / Dean selects "Sections" tap.
	2. The Chairman / Dean chooses the desired semester.
	• If the selected semester has no sections, the system shows an error message.
	3. The system displays all of the sections, instructors and number of students in each section.
	4. The Chairman / Dean selects a section.
	5. The Chairman / Dean selects "Assign an instructor" tap.
	6. The system displays a list of available instructors to assign.
	• If there are no available instructors to assign, the system shows an error message.
	7. The Chairman / Dean then select's an instructor to assign.

U19 – Assign a room to a section.

Use Case Number	19
Use Case Name	Assign a room to a section.
Author/Source	Team 3
Date of Creation	10/16/2018
Precondition(s)	The Chairman / Dean is logged in.
Successful Post Condition	The room has been assigned to the section.
Actors	Chairman / Dean
Priority	High
Difficulty	Medium
Version	1.0
Related Use Cases	U8, U10, U11, U12, U13
Main Flow	1. The Chairman / Dean selects "Sections" tap.
	2. The Chairman / Dean chooses the desired semester.
	• If the selected semester has no sections, the system shows an error message.
	3. The system displays all of the sections, instructors and number of students in each section.
	4. The Chairman / Dean selects a section.
	5. The Chairman / Dean selects "Assign a room" tap.
	6. The system displays a list of available rooms to assign.
	• If there are no available rooms to assign, the system shows an error message.
	7. The Chairman / Dean selects one of the available rooms.

U20 – Add a student to a section.

Use Case Number	20
Use Case Name	Add a student to a section.
Author/Source	Team 3
Date of Creation	10/16/2018

Precondition(s)	The Chairman / Dean is logged in.
Successful Post Condition	The student has been added to the section.
Actors	Chairman / Dean
Priority	High
Difficulty	Low
Version	1.0
Related Use Cases	U8, U10, U16

Main Flow	1. The Chairman / Dean selects "Sections" tap.
	2. The Chairman / Dean chooses the desired semester.
	    • If the selected semester has no sections, the system shows an error message.
	3. The system displays all of the sections, instructors and number of students in each section.
	4. The Chairman / Dean selects a section.
	5. The Chairman / Dean selects "Add a student" tap.
	6. The Chairman / Dean enters the student's id and clicks add.
	    • If the entered id doesn't match any student id, the system shows an error message and prompts to try again.
	7. The system adds the student to the section.

U21 – Remove a student from a section.

Use Case Number	21
Use Case Name	Remove a student from a section.
Author/Source	Team 3
Date of Creation	10/16/2018
Precondition(s)	The Chairman / Dean is logged in.
Successful Post Condition	The student has been removed from the section.
Actors	Chairman / Dean
Priority	High
Difficulty	Low
Version	1.0
Related Use Cases	U8, U10, U16

Main Flow	1. The Chairman / Dean selects "Sections" tap.
	2. The Chairman / Dean chooses the desired semester.
	    • If the selected semester has no sections, the system shows an error message.
	3. The system displays all of the sections, instructors and number of students in each section.
	4. The Chairman / Dean selects a section.
	5. The Chairman / Dean selects "Remove a student" tap.
	6. The Chairman / Dean enters the student's id and clicks remove.
	    • If the entered id doesn't match any student id, the system shows an error message and prompts to try again.
	7. The system removes the student from the section.

U22 – Assign an advisor to a student.

Use Case Number	22
Use Case Name	Assign an advisor to a student.
Author/Source	Team 3
Date of Creation	10/16/2018
Precondition(s)	The Chairman / Dean is logged in.
Successful Post Condition	The advisor has been assigned to the student.
Actors	Chairman / Dean
Priority	High
Difficulty	Low
Version	1.0
Related Use Cases	U9, U14
Main Flow	1. The Chairman / Dean selects "Students" tap. 2. The system shows a list of all students with their names, id's, majors and academic advisor. 3. The Chairman / Dean clicks on a student. 4. The Chairman / Dean selects "Assign academic advisor" tap. 5. The Chairman/Dean enters the faculty member id, click assign. • If the entered id doesn't match any faculty member id, the system shows an error message and prompts to try again. 6. The Chairman / Dean confirms the action. 7. The system assigns the faculty member to advise the student.

U23 – Add a new section.

Use Case Number	23
Use Case Name	Add a new section.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	The registrar is logged in to the system, get conformation from the department to add new section.
Successful Post Condition	A new section is added.
Actors	Registrar
Priority	High
Difficulty	Medium
Version	1.0
Related Use Cases	U18, U19
Main Flow	1. The Registrar selects "Sections" tap. 2. The Registrar chooses a semester. 3. The Registrar chooses the desired course. 4. The new section is added.

U24 – Add a student to a section.

Use Case Number	24
Use Case Name	Add a student to a section.
Author/Source	Team 3

Date of Creation	16/10/2018
Precondition(s)	The registrar is logged in to the system, get approval from the department to add a student to a section.
Successful Post Condition	The student is added to the section.
Actors	Registrar
Priority	High
Difficulty	Low
Version	1.0
Related Use Cases	U8, U10, U16
Main Flow	1. The Registrar selects "Sections" tap. 2. The Registrar chooses the desired semester. 3. The Registrar chooses the desired department. • If the selected department has no sections in that semester, the system shows an error message. 4. The system displays all of the sections, instructors and number of students in each section. 5. The Registrar selects a section. 6. The Registrar selects "Add a student" tap. 7. The user enters the student's id and clicks add. • If the entered id doesn't match any student id, the system shows an error message and prompts to try again. 8. The system adds the student to the section.

U25 – Remove a student from a section.

Use Case Number	25
Use Case Name	Remove a student from a section.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	The registrar is logged in to the system, get approval from the department to remove a student from a section.
Successful Post Condition	The student is removed from the section.
Actors	Registrar
Priority	High
Difficulty	Low
Version	1.0
Related Use Cases	U8, U10, U16
Main Flow	1. The registrar selects "Sections" tap. 2. The registrar chooses the desired semester. 3. The registrar chooses the desired department. • If the selected department has no sections in that semester, the system shows an error message. 4. The system displays all of the sections, instructors and number of students in each section. 5. The registrar selects a section. 6. The registrar selects "Remove a student" tap. 7. The registrar enters the student's id and clicks remove.

| | • If the entered id doesn't match any student id, the system shows an error message and prompts to try again. |
| | 8. The system removes the student from the section. |

U26 – Show Information of faculty members.

Use Case Number	26
Use Case Name	Show Information of faculty members.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	The registrar is logged in to the system. Choose the desired department.
Successful Post Condition	Information of faculty members is shown.
Actors	Registrar
Priority	Medium
Difficulty	Low
Version	1.0
Related Use Cases	U15
Main Flow	1. The registrar selects "Faculty members" tap.
	2. The registrar search for the faculty member by entering his ID.
	• If the entered id doesn't match any faculty member id, the system shows an error message and prompts to try again.
	3. The system shows the information of the faculty member.

U27 – Show Information of Students.

Use Case Number	27
Use Case Name	Show Information of Students.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	The registrar is logged in to the system. Choose the desired major and year.
Successful Post Condition	Information of students is shown.
Actors	Registrar
Priority	Low
Difficulty	Low
Version	1.0
Related Use Cases	U17
Main Flow	1. The registrar selects "Students" tap.
	2. The registrar search for the student by entering his ID.
	• If the entered id doesn't match any student id, the system shows an error message and prompts to try again.
	3. The system shows the information of the student.

U28 – Show Information of Sections.

Use Case Number	28
Use Case Name	Show Information of Sections.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	The registrar is logged in to the system. Choose the desired course.
Successful Post Condition	Information of sections is shown.
Actors	Registrar
Priority	Medium
Difficulty	Low
Version	1.0
Related Use Cases	U16
Main Flow	1. The registrar selects "Sections" tap. 2. The registrar chooses the desired semester. 3. The registrar chooses the desired department. • If the selected department has no sections in that semester, the system shows an error message. 4. The system displays all of the sections, instructors and number of students in each section.

U29 – Assign registration timings.

Use Case Number	29
Use Case Name	Assign registration timings.
Author/Source	Team 3
Date of Creation	16/10/2018
Precondition(s)	The registrar is logged in to the system.
Successful Post Condition	Registration timings is assigned.
Actors	Registrar
Priority	High
Difficulty	Low
Version	1.0
Related Use Cases	U5
Main Flow	1. The registrar selects "Registration timings" tap. 2. The registrar selects the category of students. 3. The registrar enters the date/time of registration for that category. 4. The system informs the students about their registration timing.

U30 – Assign the date of final exams.

Use Case Number	30
Use Case Name	Assign the date of final exams.
Author/Source	Team 3
Date of Creation	16/10/2018

Precondition(s)	The registrar is logged in to the system.
Successful Post Condition	The date of final exams is assigned.
Actors	Registrar
Priority	High
Difficulty	Medium
Version	1.0
Related Use Cases	-
Main Flow	1. The registrar selects "Final Exams" tap. 2. The registrar selects a department. 3. The registrar selects a course. 4. The registrar enters the date/time of the final exam of that course. 5. The system informs the students enrolled in that course about the final exam timing.

4.4. Non-Functional Requirements

4.4.1. Availability
This system should always be available for access at 24 hours, 7 days a week. Also, in the occurrence of any major system malfunctioning, the system should be available in 8 to 20 hours, so that the registration/learning process is not severely affected.

4.4.2. Ease of use
Considered the level of knowledge possessed by the users of this system, a simple but quality user interface should be developed to make it easy to understand and required less training.

4.4.3. Security
The subsystems should provide a high level of security and integrity of the data held by the system, only authorized personnel of the university can gain access to the registrar's secured page on the system; and only users with valid password and username can login to view user's page.

4.4.4. Performance and Response time
The system should have high performance rate when executing user's input and should be able to provide feedback or response within a short time span usually 30 seconds for highly complicated task and 5 to 15 seconds for less complicated task.

4.4.5. Error handling
Error should be considerably minimized and an appropriate error message that guides the user to recover from an error should be provided. Validation of user's input is highly essential. Also, the standard time taken to recover from an error should be 10 to 15 seconds.

5. System Evolution

5.1. Recommending Courses to Take Next Terms.
The system shall recommend courses for the student to take in next terms.

5.2. Alert If Classes Are Far Away.
The system shall alert the student and faculty member if two consecutive classes are too far and will take more then 10 minutes to go from one to the other.

5.3. Show Recommended Credit Hours.
The system shall show the recommended credit hours for each student based on his previous term and his GPA in each term.

6. Conclusion

Document History:

Date	Version	Task Description	By
October 13, 2018	1.0	Team meeting to discuss the document and distribute tasks.	All team members
October 13, 2018	1.0	Introduction, Process Model.	Abdulrahman.K
October 14, 2018	1.0	User requirements, use cases diagrams and system evolution.	Abdulrahman.M
October 16, 2018	1.0	Use cases description and non-functional requirements.	Azzam & Mohammad
October 16, 2018	1.0	Revision for the document.	Abdulrahman.K & Abdulrahman.M
October 17, 2018	1.0	Thoroughly revision for the entire document.	All team members

7. References

- Sommerville, Ian. *Software Engineering, Tenth Edition*, course Textbook.
- https://www.smartdraw.com
- https://en.wikipedia.org/wiki/Software_development_process