**Campus resource management system**

**Phase 2**

Subject: System Analysis and Design

Code: SECD2613

Section 07

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**Overview of the project:**

This project is designed to solve this university systems issues. The main focus of the project is to deliver IS that handles large amounts of data and automates most of the processes to reduce errors. This project is covering four important areas to enhance its processes: Facility and booking management, Event management, student management and communication and notification.

**Problem statement:**

The current system suffers from frequent input errors and delaying of processes and the system output is usually similar or close to its input due to lack of critical processes. The system also lacks some essential technical hardware equipment, while depending mainly on human workforce without much computerized intervention.

Not to mention that the system is difficult to use for new users.

**Proposed solutions:**

To develop more advanced subsystems that can function together to maximize the output of the program, reduce the input errors, speed up the processes and can ease the management processes.

**Information gathering process:**

We used 3 methods to gather information about the current system and what the users want in the new system (2 interactive methods and 1 UNOBTRUSIVE).

The methods are:

1. Interview.
2. Questionnaire.
3. Investigation.
4. **Interview:**

…

1. **Questionnaire:**

….

1. **Investigation:**

…

**Requirement Analysis:**

Based on the information gathered we found information about current business processes, functional requirements, and non-functional requirements.

**Current business Process and workflow:**

**Facility booking and reservation management subsystem:**

In this subsystem we have 2 main entities student and booking management officer, so the processes are as follows:

1. Student: can book campus resources such as sport fields, libraries, restaurants, entertainment facilities, classrooms, etc..., they also can make all types of facility reservations as an example rooms reservations, suites reservations and facility reservations.
2. Booking management officer: can check the availability of facilities, confirm or deny reservations, issuing reservation slip containing information about the users, the reserved facility and the date, and can be stored in reservation data store.

The workflow:

1. The student goes to the booking management office.
2. Then the student provides his/her information including name, ID.
3. Then the student provides the reservation details, including date and what facility wants to book.
4. Then the officer checks for the availability of the requested facility.
5. Then the officer provides information about if the facility is available on that date or not to the student.
6. And then the officer asks the student if they would like to confirm the reservation.
7. If the student confirms the officer will issue a slip containing the information about the reservation and make another copy to store it and change the availability of the facility.

**Event management subsystem:**

In this subsystem we have 2 main entities student and event management officer, so the processes are as follows:

1. Student: can register for the events.
2. Booking management: can make schedules for upcoming events, manage events for the students to register and can confirm registration for students and prints a paper with the attendance list.

The workflow:

1. The student goes to the event management office.
2. Then the student provides his/her information including name, ID.
3. Then the student provides the event details that wishes to go to.
4. Then the officer checks the event information.
5. Then the officer registers the student for the event.
6. The officer confirms the registration for and student and the student’s information in the attendance list.
7. In the same day as the event the officer prints a list of the students that can enter the event.

**Student management subsystem:**

In this subsystem we have 2 main entities student and administrator, so the processes are as follows:

1. Student: can enroll for the university, register for courses, access schedule and academic profile.
2. Booking management officer: can complete Enrollment of new students, complete course registration for students, manage student records (edit, store, delete, show it to the student) and manage student activities.

The workflow:

1. The student goes to the administrator’s office.
2. Then the student provides his/her information including name, passport and etc… (for enrollment).
3. The administrator takes the information to complete the enrollment.
4. Then the administrator issues the student ID for the student after the enrollment confirmation, issue a slip for the student and creates a student record for the student that also includes the student academic profile.
5. The administrator provides information about available courses that the student can register for and the limit for credit hours.
6. Then the student chooses the courses he/she would like to register for.
7. Then the administrator registers the courses for the students and stores it in the student record.
8. Finally, the administrator gives the student the schedule for the registered courses.