

**ADSS ASSIGNMENT 2**

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## GROUP: 13

## DEPARTMENT: COMPUTER SCIENCE

## SEMESTER: IV

## COURSE CODE: CS-222

## COURSE TITLE: ADSS

**Part 1:** List the purpose/objectives of the system and identify users of the system ( Adnan Sultan )

**Purpose/Objectives of the System:**

**Course Registration:** The system aims to facilitate the course registration process for students by providing a web-based platform where they can select and register for courses based on their program and semester.

**Course Assignment:** The system should enable staff members to assign courses to teachers for each semester. This helps ensure proper distribution of teaching responsibilities and optimal utilization of faculty resources.

**Course Evaluation Management:** The system should allow teachers to enter and manage course evaluation marks, including quizzes, assignments, sessional tests, and final exams. It simplifies the process of evaluating students' performance and maintaining their assessment records.

**Efficiency and Error Reduction:** The system aims to streamline the course registration and evaluation processes, reducing manual paperwork and potential errors. It provides a centralized platform for managing course-related activities, enhancing efficiency and accuracy.

**Information Accessibility:** The system should provide relevant information to various stakeholders, such as students, teachers, staff, department heads, and academic advisors. Users can access course offerings, registration status, evaluation marks, and other important information through the system.

**Users of the System:**

**Students:** They use the system to register for courses, view available courses, and check their course evaluation marks**.**

**Teachers:** They utilize the system to view the courses assigned to them, enter course evaluation marks, and monitor students' progress**.**

**Administrators:** They have administrative privileges to manage the course registration process, assign courses to teachers, and oversee system configuration and maintenance.

**Department Heads:** They access the system to monitor and supervise the course registration and evaluation processes, ensuring smooth operations within the department.

**Academic Advisors:** They may utilize the system to provide guidance to students regarding course selection and registration, assisting them in making informed decisions about their academic path**.**

**System Administrator**: Responsible for maintaining the system, ensuring its availability, security, and resolving any technical issues that may arise.

**External Auditors:** They may access the system to review and audit the course evaluation process, ensuring compliance with academic standards and policies.

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**5) Write down one important use case in detailed format.**

**Use Cases:**

**User Authentication:**

**Description:** This use case involves the authentication of users accessing the web-based system, ensuring that only authorized individuals can log in.

**Actors:** Student, Teacher, Administrator

**Preconditions:** The user has a valid login ID and password.

**Basic Flow:**

The user enters their login credentials.

The system verifies the credentials against the stored user database.

If the credentials are valid, the user is granted access to the system.

If the credentials are invalid, the system displays an error message and prompts the user to re-enter the correct credentials.

**Postconditions:** The user gains access to the system or receives an error message.

**Course Registration:**

**Description:** This use case involves the process of course registration for students, allowing them to select and register for courses based on their program and semester.

**Actors:** Student, Administrator

**Preconditions**: The student is logged into the system, and course offerings and program-specific rules are defined.

**Basic Flow:**

The student selects the "Course Registration" option from the system.

The system identifies the student's program and semester.

The system retrieves the list of available courses based on the program and semester.

The system presents the available courses to the student.

The student selects desired courses within the allowed limits.

The system validates the selected courses against program-specific rules.

If the selection is valid, the system saves the course details associated with the student.

The system displays a confirmation message showing the selected courses.

**Postconditions:** The student's selected courses are saved in the system, and a confirmation message is displayed.

**Course Evaluation Management:**

**Description:** This use case focuses on the management of course evaluation marks by teachers and the availability of those marks to relevant personnel.

**Actors:** Teacher, Student, Staff

**Preconditions**: Courses are assigned to teachers, and students are registered for the courses.

**Basic Flow:**

The teacher logs into the system and selects the assigned course.

The system displays the course details and the list of enrolled students.

The teacher enters evaluation marks (quizzes, assignments, tests, exams) for each student.

The system validates the entered marks for accuracy and adherence to any specific grading criteria.

The system saves the evaluation marks associated with each student and course.

Students can access their course evaluation marks through the system.

Administrators can view evaluation marks for monitoring and record-keeping purposes.

**Postconditions:** The course evaluation marks are saved in the system and are accessible to students and relevant staff members.

**Important Use Case: Course Registration**

**Description:** This use case is essential as it enables students to register for courses based on their program and semester, ensuring a smooth and efficient course selection process.

**Actors:** Student, Administrator

**Preconditions:** The student is logged into the system, and course offerings and program-specific rules are defined**.**

**Basic Flow:**

The student selects the "Course Registration" option from the system.

The system identifies the student's program and semester.

The system retrieves the list of available courses based on the program and semester.

The system presents the available courses to the student, displaying relevant details such as course code, title, instructor, and schedule.

The student selects the desired courses by marking the checkboxes next to each course.

The system verifies the selected courses against program-specific rules:

For MSc students: The system checks if the student has selected a maximum of five courses.

For MPhil and PhD students: The system checks if the student has selected a maximum of four courses.

If the selected course count exceeds the allowed limit, an error message is displayed, and the student is prompted to revise their selection.

Once the selected courses pass the validation, the student confirms their course selection.

The system saves the course details associated with the student's ID and semester.

The system displays a confirmation message, listing the courses successfully registered by the student.

**Postconditions:** The student's selected courses are saved in the system, and a confirmation message is displayed.

The Course Registration use case is critical as it forms the foundation for the entire course registration process. It allows students to select courses within the allowed limits, ensuring compliance with program-specific rules. By validating the course selection and providing a confirmation message, the system reduces errors and provides students with clarity regarding their registered courses. This use case simplifies the registration process, enhances efficiency, and minimizes the chances of course selection errors.

Part 6: Develop the context level and detailed DFD ( Zakir )

