

GAZI UNIVERSITY FACULTY OF ENGINEERING

COMPUTER ENGINEERING



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191180005

Takehome Final Exam

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Object Oriented Analysis and Design - CENG361

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Q (1)

Here are 3 actors, 4 stakeholders, and their corresponding use cases for the student self-service system:

Actors:

Student: The primary user of the system who interacts with it to perform various tasks.

Professor: Responsible for submitting grades for courses.

Administrator: Manages the system, performs administrative tasks, and resolves issues.

Stakeholders:

Dublin City University (DCU): The university implementing the system and responsible for student enrollment, registration, and payment.

XYZ Bank: The bank providing the flexible bank account and integration for convenient payment.

Focus Groups: Student-led focus groups engaged to assess the quality and acceptance of the application.

System Developers: The team responsible for developing and maintaining the system.

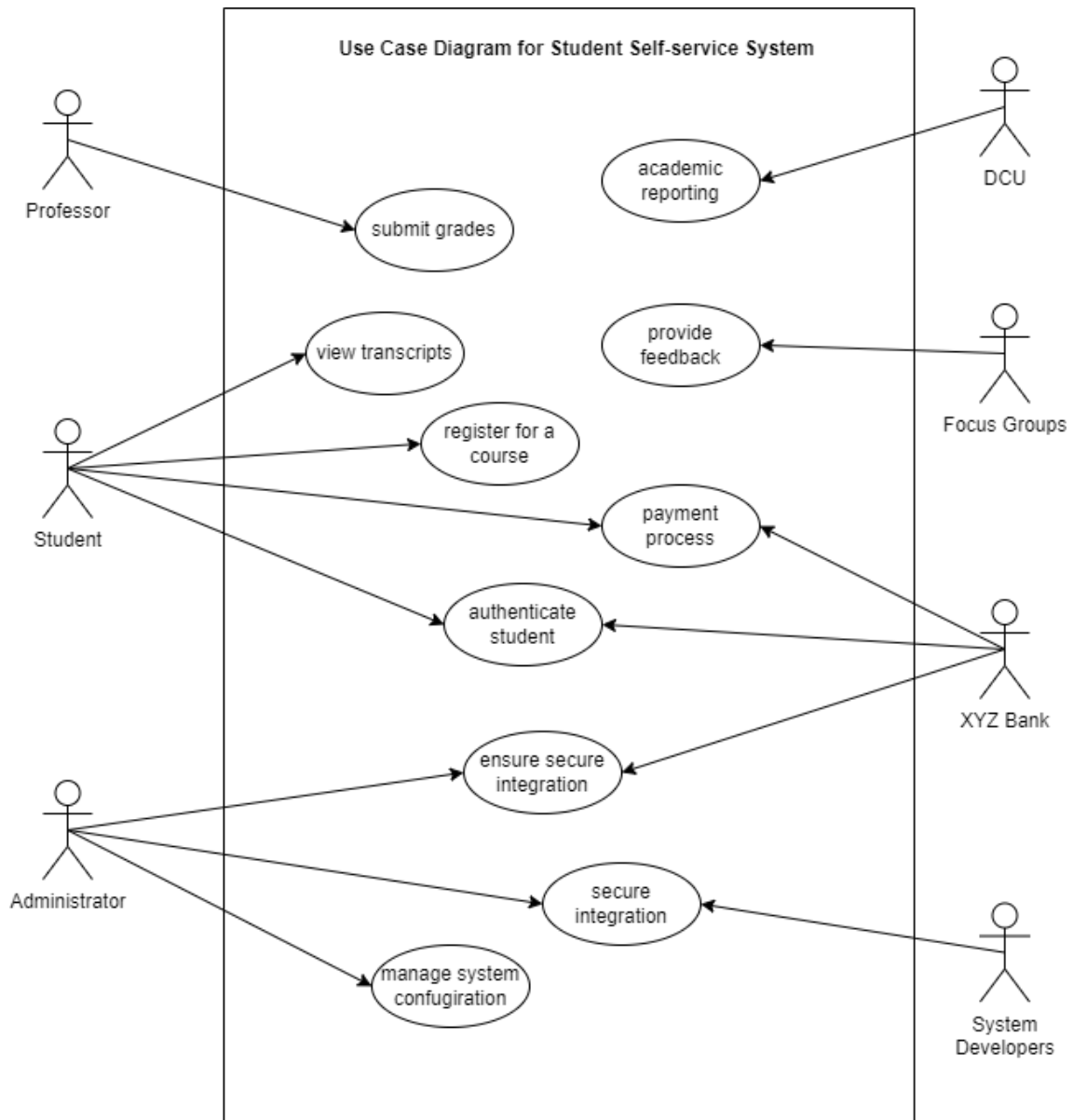
Use Cases:

View Transcripts: The student can access their current transcripts to see their academic records.

Register for Course: The student can register for a course in the next quarter based on their major/minor selections, available courses, and fulfilled prerequisites.

Submit Grades: The professor can submit grades for a course for a student.

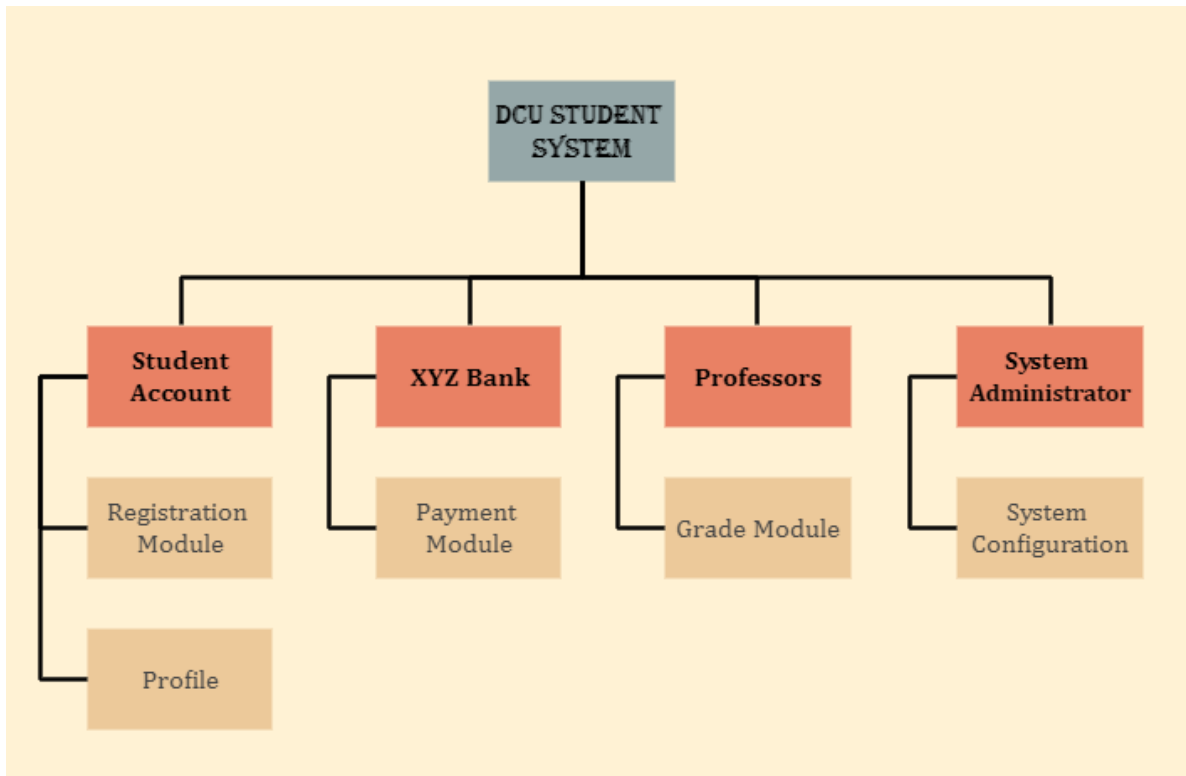
Manage System: The administrator can perform administrative tasks such as system configuration, user management, and issue resolution.



Requirements:

- The system should allow students to view their current transcripts.
- The system should provide course registration functionality based on major/minor selections, available courses, and fulfilled prerequisites.
- Professors should be able to submit grades for courses.
- The system should support administrative tasks such as system configuration, user management, and issue resolution.
- Integration with XYZ Bank's systems should be implemented securely to ensure the smooth transfer of funds for course payments.

Q (2)



Reviewer 1 Feedback:

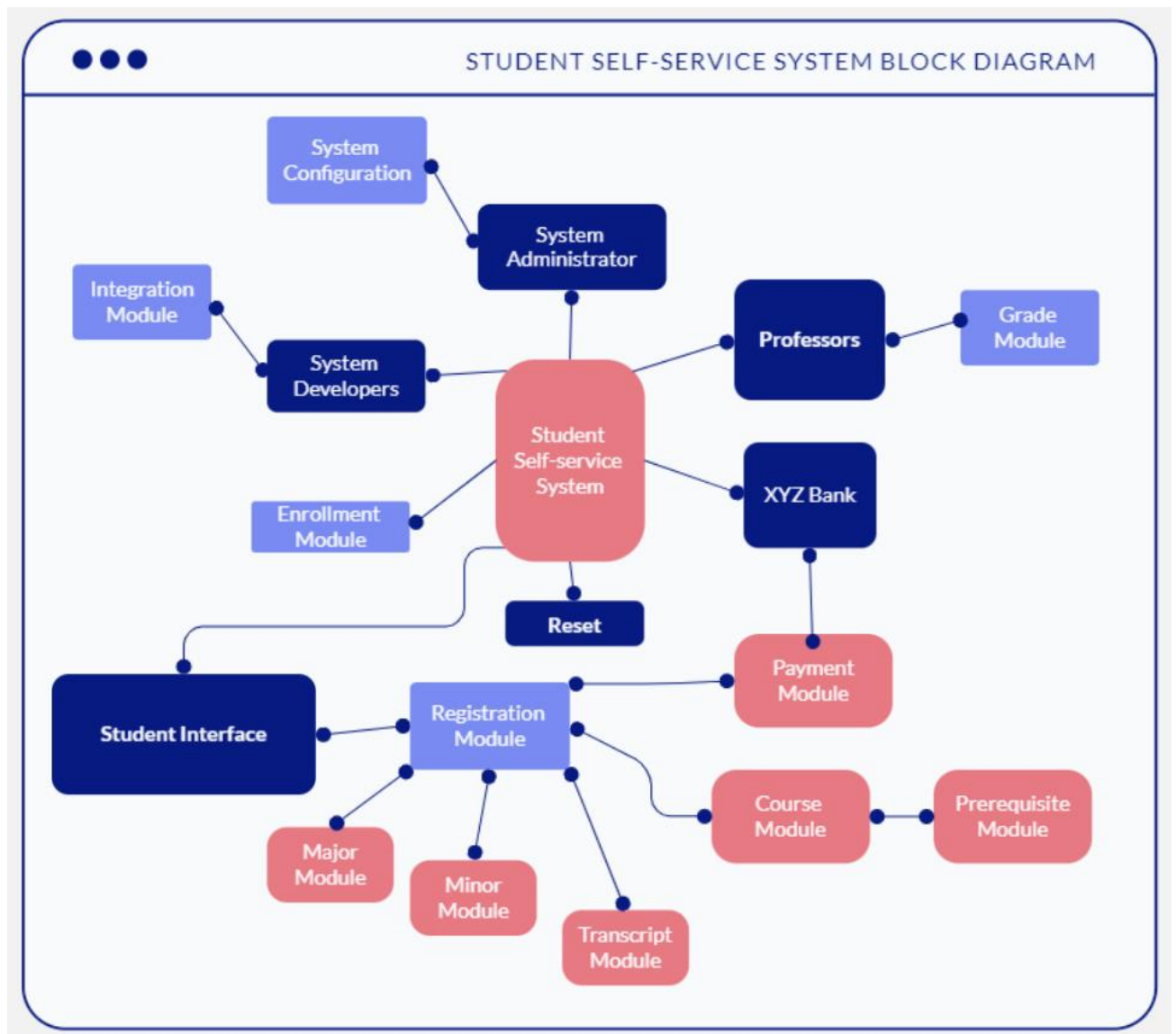
- Ensure clear labeling of each module in the diagram to improve readability.
- Include a legend or key to explain the meaning of different symbols or shapes used in the diagram.
- Verify if the diagram includes modules related to security measures, such as authentication and authorization, to address the security requirement.

Reviewer 2 Feedback:

- Consider using color-coding to distinguish between different types of modules or functionalities.
- Assess the inclusion of integration modules, such as payment integration and XYZ Bank integration, to ensure seamless communication between the system and external services.

Reviewer 3 Feedback:

- Consider organizing the modules in a more hierarchical or layered manner to showcase the system's architecture.
- Consider adding directional arrows to indicate the flow of data or control between different modules.



Q (3)

Stakeholder	Viewpoints	Concerns
Dublin City University (DCU)	- Efficient student enrollment, registration, and payment processes.	- Integration and security of the system with XYZ Bank.
	- Accurate tracking of student course records and transcripts.	- User acceptance and satisfaction with the self-service system.
	- Seamless integration between the DCU system and XYZ Bank system.	- Data privacy and protection of student and financial information.
XYZ Bank	- Convenient and secure payment processes for students.	- Seamless integration with the DCU student self-service system.
	- Efficient transfer and management of funds for course payments.	- Security of financial transactions and data.
	- Positive user experience and satisfaction with the bank account.	- Compliance with banking regulations and standards.
Focus Groups	- User-friendly and intuitive interface for students.	- System functionality meets student needs and expectations.
	- Accessibility of the system through different devices and channels.	- Identification of usability issues and areas for improvement.
	- Timely and accurate course registration and payment processes.	- Effectiveness of system communication and notifications.
System Developers	- Development and deployment of a reliable and scalable system.	- Integration challenges between DCU and XYZ Bank systems.

	- Robust security measures to protect student and financial data.	- Timely bug fixes and maintenance to ensure system stability.
	- Efficient system performance to handle high user loads.	- Adaptability to future technological advancements and updates.

Q (4)

<https://youtu.be/ztdrTVujyg4>