

Software Engineering Spring '24
Iteration 0 - Problem Statement & User Stories



Topic: *One Stop Degree Issuance System*

Submitted by:

Fizza Mumtaz, Momina Khalid, Vaneeza Ahmad

21I-0437, 21I-0517, 21I-0390

BS (CS) - A

Submitted to:

Ms. Syeda Javeria Imtiaz

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Problem Statement

The Problem of	delayed and time-consuming issuing of academic degrees
affects	the students, administrative staff, financial and FYP departments
the impact of which is	prolonged waiting times for degree clearance, increased workload on administrative staff, and delay in employment opportunities of students
a successful solution would be	a one-stop web based degree issuance system, which enables students to submit requests online and allows them and other departments to track the degree issuance process. It allows the administrative staff to review, process and generate digital degrees. The system integrates with the existing university database to ensure a smooth workflow for both students and staff members.

Product Backlog

Story ID : 1

Feature	Admin Dashboard
As a	One Stop Admin
I want to	have centralized dashboard for all my tasks
so that	I can oversee all degree issuance activities and timely complete my responsibilities.
Acceptance Criteria	Given that the One Stop Admin is logged into the system <ol style="list-style-type: none">When they access the centralized dashboard Then they should see a comprehensive view of all degree issuance activities (requests, alerts etc).When they select a specific task or application Then they should be redirected to a detailed view of that task.

Story ID : 2

Feature	Token Generation for Student Requests & Complaints
As a	One Stop Admin
I want to	generate tokens for each student request and student complaint
so that	Each query can be uniquely identified, tracked, and managed efficiently through the resolution process.
Acceptance Criteria	Given that a new student request or complaint is submitted <ol style="list-style-type: none">1. When the request or complaint is received by the system Then a unique token should be automatically generated for that request or complaint.2. When the token is generated Then the student should be notified of “received” and the request/complaint should appear on the admin’s requests/complaints page.

Story ID : 3

Feature	Manage Student Requests
As a	One Stop Admin
I want to	manage (all pending, processed and new) degree and transcript requests
so that	I can ensure timely responses, maintain a high standard of service, and effectively prioritize the tasks.
Acceptance Criteria	Given that the One Stop Admin is logged into the system <ol style="list-style-type: none">1. When they access the Manage Requests feature Then they should be able to view all pending, processed and new requests and filter them as well.2. When they select a request to view more details Then they should be presented with all relevant information and actions/responses to be taken on that request.

Story ID : 4

Feature	Manage Student Complaints
As a	One Stop Admin
I want to	I want to manage student complaints
so that	I can respond to and resolve them timely for students.
Acceptance Criteria	Given that a One Stop Admin is logged into the system When they access the Manage Student Complaints section Then they should be able to view all complaint forms submitted by students, and respond via comments or perform actions accordingly.

Story ID : 5

Feature	Generate and Issue Degree Certificate
As a	One Stop Admin
I want to	generate digital degrees and issue them to particular students
so that	graduates receive their degrees promptly and the system accurately reflects the updated status of each request.
Acceptance Criteria	Given that the Student has been approved for graduation <ol style="list-style-type: none">1. When the admin selects the student for degree issuance Then the system should generate a digital degree certificate and send it to the student.2. When the degree is generated Then the system should update the student's status and the admin should be able to close the request.

Story ID : 6

Feature	Student Academic Record Access
As a	One Stop Admin
I want to	have access to all academic records of students
so that	I can generate a degree and transcript with the correct student credentials.
Acceptance Criteria	Given that the One Stop Admin is logged into the system <ol style="list-style-type: none">1. When they search for a student by ID to access academic record of a student Then they should be able to view all records of the student, including courses taken, grades awarded etc.2. When they update any academic record (spelling mistake etc) Then the system should update the record and integrate changes with the generated degree.

Story ID : 7

Feature	Generate and Issue Student Transcript
As a	One Stop Admin
I want to	generate student transcripts and issue them to particular students
so that	graduates receive their comprehensive academic records and provide them to employers as per need.
Acceptance Criteria	Given that a student or graduate requests their transcript <ol style="list-style-type: none">1. When the admin initiates transcript generation Then the system should compile all academic records into transcript format.2. When the admin issues the transcript to student Then the system should send it to the student and mark the request as processed.

Story ID : 8

Feature	Objection Alerts
As a	One Stop Admin
I want to	inform students about any objection from FYP or Finance Department
so that	students are aware and can promptly address the problems preventing their degree issuance.
Acceptance Criteria	Given that an objection to degree issuance is raised by either the FYP or Finance Department, 1. When the objection is logged into the system Then the admin should be able to receive and view the objection. 2. When the admin informs the student about objection Then the system should send an alert to the student regarding the objection.

Story ID : 9

Feature	Student Profile Verification
As a	One Stop Admin
I want to	verify student's information and eligibility for degree issuance
so that	degrees are issued accurately and only to candidates who have met all the necessary academic and financial requirements.
Acceptance Criteria	Given that a student has applied for degree issuance, 1. When the admin initiates the verification process, Then the system should automatically check the student's academic records (credit hours and CGPA) as well as financial records to ensure all dues are cleared. 2. When the verification process is complete Then the system should notify admin about student's eligibility and allow them to continue.

Story ID : 10

Feature	Batch Processing
As a	One Stop Admin
I want to	perform bulk actions and process requests in batches
so that	I can efficiently and timely manage requests during peak times such as, end of an academic term or semester.
Acceptance Criteria	<ol style="list-style-type: none">1. Given that there are multiple requests pending action, When the admin views these requests Then they should be able to select multiple requests at once for batch processing, using criteria such as request type, or status.2. Given that multiple requests have been selected, When admin selects a batch action (approve, issue, close etc) Then that action should be applied to all selected requests simultaneously.

Story ID : 11

Feature	Reporting and Analytics
As a	One Stop Admin
I want to	generate reports (on the degree and requests statistics) and other analytics
so that	They help me identify patterns, monitor the system efficiency and recognize areas for improvement.
Acceptance Criteria	<p>Given that the admin wants to understand the volume and types of requests</p> <ol style="list-style-type: none">1. When they access the reporting feature Then the system should provide options to generate reports on degree issuance, transcript requests, student queries etc.2. When they generate the report Then the system should show real-time current data.

Story ID : 12

Feature	Degree Issuance Form Submission
As a	Student
I want to	submit my degree issuance form
so that	I can formally request the issuance of my degree from the university
Acceptance Criteria	Given that a student is logged into the system When they complete all required fields of the degree issuance form Then they should be able to submit the form successfully

Story ID : 13

Feature	Complaint Form Submission
As a	Student
I want to	file a complaint for any spelling mistakes or errors in my documents
so that	I can ensure the accuracy of my academic records.
Acceptance Criteria	Given that a student is logged into the system When they access the Complaint Form section Then they should be able to submit a complaint specifying the errors found in their documents.

Story ID : 14

Feature	Activity Tracking
As a	Student
I want to	track the activity of my degree issuance request
so that	I can stay informed about its progress.
Acceptance Criteria	Given that a student is logged into the system When they access the Activity Tracking section Then they should be able to monitor the status of their degree issuance request, including pending, processing, and delivered.

Story ID : 15

Feature	Degree Issuance Notification
As a	Student
I want to	receive a notification when my degree is ready for collection or delivery
so that	I can obtain it for further academic or professional purposes.
Acceptance Criteria	Given that a student's degree is ready for collection or delivery When they receive a notification from the university Then the notification should provide instructions for collecting or receiving the degree.

Story ID : 16

Feature	Student Notification for Degree Issuance
As a	member of the FYP Department
I want to	notify students about the status of their degree issuance requests
so that	they can be informed about the progress of their degree.
Acceptance Criteria	Given that a decision is made regarding a degree issuance request When a member of the FYP Department provides a decision Then the system should automatically send a notification to the student regarding the outcome.

Story ID : 17

Feature	Degree Issuance Decision Making
As a	member of the FYP Department
I want to	provide a decision on degree issuance requests
so that	the requests can be processed accordingly.
Acceptance Criteria	Given that a member of the FYP Department is logged into the system When they access the Manage Requests section Then they should be able to select a request and provide a decision (accept, reject, or object with comments).

Story ID : 18

Feature	Time Tracking for Degree Issuance
As a	member of the FYP Department
I want to	track the time taken by the FYP committee to process degree issuance requests
so that	We can monitor and improve our efficiency.
Acceptance Criteria	Given that a member of the FYP Department is logged into the system When they access the Manage Requests section Then they should be able to view the timestamp indicating when the request was received and when a decision was made.

Story ID : 19

Feature	Request Details Reviewing
As a	member of the FYP Department
I want to	review all details provided by a student in their degree issuance request
so that	I can make informed decisions.
Acceptance Criteria	Given that a member of the FYP Department is logged into the system When they access the Manage Requests section Then they should be able to select a request and view all details provided by the student, including attachments and comments.

Story ID : 20

Feature	Collaboration with Finance Department
As a	member of the FYP Department
I want to	collaborate with the Finance Department regarding financial aspects of degree issuance
so that	I can ensure all financial requirements are met.
Acceptance Criteria	Given that a member of the FYP Department is logged into the system When they access the Manage Requests section Then they should be able to coordinate with the Finance Department by viewing the relevant financial records.

Story ID : 21

Feature	Notification Center for Degree Issuance Requests
As a	Finance Accountant
I want to	access all the notifications for students' degree issuance requests
so that	I can further verify their respective credentials and respond to them accordingly.
Acceptance Criteria	<ol style="list-style-type: none">1. Given that an accountant is logged in, When he/she clicks on the notification button Then the system displays all the student requests received regarding degree issuance.2. Given that the accountant navigates to the notification tab, When wanting to sort requests according to the recently received, Then the topmost section displays the most recently received requests.

Story ID : 22

Feature	Roll Number Search for Financial Records
As a	Finance Accountant
I want to	search for specific student's financial records through roll number
so that	I can look up for their outstanding dues if any.
Acceptance Criteria	<ol style="list-style-type: none">1. Given that the accountant enters the roll number and batch number for a specific student. When he/she dives into the student financial records Then the system should highlight any outstanding fee the student has to pay along with further details such as the due date.2. Given that an accountant searches for a specific student in the list. When he/she tries to access the student's outstanding dues. Then then all the dues along with the due date and payment method should be visible to the accountant.

Story ID : 23

Feature	Degree Issuance Fee Status
As a	Finance Accountant
I want to	check if the student has submitted the degree issuance fee
so that	I could ensure his/her eligibility for degree collection.
Acceptance Criteria	<ol style="list-style-type: none">1. Given that accountant enters the complete roll number for a specific student. When wanting to check the students submission of degree issuance fee Then the system displays the status of fee as paid or unpaid in the degree Issuance fee tab2. Given that the accountant searches for students that have paid the degree issuance fee. When he/she tries to access the any specific student in that list Then the details of the student along with the paid status should be displayed on the screen.

Story ID : 24

Feature	Comment Functionality for Student Eligibility
As a	Finance Accountant
I want to	add comment regarding the student's eligibility for degree collection
so that	the students should get informed about the clearance issues that they have to fix for degree issuance.
Acceptance Criteria	<ol style="list-style-type: none">1. Given that the accountant dives into the student section. When he/she tries to comment the student on fee related matters Then a text box should pop up for him/her to write the details.2. Given that the accountant searches for student's roll number When he/she tries to write a comment to the student regarding fee matters Then the system opens up the comment section for the accountant and the student to interact through it and the student gets an email as a notification of the comment.

Story ID : 25

Feature	Student Eligibility Status Update
As a	Finance Accountant
I want to	update the student status to eligible for degree after their dues' clearance.
so that	the students who cleared their dues could receive their degrees on time without any further delay.
Acceptance Criteria	<ol style="list-style-type: none"> 1. Given that the accountant dives into the student eligibility section. When he/she tries to update the student status for degree collection. Then a checkbox appears for the accountant to tick mark it after verifying the student's fee records. 2. Given that the accountant searches for student's roll number When he/she tries to shift the student's status from ineligible to eligible Then the system gives access to the accountant to change the current status of the student along with sending a congratulations email to the student as a confirmation.

Story ID : 26

Feature	Request Monitoring Director Dashboard
As a	Campus Director
I want to	view all requests that are generated throughout the day
so that	I could monitor all the internal operations of the One Stop system
Acceptance Criteria	<ol style="list-style-type: none"> 1. Given that:the director opens up the requests page. When: he/she wants to access the requests along with the details Then: each and every request of the day along with the sender and receiver name, time and response duration should be visible 2. Given that: the director navigates into the requests channel of the system. When he/she tries to see the request sent to One Stop Centre Then: the system shows the sorted list of requests for the day with the recent most at the top

Story ID : 27

Feature	Request Inbox for Campus Director
As a	Campus Director
I want to	view all requests made directly to me
so that	I could answer them quickly along with passing orders accordingly.
Acceptance Criteria	<ol style="list-style-type: none">1. Given that the director opens up the private requests page. When he/she wants to read and answer the requests made directly to him/her. Then the system should show complete details of the requests and open up the reply mode for sending a response to that request after processing it.2. Given that the director navigates into the requests page. When he/she searches for a specific subject of request. Then the complete list of requests regarding that specific subject is visible to the Director.

Story ID : 28

Feature	Time Taken to Respond (TTR) Metrics:
As a	Campus Director
I want to	view the TTR (time taken to respond) to each request
so that	I could configure the weaknesses of the system and reasons for the delay time along with ensuring that student queries are addressed promptly.
Acceptance Criteria	<ol style="list-style-type: none">1. Given that the director opens up the made-requests page. When he/she wants to check the answered queries along with the time taken. Then the system should display the sorted list to the Director for the answered requests along with response time in ascending order.2. Given that the director navigates into the requests page. When he/she searches for the requests whose response was generated too late. Then the system displays the request nature and receiver's name for the director to inquire about the delay.

Story ID : 29

Feature	Notification System for Request Processing Initiation
As a	Campus Director
I want to	get notified for the initiation of the request processing by the One Stop Admin
so that	could stay informed about the progress of the request.
Acceptance Criteria	<ol style="list-style-type: none">1. Given that the Director of the Campus is logged into the system When the One Stop Admin initiates the processing of a request Then the Director receives a notification indicating that the request is now in the processing phase.2. Given that multiple requests are in the processing phase, When the director wants to check the request dashboard Then the system makes an organized and clear list of requests available to the Director for tracking all the activities.

Story ID : 30

Feature	Fee Clearance Request Dashboard
As a	Campus Director
I want to	review requests sent to students for clearing their outstanding fees in a timely manner
so that	I can ensure student's satisfaction upon updates and smooth system functioning regarding the financial matters.
Acceptance Criteria	<ol style="list-style-type: none">1. Given that the Director wishes to view detailed information about a specific fee clearance request,, When clicking on the relevant request in the dashboard Then a detailed information page opens, showing fields as the student's name, outstanding amount and the due date.2. Given that the Campus Director requires an overview of all fee clearance requests, When navigating to the financial dashboard, Then a well-organized list of outstanding fee clearance requests is available, showcasing key details for each request.

Sprint Backlog

(User stories to be implemented in the first sprint)

Story ID : 1

Feature	Admin Dashboard
As a	One Stop Admin
I want to	have centralized dashboard for all my tasks
so that	I can oversee all degree issuance activities and timely complete my responsibilities.
Acceptance Criteria	Given that the One Stop Admin is logged into the system <ol style="list-style-type: none">1. When they access the centralized dashboard Then they should see a comprehensive view of all degree issuance activities (requests, alerts etc).2. When they select a specific task or application Then they should be redirected to a detailed view of that task.

Story ID : 2

Feature	Token Generation for Student Requests & Complaints
As a	One Stop Admin
I want to	generate tokens for each student request and student complaint
so that	Each query can be uniquely identified, tracked, and managed efficiently through the resolution process.
Acceptance Criteria	Given that a new student request or complaint is submitted <ol style="list-style-type: none">1. When the request or complaint is received by the system Then a unique token should be automatically generated for that request or complaint.2. When the token is generated Then the student should be notified of “received” and the request/complaint should appear on the admin’s requests/complaints page.

Story ID : 12

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I want to	file a complaint for any spelling mistakes or errors in my documents
so that	I can ensure the accuracy of my academic records.
Acceptance Criteria	Given that a student is logged into the system When they access the Complaint Form section Then they should be able to submit a complaint specifying the errors found in their documents.

Story ID : 21

Feature	Notification Center for Degree Issuance Requests
As a	Finance Accountant
I want to	access all the notifications for students' degree issuance requests
so that	I can further verify their respective credentials and respond to them accordingly.
Acceptance Criteria	<ul style="list-style-type: none">3. Given that an accountant is logged in, When he/she clicks on the notification button Then the system displays all the student requests received regarding degree issuance.4. Given that the accountant navigates to the notification tab, When wanting to sort requests according to the recently received, Then the topmost section displays the most recently received requests.

Story ID : 26

Feature	Request Monitoring Director Dashboard
As a	Campus Director
I want to	view all requests that are generated throughout the day
so that	I could monitor all the internal operations of the One Stop system
Acceptance Criteria	<ul style="list-style-type: none">3. Given that:the director opens up the requests page. When: he/she wants to access the requests along with the details Then: each and every request of the day along with the sender and receiver name, time and response duration should be visible4. Given that: the director navigates into the requests channel of the system. When he/she tries to see the request sent to One Stop Centre Then: the system shows the sorted list of requests for the day with the recent most at the top

Roles

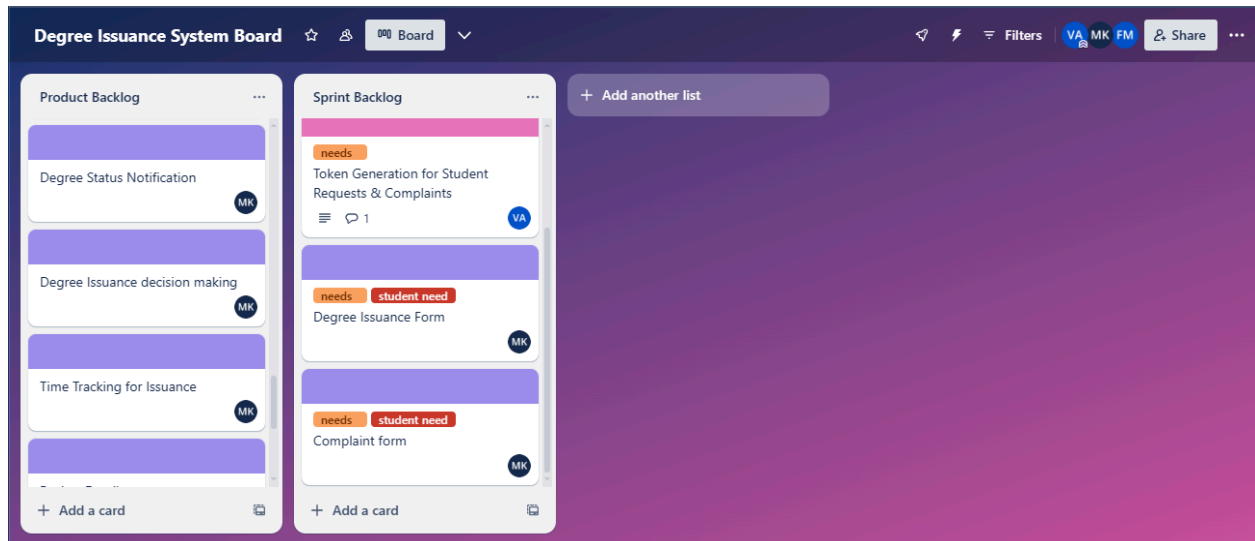
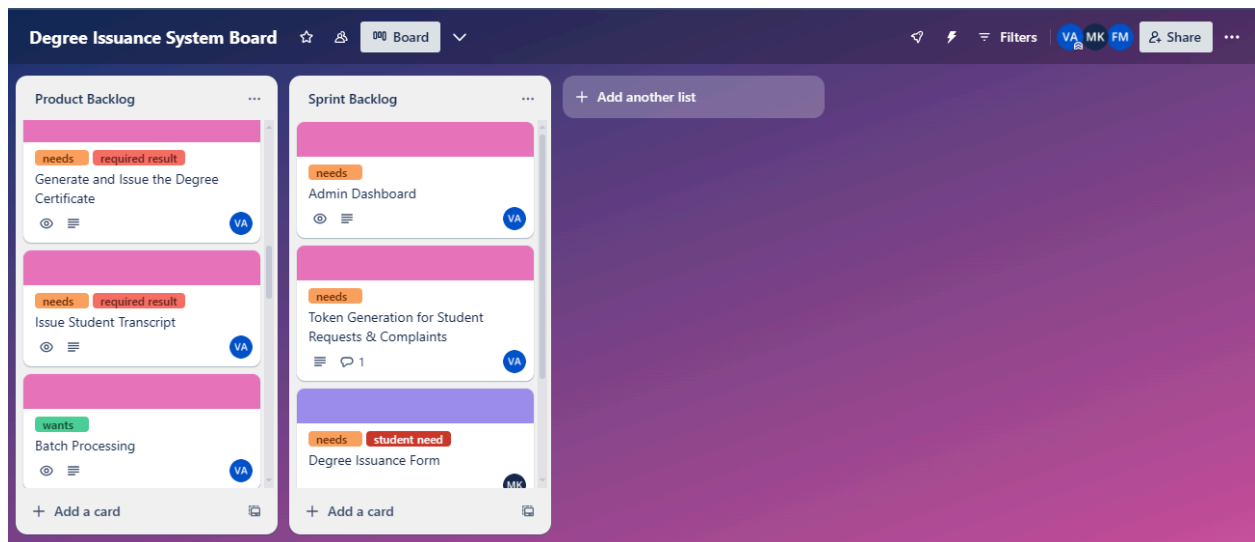
Role	Responsibilities	Assigned to
Product Owner	Defines the product vision, manages the product backlog, prioritizes the backlog items according to business value, and ensures that the development team understands the items in the product backlog to the level required.	Ms. Fizza Mumtaz
Scrum Master	Facilitates scrum practices and principles, and ensures that the Scrum framework is followed. The Scrum Master supports and helps everyone understand Scrum theory, practices, rules, and values.	Ms. Momina Khalid
Developer	Delivers the product increment. This includes planning, designing, coding, testing, and any other activities that are needed to create and maintain a releasable product.	Ms. Vaneeza Ahmad

Trello

Board Link:

<https://trello.com/invite/b/nBic6Zvw/ATTIa5aec8c45aa1c789f91030c9815caab210A4C5AE/degree-issuance-system-board>

Board Screenshots:



Github

The repository is currently private to avoid plagiarism mishaps, kindly provide the username of TA so we can add them as collaborator to the repo.

Github Repository Link:

[Vaneeza-7/Degree-Issuance-System \(github.com\)](https://github.com/Vaneeza-7/Degree-Issuance-System)

Github Repo Screenshot:

