

SOFTWARE ENGINEERING ITERATION-0

Title: One Stop Degree Issuance System

Roles:

- **Product Owner:** Tayyab Sohail (21I-2478)
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Problem Statement:

The problem of inefficient management and processing of degree issuance requests within the One Stop Services Centre affects the timely delivery of academic credentials to students, the impact of which is delayed graduation processes, frustrated students, and administrative bottlenecks.

A successful solution would be the development and implementation of an online web-based system specifically tailored to the degree issuance module within the One Stop Services Centre. This system should enable students to generate queries regarding their degree issuance concerns and facilitate seamless communication between students and One Stop Team members. By focusing on automating tracking systems, implementing notification mechanisms, and optimizing processing workflows, the solution aims to streamline the degree issuance process, ensuring prompt delivery of degrees and transcripts to students while minimizing administrative burden and enhancing overall student satisfaction.

Features to include:

1) Requesting degree issuance

- Degree issuance form
- Receiving Degree

2) Activity tracking

- View current status of request
- Audit logs for admins and director to track activity

3) Feedback

4) Automated Notification System

- Notify admin on arriving request
- Notify admin on pending request
- Form issuance notification to FYP Committee and Finance Department
- Notifying student on estimated time of completion
- Admin notified of any issues regarding request

5) Fee Handling

- Check for outstanding degree fee
- Check Degree Issuance fee.

6) Request Management

- View Pending Request
- View Processed Requests
- View Request Details
- Update process list
- Search for request

7) Issue Handling

- Complaint Form

8) Request Processing

- Admin Token Generation
- Decision Handling (Accept, Reject, Object)
- Ability to add comments for decision making

9) Transcript issuance

10) Analytics

- View all requests generated per day.
 - View processed requests per day.
 - Time taken by each department for processing
 - Total processing time per request
 - Data analysis (Graph, chart, tables)
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User Stories:

I. Student: -

Degree Issuance Form

- 1) As a student, I want to be able to submit a degree issuance form so that I can start the degree issuance process.

Acceptance Criteria:

Scenario: Student submits degree Issuance Form.

- Given access to the portal of the system
- When Student Degree completes and submits a degree issuance form
- Then the form is successfully submitted for processing

ALTERNATIVE SCENARIO

- Given access to the portal of the system
- When Student Degree completes and submits an incomplete degree issuance form
- The system prompts students to fill in all required fields before submission.

Request Tracking

- 2) As a student, I want to be able to track my request, so that I can know the progress of my request and how much more time it will take to complete.

Acceptance Criteria:

Scenario: Student tracks Degree Issuance Request.

- Given student has submitted degree issuance request
- When Student navigates to “Request Tracking” section
- Then the system displays the current status of the request regarding progress update and estimated completion time

Receive Degree

- 3) As a student, I want to be able to receive my degree so that I can use it for further studies or job interviews.

Acceptance Criteria:

Scenario: Student Receives Degree.

- Given student has completed academic requirements
- And cleared all outstanding fees.
- When University processes and approves degree issuance request
- Then the system dispatches the degree to the specific Student.

Complaint Form

- 4) As a student, I want to be able to submit a complaint form, so that the mistakes in my degree are resolved before my degree is issued.

Acceptance Criteria:

Scenario: Student Submits Degree Complaint Form.

- Given student has access to Complaint Form Portal
- When student submits the complaint form specifying the mistakes in their degree
- Then the system successfully forwards the complaint for review.

Give Feedback

- 5) As a student, I want to provide feedback about the OneStop Administrative Process, so that the system can be improved.

Acceptance Criteria:

Scenario: Student Provides feedback on Administrative Process of OneStop.

- Given the student has access to the designated platform.
- When the student provides detailed feedback of their experience with OneStop’s Administration.
- And submits the feedback form
- Then the system dispatches the feedback of the Student for further review.

II. FYP Department:

Receive Issuance Form Notification

- 1) As the FYP Department Head, I want to receive a notification about the student issuance form, so that I can accept or reject the request.

Acceptance Criteria:

Scenario: Notification for Student Issuance Form.

- Given Finance Department head has access to notification system
- When Student Degree submits a degree issuance form
- Then the Department head should make a decision whether to accept or reject the request.

Provide Decision

- 2) As the FYP Department Head, I want to be able to accept, reject or object to the students request so that this decision can be forwarded to the one stop admin.

Acceptance Criteria:

Scenario: Manage Student Requests.

- Given Finance Department head has access to the system
- When Department head reviews a degree issuance request
- Then the head should be able to:
 - 1 Accept the request
 - 2 Reject the request
 - 3 Object the student requestBefore forwarding it to One Stop Admin.

Track Time taken to Process Request

- 3) As the FYP Department Head, I want to be able to keep track of the time taken by the FYP committee to process requests so that it can be improved.

Acceptance Criteria:

Scenario: Tracking Process Time for FYP Committee Requests.

- Given Finance Department head has a system to monitor request processing time
- When the head tracks specific student's degree issuance request
- Then the system should record the time taken by the FYP committee to process the request.

III. Finance Department:

Check For Outstanding Fee

- 1) As the Finance Department Head, I want to check if all outstanding student fees have been paid, so that I can further process the degree issuance request.

Acceptance Criteria:

Scenario: Verify Outstanding Fee Payment of Students.

- Given admin has access to Finance system
- When Student Fee is checked
- Then the system should indicate fee status for every student.

Check For Degree Issuance Fee

- 2) As the Finance Department Head, I want to be able to check if the student has paid the degree issuance fee so that I can make a decision about the degree issuance request.

Acceptance Criteria:

Scenario: Verify Degree Issuance Fee Payment of Students.

- Given admin has access to Finance system
- When Student Degree Issuance Fee is checked
- Then the system should clearly indicate degree issuance status for every student.

Provide Decision

- 3) As the Finance Department Head, I want to be able to accept, reject or object to the students request so that this decision can be forwarded to the one stop admin.

Acceptance Criteria:

Scenario: Manage Student Requests by Finance Department

- Given Finance Department head has access to decision-making system interface
- When head reviews student request
- Then the head should be able to:
 - 1 Accept the request
 - 2 Reject the request
 - 3 Object the student request

Receive Issuance Form Notification

- 4) As the Finance Department Head, I want to receive a notification about the student issuance form, so that I can accept or reject the request.

Acceptance Criteria:

Scenario: Notification for Student Issuance Form.

- Given Finance Department head has notification system
- When Student Degree submits a degree issuance form
- Then the Department head should make a decision whether to accept or reject the request.

IV. Onestop Admin:

Receive Issuance Form Notification

- 1) As a Onestop admin, I want to get notifications of students applying for degree issuance so that I can attend to and manage incoming requests.

Acceptance Criteria:

Scenario: Notification for a new student degree issuance application.

- Given the Onestop admin has access to the notification system
- When a student applies for degree issuance
- Then Onestop admin receives a real time notification

Generate Token

- 2) As a Onestop admin, I want the system to be able to generate a unique token/ticket for each student request so that requests can be easily tracked and managed.

Acceptance Criteria:

Scenario: Generating new token/ticket for student request

- Given Onestop admin has access to the request management system
- When a student submits a request
- Then the system automatically generates a unique token/ticket for the request.

Estimated time period Notification

- 3) As a Onestop admin, I want the system to notify each student of the estimated time required for degree issuance so that students are informed of the expected timeframe.

Acceptance Criteria:

Scenario: System notifies student of estimated time for degree issuance

- Given a student has submitted a degree issuance application
- When the application is received and processed by the system
- Then the system calculates the estimated time required for degree issuance
- And the system sends a notification to the student
- And the notification includes the estimated time frame for degree issuance

View Requests

- 4) As a Onestop admin, I want to be able to view all requests and their current status so that I can respond to any queries from the student side.

Acceptance Criteria:

Scenario: Onestop admin views all requests and current status

- Given Onestop admin has access to the request management system
- When the admin needs to view all requests
- Then the system should display the list of requests
- And the list includes details of the request with its current status

Receive Notification from FYP Department

- 5) As a Onestop admin, I want to receive notifications from the FYP department regarding a student's degree issuance request so that I can inform the student so as to deal with any issue promptly.

Acceptance Criteria:

Scenario: Onestop Admin receives notification from FYP department

- Given the Onestop admin has access to the notification system
- When the FYP department processes the students request
- Then the system sends a notification to the Onestop admin
- And the notification includes details of the processed request
- And the admin can inform the student of the updated status of their request

Receive Notification from Finance Department

- 6) As a Onestop admin, I want to receive notifications from the Finance department regarding a student's degree issuance request so that I can inform the student so as to deal with any issue promptly.

Acceptance Criteria:

Scenario: Onestop Admin receives notification from Finance department

- Given the Onestop admin has access to the notification system
- When the Finance department processes the students request
- Then the system sends a notification to the Onestop admin
- And the notification includes details of the processed request
- And the admin can inform the student of the updated status of their request

Process Degree issuance request

- 7) As a Onestop admin, I want to be able to select and process a student's degree issuance request once all requirements have been met, so that degrees can be issued in a timely and accurate manner.

Acceptance Criteria:

Scenario: Select and Process Student request

- Given admin has access to the request management system
- When all requirements for students degree issuance are met
- Then the admin can select the request for processing
- And the admin can issue degree in a timely manner

Update Processed Request List

- 8) As a Onestop admin, I want the system to automatically update the processed request list along with the timestamps of completion so that I can have a clear record of when each degree was issued.

Acceptance Criteria:

Scenario: System automatically updates the processed request list

- Given a student's degree issuance request is being processed by the admin
- When the admin completes the processing
- Then the system automatically updates the processed request list
- And the update includes a timestamp indicating the completion time
- And the admin can access a clear record of when each degree was issued

Issue Transcript

- 9) As a Onestop admin, I want to be able to issue a transcript to the student containing the student's department, CGPA, all course grades, and duration of degree program and photograph so that students have comprehensive documentation of their academics.

Acceptance Criteria:

Scenario: Onestop admin issues transcript to the student

- Given a student sends a request
- When the request has been processed
- Then the admin can generate a transcript containing student's department, CGPA, all course grades, duration of degree program, and photograph

Receive Automated Reminders

- 10) As a Onestop admin, I want to receive automated reminders for pending requests, so that I can follow up and ensure timely resolution.

Acceptance Criteria:

Scenario: Onestop admin receives automated reminders for pending requests

- Given there are pending degree issuance requests
- When a request remains unresolved for a specified period
- Then the system sends an automated reminder to the Onestop admin
- And the reminder includes details of the pending request
- And the admin can follow up to ensure timely resolution

V. Director:

View Pending Requests

- 1) As a director, I want to view the number of pending requests generated each day, so that I can gauge the workload and allocate resources accordingly.

Acceptance Criteria:

Scenario: Director views the number of pending requests generated each day

- Given the director has access to the One Stop Services Centre system
- When the director accesses the dashboard or analytics section

- Then the system displays the total number of pending requests generated for each day
- And the director can view this information for the current day or select specific date ranges
- And the data is presented in a clear and understandable format, such as a graph or table

View Processed Requests

- 2) As a director, I want to view all processed requests generated per day, so that I can track operational efficiency and performance trends.

Acceptance Criteria:

Scenario: Director views the number of processed requests generated each day

- Given the director has access to the One Stop Services Centre system
- When the director accesses the analytics/reports section
- Then the system displays the total number of processed requests for each day
- And the director can view this information for the current day or select specific date ranges
- And the data is presented in a clear and understandable format, such as a graph or table

View time take by each Department

- 3) As a director, I want to view the time taken by each department to process requests, providing insight into departmental efficiency and potential areas for improvement.

Acceptance Criteria:

Scenario: Director views the time taken by each department to process requests

- Given the director has access to the One Stop Services Centre system
- When the director accesses the departmental performance section
- Then the system displays the average processing time for each department
- And the director can view this information for specific time periods
- And the data is presented in a clear and understandable format, such as a graph/chart or table

Track Request Activity

- 4) As a director, I want to be able to track the activity of each request, allowing me to ensure that requests are progressing smoothly through the workflow.

Acceptance Criteria:

Scenario: Director tracks the activity of each request

- Given the director has access to the One Stop Services Centre system
- When the director views the request details or status
- Then the system displays a log of activities related to the request
- And the log includes timestamps and descriptions of each activity, such as submission, processing, and completion
- And the director can track the progress of requests and ensure they are progressing smoothly through the workflow

GITHUB Repo:

The screenshot displays the GitHub interface for the repository 'Degree-Issuance-System-'. At the top, the repository name and owner 'TayyabSohail' are visible. Below this, the repository is identified as 'Public'. The main content area shows a commit history with one entry: 'Initial commit' by 'TayyabSohail' 20 hours ago. The commit details show a file named 'README.md' with the content: 'Degree-Issuance-System- One Stop Degree Issuance System Software Engineering Project using C#'. The right sidebar provides repository statistics: 0 stars, 1 watching, and 0 forks. There are also sections for 'Releases' and 'Packages'.

GITHUB LINK : <https://github.com/TayyabSohail/Degree-Issuance-System->

TRELLO:

