



Iteration 0

Software Engineering

Submitted To:

Javaria Imtiaz

Submitted By:

Ahmad Farhan - i211366

Hasan Kamal - i210694

Fatima Mazhar - i210504

Project Title: Onestop Degree Issuance Centre

Problem Statement

The Problem of:	manual and paper-based degree issuance
Effects:	the students and administration of FAST Islamabad
The impact of which is:	hindrances in timely graduation of students, inaccuracies in academic records and, operational inefficiencies
A successful solution would be:	a comprehensive system that facilitates the processing and issuance of degrees for undergraduate and graduate programs. The students will be able to submit degree issuance queries and complaints while remaining updated on the progress of their requests. Admins would then process these queries and provide feedback from relevant departments along with any approved documents. These documents include degrees and transcripts.

List of Envisioned Features:

Roles and Tasks:

1. Students:

- Submit Degree Issuance Form
 - Preview Forms before Submission
 - Retain Copy of Submitted Forms
- Submit Complaint Form:
 - Regarding errors in academic documents.
- Track Activity:
 - Status of requests (pending, processing, delivered).
 - Receive Notifications of Updates in status
- Receive Degree:
 - Provide Digital Copy
 - Notify Student to receive Physical Copy

2. FYP Department:

- Student Notification for Degree Issuance:
 - Notify students of updates in the processing of their forms
- Provide Decision:
 - Allow FYP Department to:

- Accept
 - Reject
 - Raise Objections
- Provide Detailed Comments
- Track Processing Time:
 - Record Processing Start Time
 - Record Processing End Time
 - Summarize time taken by the committee to process each request.

3. Finance Department:

- Student Notification for Degree Issuance
 - Notify students of updates in the processing of their forms
- Verify All Payments Made
 - All Outstanding Fees
 - Degree Issuance Fees
- Provide Decision
 - Allow Finance Department to:
 - Accept
 - Reject
 - Raise Objections
 - Provide Detailed Comments

4. One Stop Admin:

- Receive Notifications of Degree Issuance Requests
- Generate Tokens/Tickets for each Request:
 - Unique
 - With Estimated Processing Timeframes
- View Status of All Requests
 - Pending
 - Processed
 - New requests
- Manage Objections:
 - Inform Students of Objections from
 - FYP Department
 - Finance Department
 - Provide Guidance for Next Steps
- Issue Degrees
 - Update the processed request list with timestamps.
- Issue Transcripts:
 - Include Information such as:
 - Department
 - CGPA
 - Course grades

- Duration
- Photographs

5. Director:

- View Daily Requests
- Monitor Pending Requests
- Monitor Processed Requests
- Track Department-wise Processing Time
- Activity Tracking
 - Visibility of status of each request (pending, processing, or delivered)

User Stories

Note: Importance and estimates are numeric values (1-5) with 1 being lowest and 5 being highest

Total User Stories: 28

Story ID: S-01

Story Title: Degree Issuance Request Submission

User Story:

As a: student
 I want: to submit a degree issuance form,
 So that: I can initiate an efficient process of obtaining my degree.

Importance:

5

Estimate:

5

Acceptance Criteria:

1. Given that: I want to initiate a degree issuance request
 When: I navigate to the degree issuance page
 Then: I should be able to fill out and submit a form
2. Given that I am on the degree issuance section
 When: I fill out the form with personal information program details and any relevant documentations,
 Then: I should be able to submit the form

Type:

- ☐ Search
- ☒ Workflow
- ☐ Manage Data
- ☐ Payment
- ☐ Report/View

Story ID: S-02

Story Title: Complaint Form Submission

User Story:

As a: student
I want: to submit complaint forms,
So that: the university can look at and resolve any
discrepancies or errors in my issued degree promptly.

Importance:

4

Estimate:

4

Acceptance Criteria:

1. Given that: I have received an academic document
When: I identify any discrepancies or errors
Then: I should be able to submit a complaint form
to report the issue

2. Given that: I submit a complaint form
When: the university receives my complaint
Then: they should acknowledge and resolve my query

Type:

- ☐ Search
- ☒ Workflow
- ☐ Manage Data
- ☐ Payment
- ☐ Report/View

Story ID: S-03

Story Title: Query Progress Tracking

User Story:

As a: student
I want: to track the real-time progress of my queries,
So that: I can monitor the progress and know the expected
timeline for receiving my degree.

Importance:

3

Estimate:

3

Acceptance Criteria:

1. Given that: I have submitted the degree issuance form
When: I review the confirmation message
Then: it should indicate that my request has been
received and is being processed.

2. Given that: I submit any a degree issuance request form
When: the university begins processing my request
Then: I should see the status of my query in real-time.

Type:

- ☐ Search
- ☐ Workflow
- ☐ Manage Data
- ☐ Payment
- ☒ Report/View

Story ID: S-04

Story Title: Receive Digital Documents

User Story:

As a: student
I want: to receive digital copies of my degree and transcripts,
So that: I can use them as needed.

Importance:

5

Estimate:

2

Acceptance Criteria:

Given that: I have submitted a degree issuance request,
When: I meet all the requirements and the issuance process
has been completed
Then: I should be issued a digital copy of my transcript and
degree

Type:

- ☐ Search
- ☒ Workflow
- ☐ Manage Data
- ☐ Payment
- ☐ Report/View

Story ID: S-05

Story Title: Notification for Degree Collection

User Story:

As a: student
I want: to be notified when my degree is ready for collection,
So that: I can arrange to receive the physical certificate from
the university.

Importance:

4

Estimate:

2

Acceptance Criteria:

Given that: I have submitted a degree issuance request,
When: the university has processed my issuance request
successfully
Then: I should be notified that my degree is ready for collection

Type:

- ☐ Search
- ☐ Workflow
- ☐ Manage Data
- ☐ Payment
- ☒ Report/View

Story ID: S-06**Story Title: Flex Credentials Sign-in**

User Story:

As a: student
I want: to sign into the system with my flex credentials,
So that: I do not have to remember the credentials for yet another university system.

Importance:

3

Estimate:

1

Acceptance Criteria:

Given that: I am a student at the university,
When: I want to log into the system
Then: I should not have to sign up explicitly and should be able to log in using my flex credentials.

Type:

- ☐ Search
- ☐ Workflow
- ☒ Manage Data
- ☐ Payment
- ☐ Report/View

Story ID: S-07**Story Title: Form Previews**

User Story:

As a: student
I want: to see a preview of my filled in forms before submission,
So that: I can review and validate the information I entered.

Importance:

2

Estimate:

3

Acceptance Criteria:

1. Given that: I have filled out the degree issuance form
When: I proceed to submit the form
Then: I should be presented with a preview of the filled form
2. Given that: I am viewing the preview of the form
When: I identify any discrepancies or errors
Then: I should be able to go back and correct the information

Type:

- ☐ Search
- ☐ Workflow
- ☐ Manage Data
- ☐ Payment
- ☒ Report/View

Story ID: S-08**Story Title: Non-Editable Preview Forms**

User Story:

As a: student
I want: the preview of forms to not be editable,
So that: I do not make accidental changes right
before submission.

Importance:

2

Estimate:

2

Acceptance Criteria:

Given that: I have filled out the degree issuance form,
When: I preview the form before submission,
Then: I should not be able to make accidental changes.

Type:

- ☐ Search
- ☐ Workflow
- ☒ Manage Data
- ☐ Payment
- ☐ Report/View

Story ID: S-09**Story Title: Submitted Forms Record**

User Story:

As a: student
I want: to retain the preview of the forms I submitted,
So that: I can know what information I submitted.

Importance:

1

Estimate:

1

Acceptance Criteria:

Given that: I have submitted the degree issuance form,
When: I navigate back to the degree issuance section,
Then: I should see a record of my submitted requests
for future reference.

Type:

- ☐ Search
- ☐ Workflow
- ☐ Manage Data
- ☐ Payment
- ☒ Report/View

Story ID: S-10

Story Title: Status Updates Notification

User Story:

As a: student
I want: to receive notifications or updates via SMS or email
whenever there is any change in the status of my queries,
So that: I can stay updated without having to check the system
constantly.

Importance:

3

Estimate:

3

Acceptance Criteria:

Given that: I submit any degree issuance request form,
When: the university is processing my request,
Then: I should receive updates about the progress of my query.

Type:

- ☐ Search
- ☐ Workflow
- ☐ Manage Data
- ☐ Payment
- ☒ Report/View

Story ID: A-01

Story Title: Degree Issuance Request Notification

User Story:

As a: One stop Admin
I want: to be notified when a student submits a degree
issuance request,
So that: I can promptly begin processing their queries.

Importance:

4

Estimate:

3

Acceptance Criteria:

Given that: I am logged into the system as an admin,
When: a student submits a degree issuance request,
Then: I should be given notifications.

Type:

- ☐ Search
- ☐ Workflow
- ☐ Manage Data
- ☐ Payment
- ☒ Report/View

Story ID: A-02

Story Title: Token Generation with Time Estimates

User Story:

As a: One stop Admin
I want: to generate unique tokens with estimated timeframes
for every student request,
So that: they can be processed on a first come first served
basis.

Importance:

5

Estimate:

5

Acceptance Criteria:

1. Given that: a student submits a request
When: the request is received
Then: a unique token should be generated
and assigned to the request.
2. Given that: a student submits a request
When: the token has been generated
Then: the student should be notified with an
estimated timeframe of processing the request.
3. Given that: tokens are generated for student requests
When: multiple requests are received
Then: the tokens should be assigned on a
first come first served basis.

Type:

- ☐ Search
- ☐ Workflow
- ☒ Manage Data
- ☐ Payment
- ☐ Report/View

Story ID: A-03

Story Title: Degree Issuance Upon Approval

User Story:

As a: One stop Admin
I want: to issue degrees to the students upon approvals from all
the relevant authorities,
So that: the students can be informed of the completion of
their requests and receive their degrees.

Importance:

5

Estimate:

4

Acceptance Criteria:

Given that: a degree issuance process is initiated,
When: the request has been approved by all the relevant
authorities
Then: the degree should be issued to the student.

Type:

- ☐ Search
- ☒ Workflow
- ☐ Manage Data
- ☐ Payment
- ☐ Report/View

Story ID: A-04

Story Title: Request Management

User Story:

As a: One stop Admin
I want: to view the status of all pending, processed,
and new requests
So that: I can manage and prioritize them effectively.

Importance:

4

Estimate:

3

Acceptance Criteria:

1. Given that: I am logged into the system,
When: I navigate to request management section
Then: I should see a list of all pending, processed and new
requests along with their relevant details like student names
and dates.

2. Given that: I am viewing the list of students' requests,
When: I need to filter or sort the list
Then: I should be able to sort by status or submission date

Type:

- ☐ Search
- ☐ Workflow
- ☐ Manage Data
- ☐ Payment
- ☒ Report/View

Story ID: A-05

Story Title: Transcript Generation

User Story:

As a: One stop Admin
I want: the transcripts to automatically be generated for
students when their degree issuance request is approved,
So that: the students can receive their academic
documentation.

Importance:

5

Estimate:

3

Acceptance Criteria:

1. Given that: the degree issuance process is complete,
When: the student is issued their degree,
Then: their transcript should also be issued.

2. Given that: a student requests their transcript,
When: the transcript is generated and provided to the student,
Then: the transcript should include details such as
department, CGPA, course grades, duration and photo.

Type:

- ☐ Search
- ☒ Workflow
- ☐ Manage Data
- ☐ Payment
- ☐ Report/View

Story ID: A-06

Story Title: Handling Request Objections

User Story:

As a: One stop Admin
I want: to know about any objections raised by the finance or FYP departments regarding a student's degree issuance,
So that: I can inform the student of the issue and guide them about the next steps.

Importance:

5

Estimate:

5

Acceptance Criteria:

1. Given that a degree issuance request is under review, when objections are raised by the FYP or finance departments then I should be informed about the objections
2. Given that objections are raised against a student's request, when I have reviewed the objections then I should be able to notify the student
3. Given that objections are raised against a student's request, when I am notifying the student then I should be able to include the details of reason for objection and guide them about the next step.

Type:

- ☐ Search
- ☒ Workflow
- ☐ Manage Data
- ☐ Payment
- ☐ Report/View

Story ID: A-07

Story Title: Automatic List Updates

User Story:

As a: One stop Admin
I want: the requests list to automatically be updated when a degree is issued,
So that: it is clear which requests have been processed.

Importance:

4

Estimate:

3

Acceptance Criteria:

Given that: a degree has been issued to the student,
When: the degree issuance process is complete
Then: the requests list should automatically be updated.

Type:

- ☐ Search
- ☐ Workflow
- ☒ Manage Data
- ☐ Payment
- ☐ Report/View

Story ID: D-01

Story Title: Filter Requests by Day

User Story:

As a: Director
I want: to view a list of all the requests generated on a specific day,
So that: I have a comprehensive overview of daily activities.

Importance:

3

Estimate:

3

Acceptance Criteria:

1. Given that: I am viewing the list of student requests,
When: I need to view all the requests received on a specific day
Then: I should be able to filter the requests by date.

2. Given that: I am logged in as the director,
When: I filter the requests by current date
Then: I should see a list of all requests generated on a specific day.

Type:

- ☒ Search
- ☐ Workflow
- ☐ Manage Data
- ☐ Payment
- ☐ Report/View

Story ID: D-02

Story Title: View Pending Requests

User Story:

As a: Director
I want: to access a list of all pending requests,
So that: I can monitor the remaining workload and identify bottlenecks in processing.

Importance:

3

Estimate:

2

Acceptance Criteria:

Given that: I am viewing the list of student requests,
When: I filter the list to view all pending requests
Then: I should see all pending requests with details list student name and submission date.

Type:

- ☐ Search
- ☐ Workflow
- ☐ Manage Data
- ☐ Payment
- ☒ Report/View

Story ID: D-03**Story Title: View Processed Requests**

User Story:

As a: Director
I want: to view all the processed requests,
So that: I can track the efficiency of the process.

Importance:

2

Estimate:

2

Acceptance Criteria:

Given that: I am viewing the list of student requests,
When: I filter the list to view all processed requests
Then: I should see all processed requests with details
list student name and finalization date.

Type:

- ☐ Search
- ☐ Workflow
- ☐ Manage Data
- ☐ Payment
- ☒ Report/View

Story ID: D-04**Story Title: View Processing Metrics**

User Story:

As a: Director
I want: to view processing details such as the time taken by
each department to process a request,
So that: I can identify bottlenecks and optimize the processes
accordingly.

Importance:

4

Estimate:

4

Acceptance Criteria:

Given that: I am logged in as the director,
When: I view the request processing metrics
Then: I should see the time taken by each department to
process the request

Type:

- ☐ Search
- ☐ Workflow
- ☐ Manage Data
- ☐ Payment
- ☒ Report/View

Story ID: D-05

Story Title: Active Progress Tracking

User Story:

As a: Director
I want: to track the real-time progress of requests,
So that: I can stay informed about the progress and status of every request.

Importance:

3

Estimate:

3

Acceptance Criteria:

Given that: students submit any request form (degree issuance, complaint)
When: the university begins processing the request
Then: I should be able to view the real-time activity log of each request.

Type:

- ☐ Search
- ☐ Workflow
- ☐ Manage Data
- ☐ Payment
- ☒ Report/View

Story ID: Y-01

Story Title: Request Processing Timestamps

User Story:

As a: FYP Department Staff
I want: each request to be time stamped when the processing begins and ends,
So that: accurate record of processing durations is maintained.

Importance:

3

Estimate:

4

Acceptance Criteria:

1. Given that: a student submits a degree issuance request,
When: the request is received, and I begin processing it
Then: the request should automatically be time stamped with the date and time indicating the start of processing.
2. Given that: a student's request is under processing,
When: I complete the processing of the degree issuance request
Then: the request should automatically be time stamped with the date and time indicating the completion of processing.

Type:

- ☐ Search
- ☐ Workflow
- ☒ Manage Data
- ☐ Payment
- ☐ Report/View

Story ID: Y-02

Story Title: Degree Issuance Request Notification

User Story:

As a: FYP Department Staff
I want: to receive notifications when a student submits a degree issuance request,
So that: I can promptly begin processing their queries.

Importance:

3

Estimate:

3

Acceptance Criteria:

Given that: I am logged into the system,
When: a student submits a degree issuance request
Then: I should be given timely notifications

Type:

- ☐ Search
- ☐ Workflow
- ☐ Manage Data
- ☐ Payment
- ☒ Report/View

Story ID: Y-03

Story Title: Requests Evaluation and Decision

User Story:

As a: FYP Department Staff
I want: to accept, reject, or raise objections to a degree issuance request,
So that: I can effectively process requests and inform the student of the decision.

Importance:

5

Estimate:

4

Acceptance Criteria:

1. Given that: a degree issuance request is under review,
When: all required criteria are met by the student
Then: I should be able to approve the issuance request
2. Given that: a degree issuance request is under review,
When: I have any objections against the request
Then: I should be able to provide detailed comments with guidance for next steps

Type:

- ☐ Search
- ☒ Workflow
- ☐ Manage Data
- ☐ Payment
- ☐ Report/View

Story ID: F-01**Story Title: Verification of Outstanding Fees**

User Story:

As a: Finance Department Staff
I want: to verify that all outstanding fees of a student including the issuance fees are paid,
So that: I can ensure that an issuance request meets the financial criteria for approval.

Importance:

5

Estimate:

5

Acceptance Criteria:

Given that: a degree issuance request is under review,
When: all financial criteria are met by the student
Then: I should be able to approve the issuance request

Type:

- ☐ Search
- ☐ Workflow
- ☐ Manage Data
- ☒ Payment
- ☐ Report/View

Story ID: F-02**Story Title: Requests Evaluation and Decision**

User Story:

As a: Finance Department Staff
I want: to accept, reject, or raise objections to a degree issuance request,
So that: I can effectively process requests and inform the student of the decision.

Importance:

5

Estimate:

4

Acceptance Criteria:

1. Given that: a degree issuance request is under review,
When: all required financial criteria are met by the student
Then: I should be able to approve the issuance request
2. Given that: a degree issuance request is under review,
When: I have any objections against the request
Then: I should be able to provide detailed comments with guidance for next steps

Type:

- ☐ Search
- ☒ Workflow
- ☐ Manage Data
- ☐ Payment
- ☐ Report/View

Story ID: F-03

Story Title: Degree Issuance Request Notification

User Story:

As a: FYP Department Staff
I want: to receive notifications when a student submits a degree issuance request,
So that: I can promptly begin processing their queries.

Importance:

3

Estimate:

3

Acceptance Criteria:

Given that: I am logged into the system,
When: a student submits a degree issuance request
Then: I should be given timely notifications

Type:

- ☐ Search
- ☐ Workflow
- ☐ Manage Data
- ☐ Payment
- ☒ Report/View

Team Member Roles:

Ahmad Farhan: Product Owner

Responsible for defining and prioritizing the product backlog, representing the customer's needs, and ensuring the team delivers value by focusing on high-priority features.

Hasan Kamal: Scrum Master

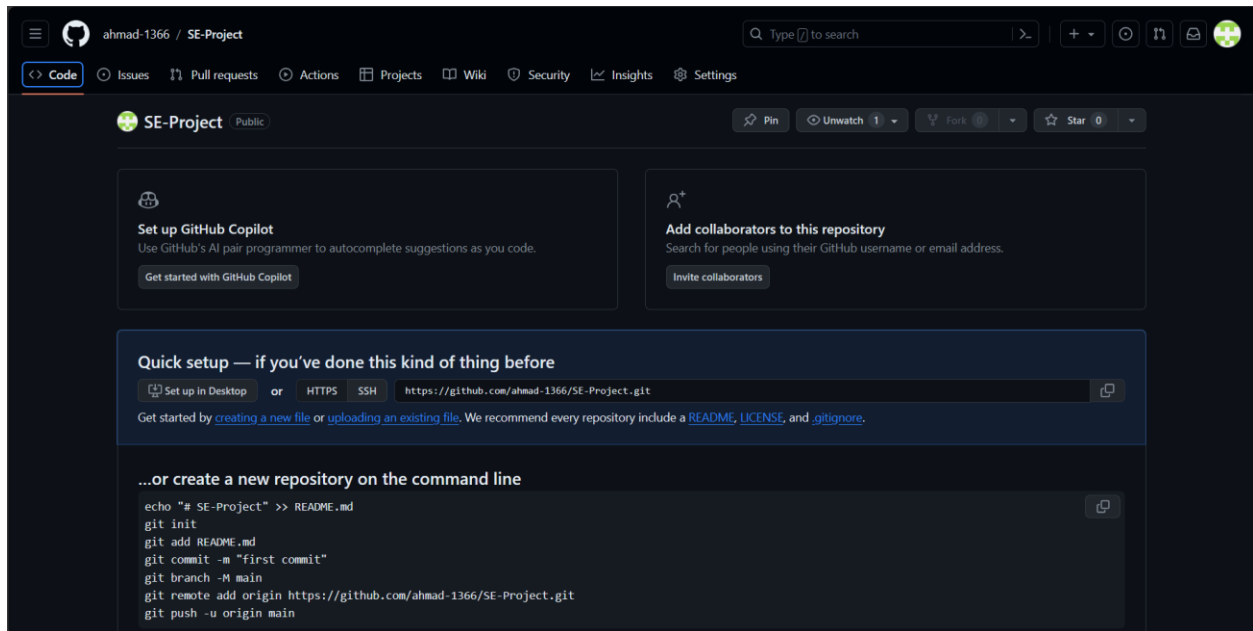
Facilitates the Scrum process, removes impediments that hinder the team's progress, ensures adherence to Scrum principles, and helps the team improve its efficiency and effectiveness.

Fatima Mazhar: Dev Team

Self-organizes to deliver increments of working software during each sprint, collaborates with the Product Owner to understand requirements, and continuously improves its processes to deliver high-quality products.

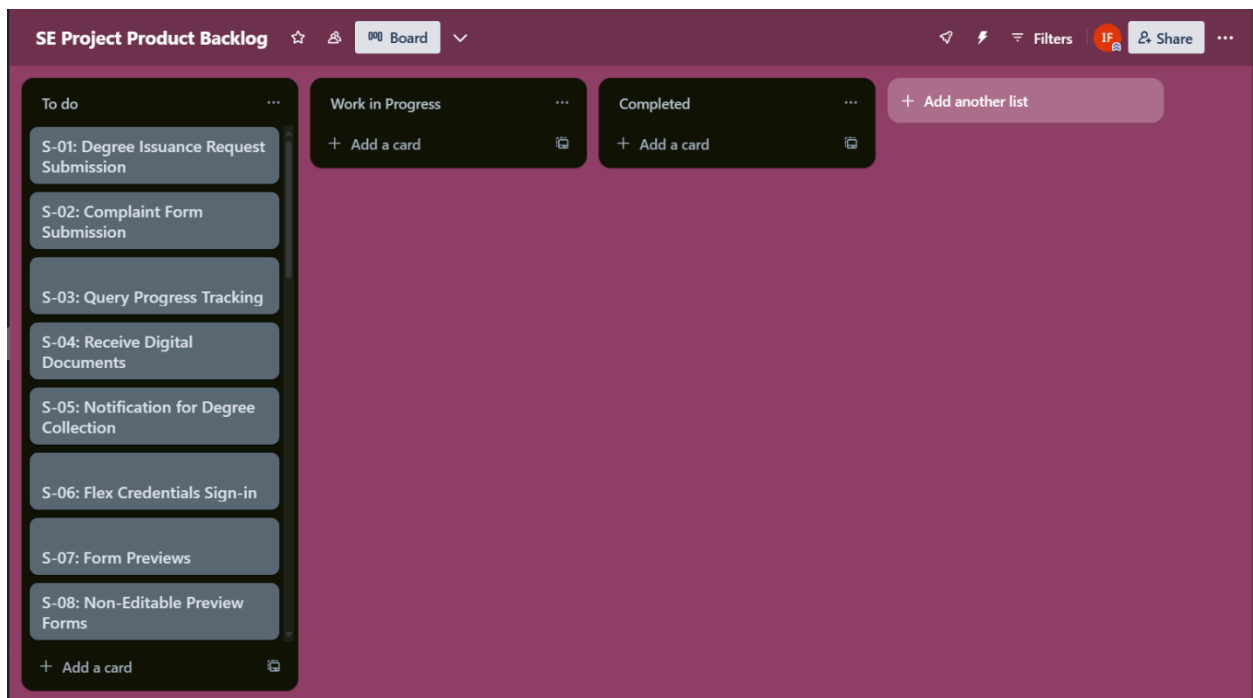
GitHub:

[ahmad-1366/SE-Project \(github.com\)](https://github.com/ahmad-1366/SE-Project)



Trello:

Product Backlog



Sprint Backlog

SE Project Sprint-1 Backlog

Board

Filters

Share

To do

S-01: Degree Issuance Request Submission

S-06: Flex Credentials Sign-in

S-07: Form Previews

S-08: Non-Editable Preview Forms

A-02: Token Generation with Time Estimates

A-03: Degree Issuance Upon Approval

A-07: Automatic List Updates

D-02: View Pending Requests

Add a card

Work in Progress

Add a card

Completed

Add a card

Add another list