

PROG6212 – Part 2

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1.

Lecturers can capture claims through the *Create Claim* form. The system auto-calculates $\text{TotalAmount} = \text{HoursWorked} \times \text{HourlyRate}$ and sets the initial status to *Pending*. Claims are listed under “My Claims” with their status badges (Microsoft, 2024).

Screenshot Evidence:

CMCS Prototype

Lecturer Coordinator Manager

New Claim

Total amount is calculated automatically when you save.

Lecturer: A. Naidoo

Month: 9

Year: 2025

Hours Worked: 0,00

Hourly Rate: 0,00

Save Cancel

CMCS — Prototype (Part 2: functional features)

- Screenshot of Lecturer → + New Claim form (before saving)

CMCS Prototype

Lecturer Coordinator Manager

Claims

Claim created.

+ New Claim

Lecturer	Month	Hours	Total	Status	
A. Naidoo	9/2025	0,00	R0,00	Pending	Details Edit
A. Naidoo	9/2025	0,00	R0,00	Approved	Details Edit
A. Naidoo	9/2025	0,00	R0,00	Pending	Details Edit

- Screenshot of Lecturer → My Claims list (after saving)

2.

Each claim has a *Details* page showing lecturer, hours, rate, and current status. Supporting documents can be uploaded. The upload process includes validations:

- Allowed formats: PDF, DOCX, XLSX, JPG, JPEG, PNG
- Max file size: 5 MB
- Error messages shown for invalid uploads

Validation and error handling follow ASP.NET Core MVC best practices (Microsoft, 2024). Bootstrap components were used for styling the upload form and alerts (Bootstrap, 2025).

Screenshot Evidence:

The screenshot shows the 'Claim Details' page in the CMCS Prototype. The page has a dark header with 'CMCS Prototype' on the left and 'Lecturer Coordinator Manager' on the right. The main content area is titled 'Claim Details' and contains a table with the following data:

Lecturer	A. Naidoo
Month / Year	9/2025
Hours	0,00
Hourly Rate	R0,00
Total	R0,00
Status	Pending

Below the table is a section titled 'Supporting Documents' with the text 'No documents uploaded yet.' Below this is a file upload form with a 'Choose File' button, a text input showing 'No file chosen', and an 'Upload' button. Below the form is a message: 'Allowed: PDF, DOCX, XLSX, JPG, JPEG, PNG. Max 5 MB.' At the bottom of the form are 'Back' and 'Edit' buttons.

- Screenshot of Claim Details page with no documents

The screenshot shows the 'Claim Details' page in the CMCS Prototype after a successful file upload. The page has a dark header with 'CMCS Prototype' on the left and 'Lecturer Coordinator Manager' on the right. The main content area is titled 'Claim Details' and contains a green alert message: 'File uploaded successfully.' Below this is a table with the following data:

Lecturer	A. Naidoo
Month / Year	9/2025
Hours	0,00
Hourly Rate	R0,00
Total	R0,00
Status	Pending

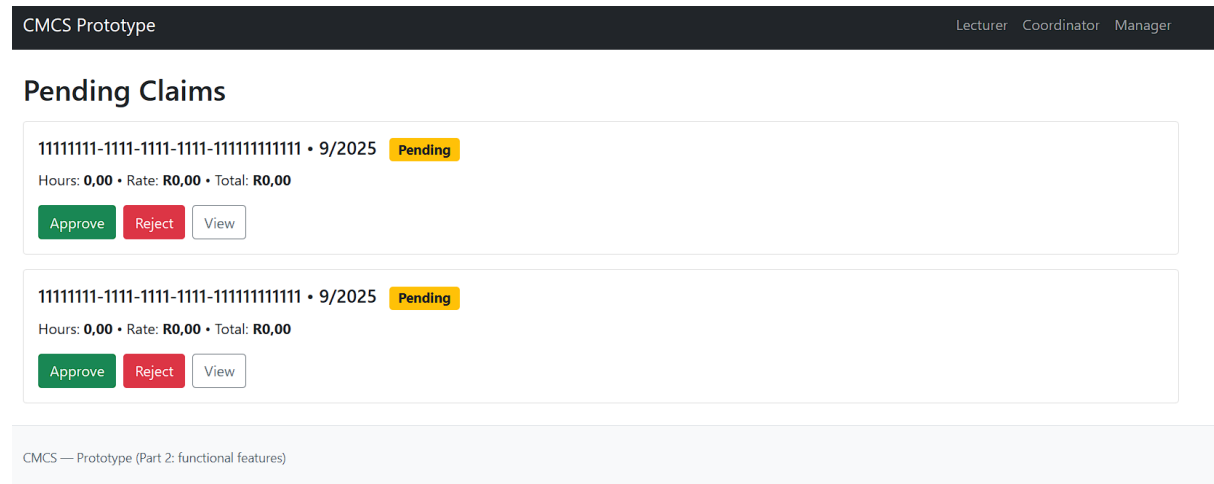
Below the table is a section titled 'Supporting Documents' with a list of documents: 'Test working.png (2025/09/24)'. Below the list is a file upload form with a 'Choose File' button, a text input showing 'No file chosen', and an 'Upload' button. Below the form is a message: 'Allowed: PDF, DOCX, XLSX, JPG, JPEG, PNG. Max 5 MB.' At the bottom of the form are 'Back' and 'Edit' buttons.

- Screenshot of successful file upload (green message + file listed)

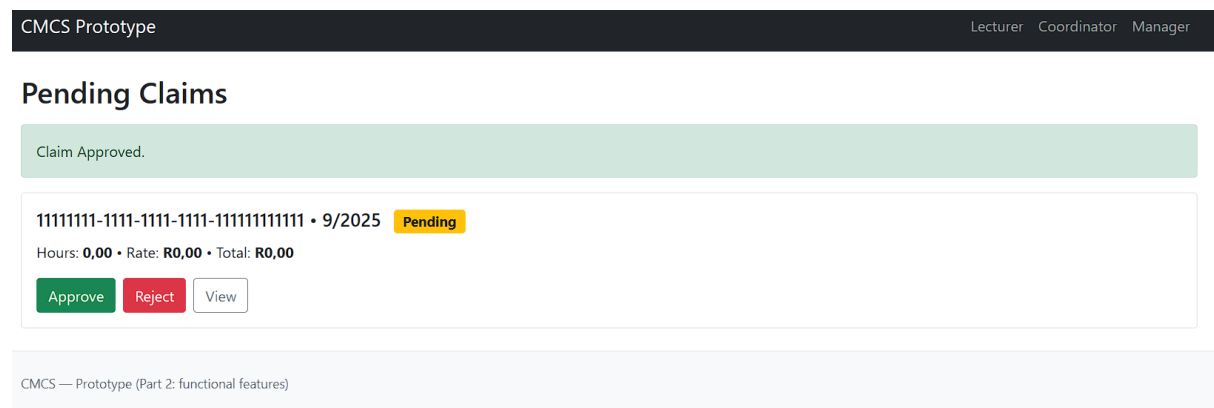
3.

The Coordinator dashboard lists all *Pending* claims. Each card provides claim details and action buttons: *Approve* or *Reject*. On decision, the claim's status updates, and an approval record is stored (Microsoft, 2024).

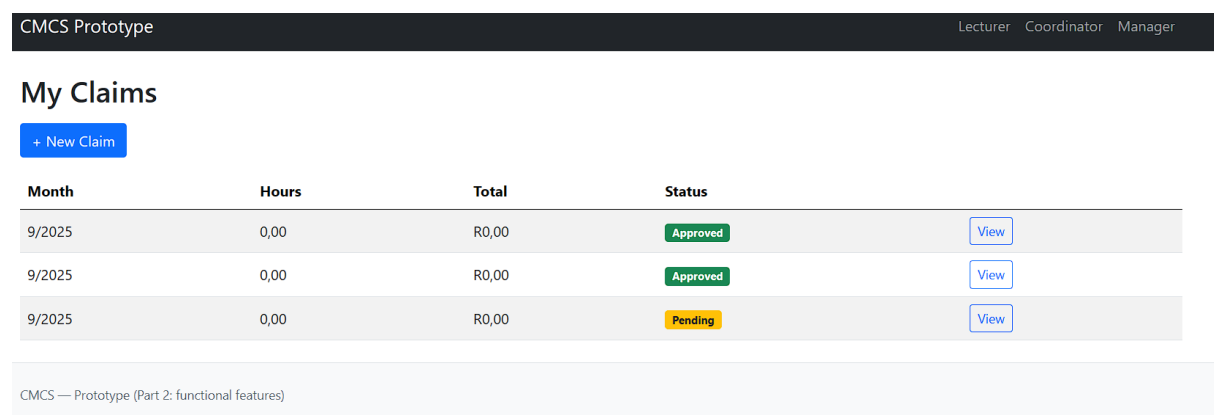
Screenshot Evidence:



- Screenshot of Coordinator dashboard with pending claims



- Screenshot of after Approve/Reject action, success message

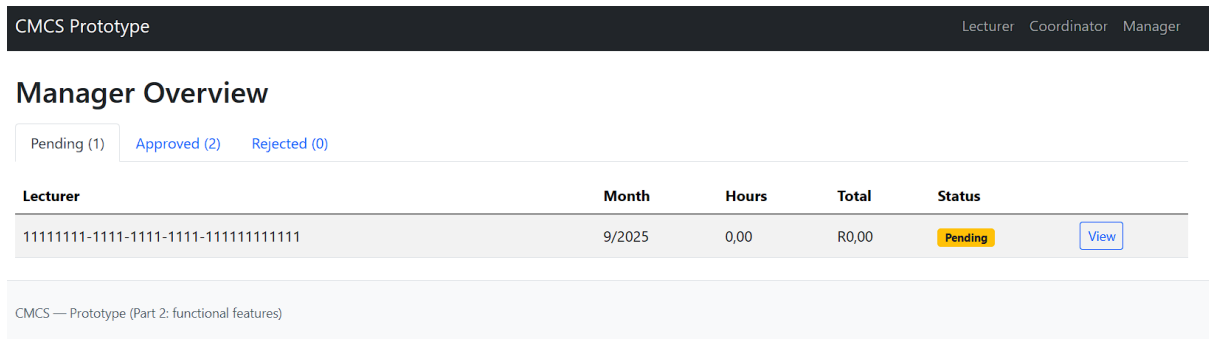


- Screenshot of Lecturer claim now showing Approved/Rejected

4.

The Manager view groups claims into three tabs: *Pending*, *Approved*, and *Rejected*. This allows an overview of claim statuses and easy navigation between categories (Bootstrap, 2025).

Screenshot Evidence:



CMCS Prototype

Lecturer Coordinator Manager

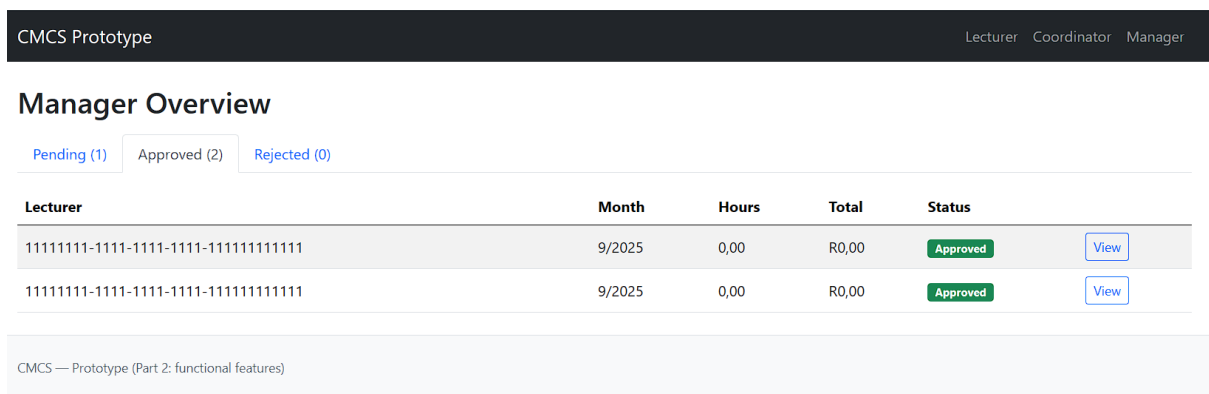
Manager Overview

Pending (1) Approved (2) Rejected (0)

Lecturer	Month	Hours	Total	Status	
11111111-1111-1111-1111-111111111111	9/2025	0,00	R0,00	Pending	View

CMCS — Prototype (Part 2: functional features)

- Screenshot of Manager overview page showing all three tabs



CMCS Prototype

Lecturer Coordinator Manager

Manager Overview

Pending (1) Approved (2) Rejected (0)

Lecturer	Month	Hours	Total	Status	
11111111-1111-1111-1111-111111111111	9/2025	0,00	R0,00	Approved	View
11111111-1111-1111-1111-111111111111	9/2025	0,00	R0,00	Approved	View

CMCS — Prototype (Part 2: functional features)

- Screenshot of one tab open with claim list visible

5.

The system implements input validation and runtime error handling to ensure reliability:

- Upload validation (file type and size)
- User-friendly messages displayed via TempData["Err"] or TempData["Msg"]
- Graceful fallback on invalid input

These practices are consistent with recommended patterns in ASP.NET Core (Microsoft, 2024).

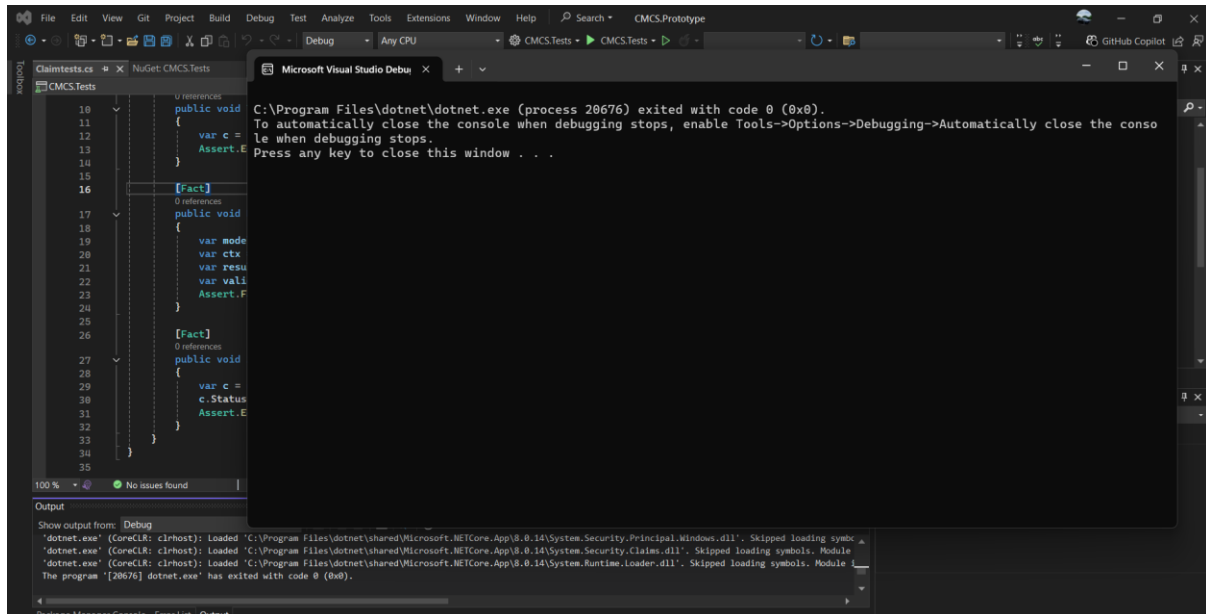
6.

Unit tests using xUnit were added to verify core functionality:

- Business rule calculation — total claim amount.
- Validation — negative hours not allowed.
- Status change — Pending → Approved.

This aligns with recommended approaches to testing using xUnit (xUnit.net, 2025). EF Core validation was also referenced to ensure constraints are respected (Microsoft, 2024).

Screenshot Evidence:



- Insert screenshot of Visual Studio Test Explorer showing 3/3 tests passed

References

Bootstrap, 2025. *Get started with Bootstrap*. [Online]

Available at: <https://getbootstrap.com/docs/5.3/getting-started/introduction/>

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