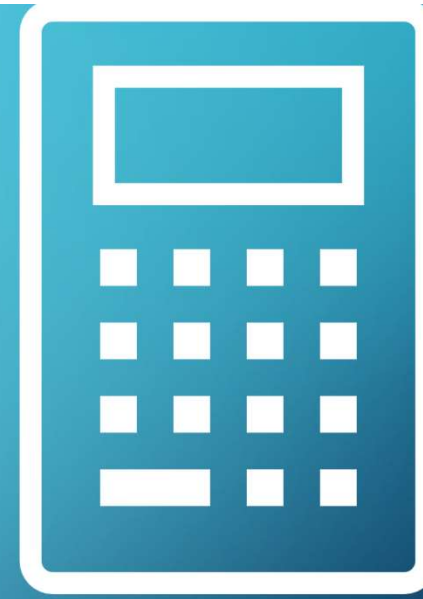
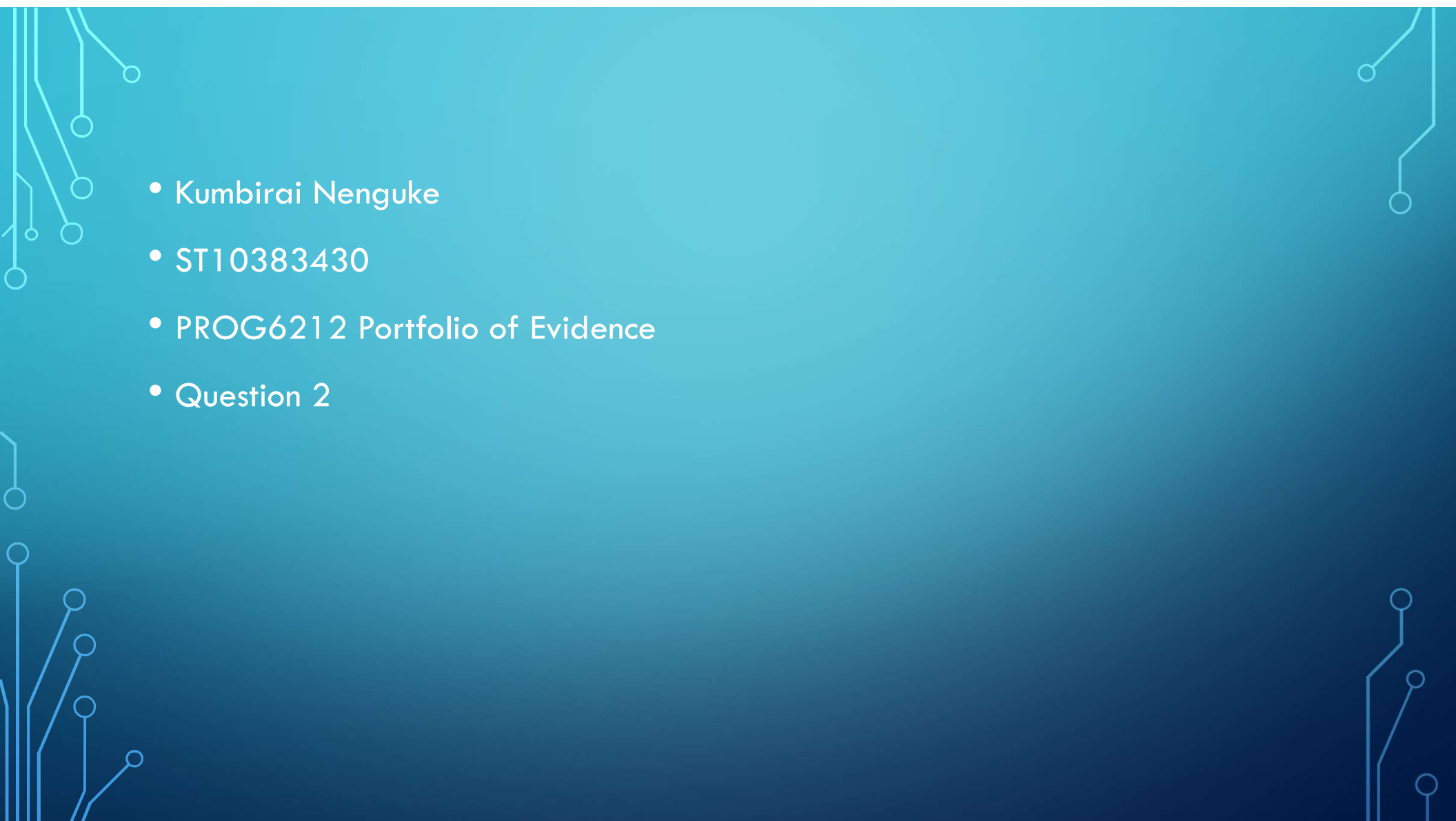


# CONTRACT MONTHLY CLAIM SYSTEM (CMCS)

AUTOMATING LECTURER CLAIMS MANAGEMENT FOR EFFICIENCY AND  
TRANSPARENCY



- 
- The background of the slide is a blue gradient. It features decorative white circuit-like lines with small circles at the ends, located in the top-left, top-right, bottom-left, and bottom-right corners.
- Kumbirai Nenguke
  - ST10383430
  - PROG6212 Portfolio of Evidence
  - Question 2

# ABOUT THE CMCS PROJECT:

- Brief description of the system:

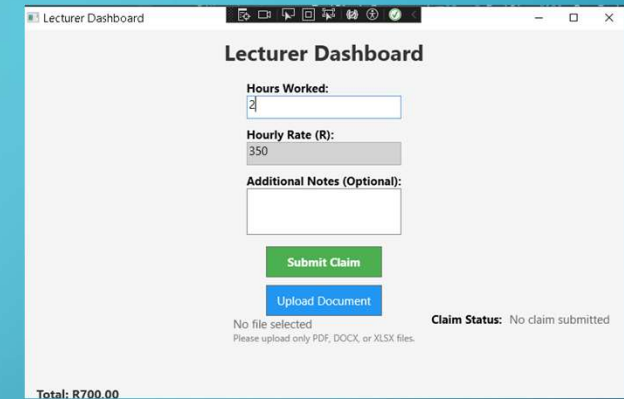
- The Contract Monthly Claim System is designed to simplify and automate the claims submission, approval, and processing workflow for Independent Contractor lecturers.*

- Objectives:

- Streamline claims management.
  - Enhance transparency and accuracy.
  - Improve administrative efficiency.

# WHAT MAKES CMCS UNIQUE?

- Auto-calculation for lecturer claims.
- Validation checks for accurate submissions.
- Automated approval workflows for coordinators/managers.
- Real-time status tracking.
- Document upload and secure storage.
- Automated invoice and report generation.



**Lecturer Dashboard**

Hours Worked:

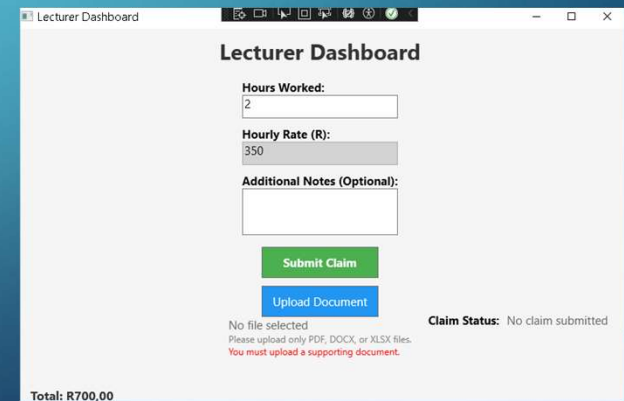
Hourly Rate (R):

Additional Notes (Optional):

No file selected  
Please upload only PDF, DOCX, or XLSX files.

**Claim Status:** No claim submitted

Total: R700.00



**Lecturer Dashboard**

Hours Worked:

Hourly Rate (R):

Additional Notes (Optional):

No file selected  
Please upload only PDF, DOCX, or XLSX files.  
**You must upload a supporting document.**

**Claim Status:** No claim submitted

Total: R700.00

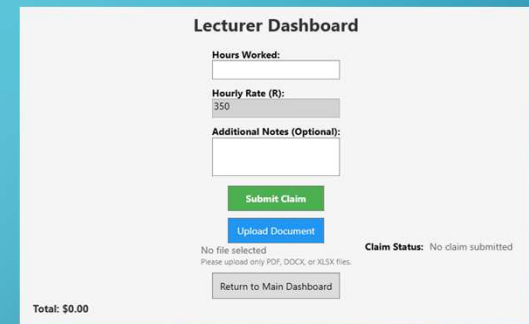
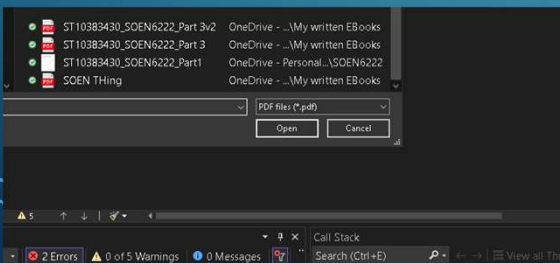
# SIMPLIFIED CLAIM SUBMISSION FOR LECTURERS

## Features:

- Auto-calculation of payment based on hours and rates.
- Validation to prevent incorrect data entry.
- Easy upload of supporting documents (PDF, DOCX, XLSX)

## Tools Used:

- ASP.NET Core MVC for form design.
- Entity Framework for database interactions.



**Lecturer Dashboard**

Hours Worked:

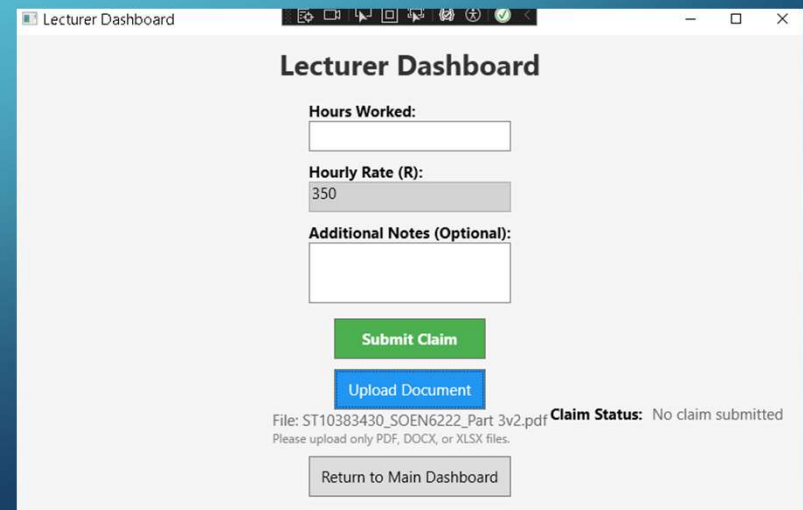
Hourly Rate (R): 350

Additional Notes (Optional):

No file selected  
Please upload only PDF, DOCX, or XLSX files.

**Claim Status:** No claim submitted

Total: \$0.00



**Lecturer Dashboard**

Hours Worked:

Hourly Rate (R): 350

Additional Notes (Optional):

File: ST10383430\_SOEN6222\_Part 3v2.pdf  
Please upload only PDF, DOCX, or XLSX files.

**Claim Status:** No claim submitted

# STREAMLINED APPROVAL PROCESS

## Features:

View pending claims with all details.

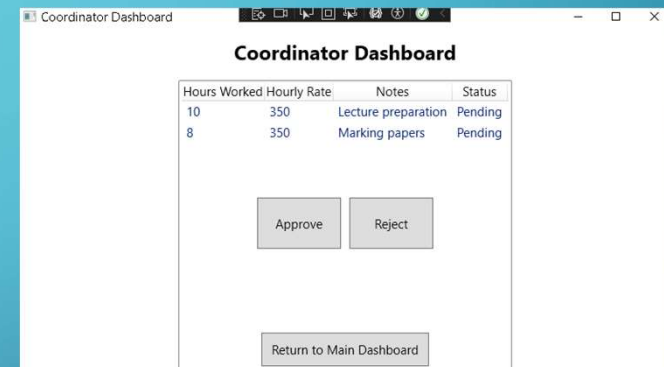
Approve or reject claims with a single click.

Automated checks for policy compliance.

## Tools Used:

ASP.NET Identity for role-based access.

FluentValidation for automated criteria checks.



# *AUTOMATED CLAIM PROCESSING AND REPORTS*

## Features:

- Generate invoices and reports for payment processing.
- Manage lecturer data (update personal/contact information).
- Secure and reliable data handling.

## Tools Used:

- Crystal Reports or SSRS for report generation.
- ASP.NET Core Razor Pages for HR interface.

# HOW AUTOMATION IMPROVES CMCS

- Auto-calculation minimizes errors and saves time.
- Real-time updates improve transparency.
- Streamlined workflows reduce manual intervention.
- Validation ensures accurate and reliable data entry.
- Automated reporting accelerates payment processing.

The image displays three screenshots of a web application titled "Lecturer Dashboard".

The top screenshot shows the main form with the following fields and values:

- Hours Worked:** 2
- Hourly Rate (R):** 350
- Additional Notes (Optional):** (empty text area)

Below the form are two buttons: "Submit Claim" (green) and "Upload Document" (blue). At the bottom, it says "No file selected" and "Please upload only PDF, DOCX, or XLSX files." The "Claim Status" is "No claim submitted". A "Total: R700.00" is displayed at the bottom left.

The bottom-left screenshot shows the form with the following values:

- Hours Worked:** 4
- Hourly Rate (R):** 350
- Additional Notes (Optional):** (empty text area)

The "Claim" status is now "Claim".

The bottom-right screenshot shows the form with the following values:

- Hours Worked:** 2
- Hourly Rate (R):** 350
- Additional Notes (Optional):** (empty text area)

The "Claim" status is "Claim". A red error message is displayed below the "Upload Document" button: "You must upload a supporting document."



# BEHIND THE SCENES OF CMCS



Overview of technologies used:



ASP.NET Core MVC for the web application.



Entity Framework Core for database management.



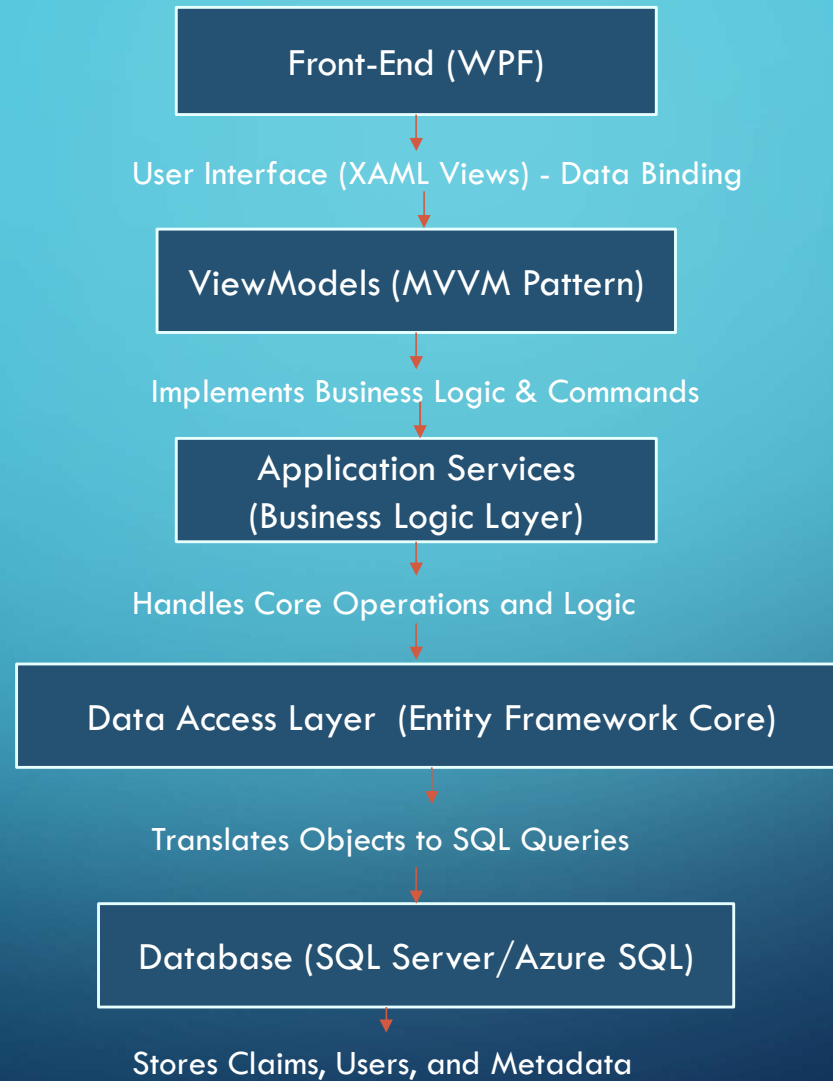
ASP.NET Identity for authentication/authorization.



JavaScript/jQuery for client-side validations.



Highlight integration between components (front-end, back-end, database).



# EXPLANATION

## Key Components:

### 1. Front-End (WPF XAML Views):

- Designed using **XAML** for building the user interface.
- Includes interactive elements like:
  - **Claim submission forms** for lecturers.
  - **Claim approval dashboards** for coordinators and managers.
  - **Real-time claim status trackers**.

### 2. MVVM Pattern:

- **ViewModels** connect the front-end (XAML views) to the back-end logic.
- Implements **Commands** and **Data Bindings** to:
  - Automatically update the UI when data changes.
  - Handle user interactions like button clicks or form submissions.
  - Audit logs for tracking claim updates and approvals.

# CONTINUATION

## 3.Application Services (Business Logic Layer):

- Core application logic for automation, calculations, and workflows:
  - Calculates claims automatically based on hours worked and hourly rates.
  - Handles validation (e.g., ensuring valid input data).
  - Manages the approval workflow for coordinators and managers.

## 4.Data Access Layer:

- Uses **Entity Framework Core** to interact with the database.
- Maps models like Lecturer, Claim, and Manager to SQL tables.

## 5.Database:

- Stores application data, including:
  - Claims: Hours worked, hourly rates, claim status.
  - Uploaded documents linked to claims.
  - Audit logs for tracking claim updates and approvals.

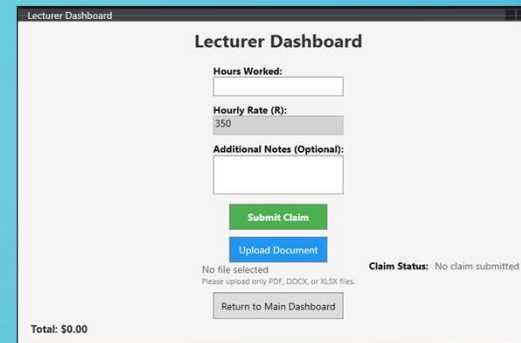
# ENSURING EASE OF USE

Features:

Intuitive navigation.

Minimal clicks for key actions.

Consistent color scheme (pink and cream).



**Lecturer Dashboard**

Hours Worked:

Hourly Rate (R):

Additional Notes (Optional):

[Submit Claim](#)

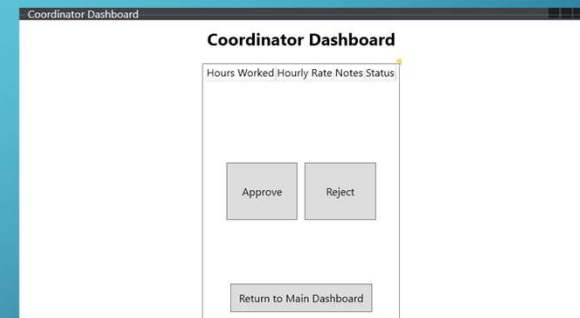
[Upload Document](#)

No file selected  
Please upload only PDF, DOCX, or XLSX files.

[Return to Main Dashboard](#)

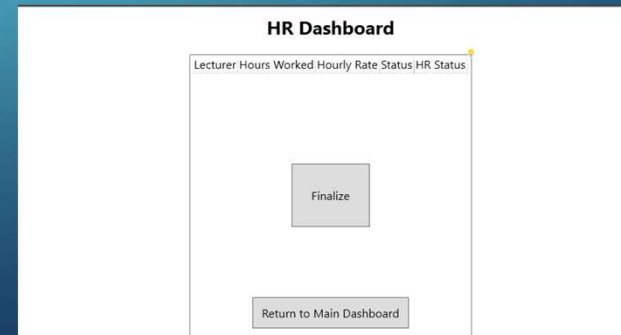
**Claim Status:** No claim submitted

Total: \$0.00



**Coordinator Dashboard**

Hours Worked	Hourly Rate	Notes	Status
<div><a href="#">Approve</a> <a href="#">Reject</a></div>			
<a href="#">Return to Main Dashboard</a>			



**HR Dashboard**

Lecturer	Hours Worked	Hourly Rate	Status	HR Status
<div><a href="#">Finalize</a></div>				
<a href="#">Return to Main Dashboard</a>				

# ENSURING SYSTEM RELIABILITY

Coverage:

Unit tests for submission, approval, and report generation features.

Tests for handling invalid inputs and errors gracefully.

Example:

Description of a test case and its successful execution.

# WHY CHOOSE CMCS?

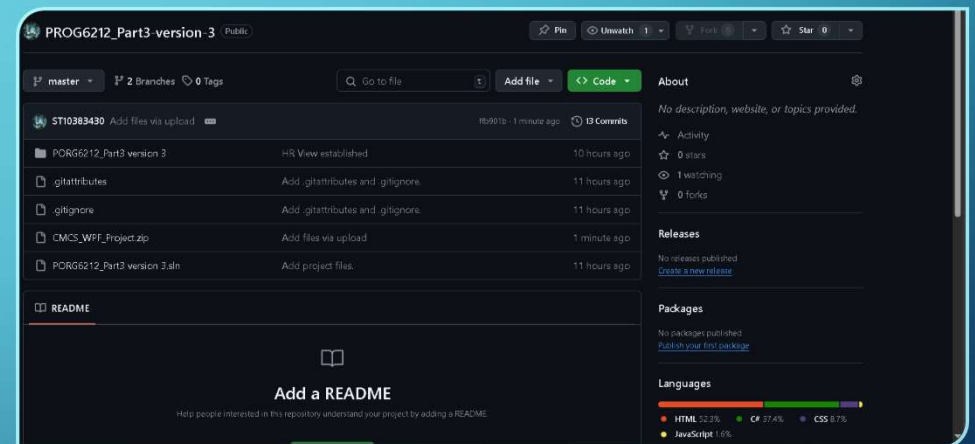
## Benefits:

- Reduced administrative overhead.
- Transparent claim tracking.
- Accurate payment calculations.
- Improved user satisfaction.

*"CMCS has transformed the way we manage claims, saving us hours every month!"*

# TRACKING DEVELOPMENT PROGRESS

- Overview of GitHub repository: 10 commits with descriptive messages.
- Regular updates and iterative improvements.
- [https://github.com/ST10383430/PROG6212\\_Part3-version-3.git](https://github.com/ST10383430/PROG6212_Part3-version-3.git)





# THE FUTURE OF CLAIMS MANAGEMENT

## **Summary of CMCS Impact:**

The Contract Monthly Claim System (CMCS) has revolutionized claims processing by providing:

- Automated calculations, reducing errors and saving time.

- Streamlined workflows, enhancing approval efficiency.

- Transparent and accurate payment tracking, building trust among lecturers and administrators.

## **Next Steps for CMCS:**

- Integration of mobile access to enhance flexibility.

- Advanced analytics to identify trends in claim submissions.

- AI-driven recommendations for further automation improvements.

# THANK YOU

- "Thank you for reviewing our Contract Monthly Claim System! CMCS is a step forward in modernizing claim management processes for Independent Contractors."

"Feel free to reach out for questions or further discussions about the CMCS project!"

## **Contact Info:**

- *Email:* [ST10383430@VCCONNECT.edu.za](mailto:ST10383430@VCCONNECT.edu.za)
- *Phone:* +27 123 456 789