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PROG6212

POE: Part 1

DUE: 9 September 2025

Part 1 – Project Planning and Prototype Development

1. Documentation

The Contract Monthly Claim System (CMCS) is a .NET Core WPF-based application that will help independent Contractor (IC) lecturers submit and track their monthly claims. Program Coordinators and Academic Managers will be able to review and approve these claims.

Design Choice

- Database: The database will use tables for Lecturer, Claim, SupportingDocuments, Coordinator, and Manager. This makes it easier to link claims to lecturers and track down who verified or approved them.
- GUI Layout: The interface is designed to be simple. Lecturers have a “Submit Claim” screen, Coordinators have a “Verify Claim” screen, and Managers have an “Approve Claim” screen.
- Version Control: Github is used to track changes and commits, so progress can be reviewed step by step.

Assumption

- All lecturers have login access to the system.
- Each claim will be handled by one Program Coordinator and one Academic Manager.
- All users will have internet access when submitting and verifying claims.

Constraints

- At this stage, the system is only a prototype (non-functional).
- The project must be completed within a limited time (4-7 days).
- The application is designed for desktop/web use, not mobile devices.

Database Structure

Lecturer

- LecturerID (PK)
- FullName
- Email
- HourlyRate

Claim

- ClaimID (PK)
- LecturerID (FK)
- HoursWorked
- TotalAmount
- Status (Pending/Verified/Approved/Rejected)
- SubmissionDate

SupportingDocument

- DocumentID (PK)
- ClaimID (FK)
- FilePath
- UploadDate

ProgramCoordinator

- CoordinatorID (PK)
- FullName
- Email

AcademicManager

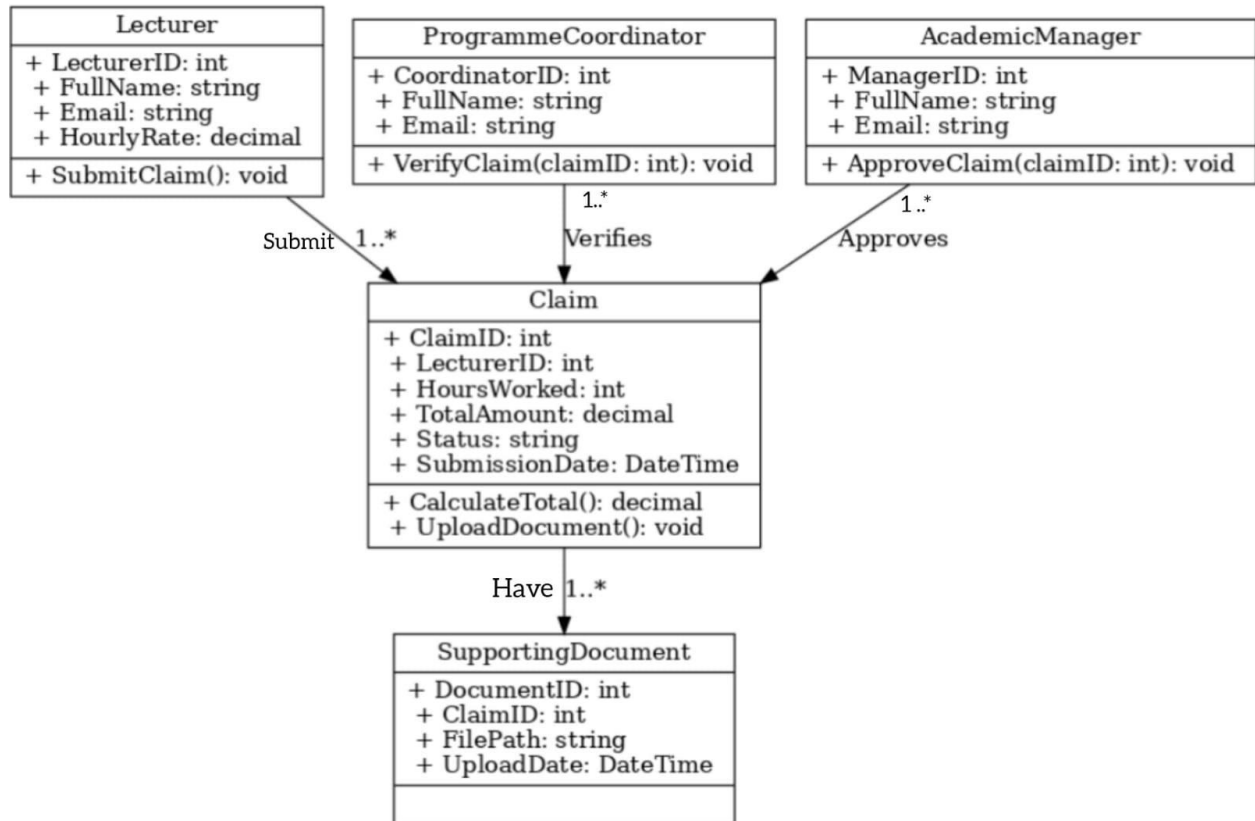
- ManagerID (PK)
- FullName
- Email

Relationships

- Lecturer ---> Claim: One Lecturer can submit many Claims.
- Claim ---> SupportingDocument: One Claim can have many Supporting Documents.
- ProgrammeCoordinator ---> Claim: One Coordinator can verify many Claims.
- AcademicManager ---> Claim: One Manager can approve many Claims.

2.UML Class Diagram

The UML diagram below shows the relationships between lecturers, claims, supporting documents, coordinators, and managers.



3.Project Plan

Task	Description	Timeline	Dependency
Project Setup	Create GitHub repo, set up Visual Studio project	Day 1	None
Documentation	Write system design, assumptions, and constraints	Day 1	Project Setup
UML Diagram	Add database UML diagram	Day 2	Documentation
GUI Prototype	Create WPF screen (non-functional)	Day 2-3	UML
Project Plan Finalization	Build and review project plan	Day 3	GUI Prototype
Final Submission	Submit Word doc + GitHub repo link	Day 4	All

This plan is realistic and achievable within the available timeframe.

4.GUI Prototype

The following mockup screens have been created:

1. Lecturer Screen – Submit monthly claim, enter hours worked, upload documents.

Lecturer Claim Submission Layout

Lecturer Claim Submission

Submit Your Claim

Month

Select month

Hours Worked

Enter hours worked

Upload Documents

Choose File Attachment.PDF

Submit

Reset

Lecturer Claim Submission Layout

Lecturer Claim Submission

Submit Your Claim

Month

July

Hours Worked

12

Upload Documents

Choose File Attachment.PDF

Selected: Attachment.PDF

Submit

Reset

2. Program Coordinator Screen – View and verify submitted claims.

Claims Verification Screen

Submitted Claims Verification

Review and verify lecturer submitted claims for payment processing

Filter by Month

All Months

Filter by Status

All Statuses

Claims Overview

6 claims found

Lecturer Name	Month	Hours	Status	Documents	Actions
Dr. Sarah Johnson	January 2025	120 hrs	Pending	<div><div>View</div><div>Download</div></div> <div><div>View</div><div>Download</div></div>	<div>Verify</div> <div>Reject</div>
Prof. Michael Chen	January 2025	98 hrs	Verified	<div><div>View</div><div>Download</div></div>	<div>Verified</div>
Dr. Emily Rodriguez	December 2024	110 hrs	Rejected	<div><div>View</div><div>Download</div></div> <div><div>View</div><div>Download</div></div> <div><div>View</div><div>Download</div></div>	<div>Rejected</div>
Prof. David Kim	January 2025	85 hrs	Pending	<div><div>View</div><div>Download</div></div>	<div>Verify</div> <div>Reject</div>
Dr. Lisa Thompson	December 2024	132 hrs	Pending	<div><div>View</div><div>Download</div></div> <div><div>View</div><div>Download</div></div>	<div>Verify</div> <div>Reject</div>
Prof. James Wilson	November 2024	95 hrs	Verified	<div><div>View</div><div>Download</div></div>	<div>Verified</div>

3. Academic Manager Screen – Approve claims after verification.

Academic Manager Screen

Claims Approval Dashboard

Search by lecturer, month, or verifier...

Lecturer Name	Month	Hours	Verified By	Status	Actions
Dr. Sarah Johnson	September 2024	120	Prof. Michael Chen	Pending	<div>✓ Approve</div> <div>✗ Reject</div>
Prof. David Martinez	September 2024	95	Dr. Lisa Wang	Pending	<div>✓ Approve</div> <div>✗ Reject</div>
Dr. Emily Thompson	August 2024	110	Prof. Robert Kim	Approved	<div>✓ Approve</div> <div>✗ Reject</div>
Prof. James Wilson	August 2024	88	Dr. Amanda Brown	Pending	<div>✓ Approve</div> <div>✗ Reject</div>
Dr. Maria Rodriguez	September 2024	102	Prof. Kevin Lee	Rejected	<div>✓ Approve</div> <div>✗ Reject</div>
Prof. Alexander Smith	August 2024	135	Dr. Jennifer Davis	Pending	<div>✓ Approve</div> <div>✗ Reject</div>

4. Claim Status Screen – Track progress (Pending, Verified, Approved, Rejected).

Claim Status Screen

Claim Status Tracker

Track the status of your submitted claims

Status Legend

Pending

Verified

Approved

Rejected

Your Claims

Month	Hours	Status	Verified By	Approved By
January 2024	40 hrs	Approved	John Smith	Sarah Johnson
February 2024	35 hrs	Verified	John Smith	-
March 2024	42 hrs	Pending	-	-
April 2024	38 hrs	Rejected	John Smith	-
May 2024	45 hrs	Approved	John Smith	Sarah Johnson
June 2024	40 hrs	Verified	John Smith	-
July 2024	37 hrs	Pending	-	-

5.Version Control

The project is linked to Github for version control.

- Repository name: CMCS_Part1
- Five commits:
 1. Initial Commit – project setup
 2. Added documentation draft
 3. Added UML diagram
 4. Added GUI prototype screens
 5. Finalized project plan and report

This ensures changes are tracked, and progress can be verified.

References

- The Independent Institute of Education (IIE). (2025). *IIE Harvard Referencing guide*. The IIE.
- GitHub. (2025). *GitHub basics: Repositories and version control*. Available at: <https://github.com> [Accessed 4 September 2025].