

Cover Page

Module: PROG6212

Programming 2B

Student Number: ST10439309

Name: Mofenyi Kubheka

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Feedback

| Criteria | Does not meet the required standard | Meets the required standard | Partially exceeds the required standard | Greatly exceeds the required standard | Criterion Score |
|---|--|---|---|--|-----------------|
| Documentation: Design Choices and Structure [15 Marks] | 7 points The explanation of design choices, database structure, and GUI layout lacks clarity and depth. The rationale behind design decisions is unclear or poorly justified. 0-7 Marks | 10 points The explanation of design choices, database structure, and GUI layout is clear and adequately detailed. The rationale behind design decisions is reasonable but may lack some depth or coherence. 8-10 Marks | 12 points The explanation of design choices, database structure, and GUI layout demonstrates clarity, depth, and coherence. The rationale behind design decisions is well-developed and logically presented. 11-12 Marks ✓ | 15 points The explanation of design choices, database structure, and GUI layout is exceptionally clear, detailed, and coherent. The rationale behind design decisions is comprehensive and effectively justifies all aspects of the design. 13-15 Marks | 12 / 15 |
| Documentation: Assumptions and Constraints [5 Marks] | 0 points Assumptions or constraints are not provided or are irrelevant to the project requirements. 0-1 Marks | 2 points Relevant assumptions or constraints are provided but lack detail or clarity. 2 Marks | 4 points Relevant assumptions or constraints are clearly stated and aligned with the project requirements. 3-4 Marks ✓ | 5 points Comprehensive and well-explained assumptions or constraints are provided, demonstrating a thorough understanding of project requirements. 5 Marks | 4 / 5 |
| UML Class Diagram for Databases: Accuracy and Completeness [20 Marks] | 9 points The class diagram is inaccurate or incomplete, failing to represent the data requirements effectively. 0-9 Marks | 14 points The class diagram is mostly accurate and complete, representing most data requirements but with some inaccuracies or omissions. 10-14 Marks | 17 points The class diagram is accurate and complete, effectively representing the data requirements. 15-17 Marks | 20 points The class diagram is highly accurate and complete, providing a comprehensive representation of all data requirements. 18-20 Marks ✓ | 18 / 20 |
| Project Plan: Realism and Achievability [25 Marks] | 12 points The project plan is unrealistic or lacks detail, with unclear tasks, dependencies, or timelines. 0-12 Marks | 18 points The project plan is somewhat realistic and achievable, outlining tasks, dependencies, and timeline with some clarity but lacking detail. 13-18 Marks ✓ | 22 points The project plan is realistic and achievable, providing clear tasks, dependencies, and timeline with sufficient detail. 19-22 Marks | 25 points The project plan is highly realistic and achievable, presenting clear, detailed tasks, dependencies, and timeline, demonstrating excellent planning skills. 23-25 Marks | 15 / 25 |
| Criterion Feedback under estimates on the time lines | | | | | |
| GUI UI: Design and User-Friendliness [25 Marks] | 12 points The GUI design lacks user-friendliness and intuitiveness, with poor layout and usability. 0-12 Marks | 18 points The GUI design is somewhat user-friendly and intuitive, with adequate layout and usability but room for improvement. 13-18 Marks ✓ | 22 points The GUI design is user-friendly and intuitive, with good layout and usability. 19-22 Marks | 25 points The GUI design is highly user-friendly and intuitive, with excellent layout and usability, exceeding expectations. 23-25 Marks | 14 / 25 |
| Criterion Feedback GUI requires improvement | | | | | |
| Version Control: Commit Frequency and Descriptive Messages [10 Marks] | 0 points 1 Commit is infrequent, and commit messages lack clarity or description of changes. 0-4 Marks | 5 points 2 Commits are somewhat frequent, but commit messages may lack clarity or detail. 5-7 Marks | 8 points 3 Commits are reasonably frequent and commit messages to provide clarity and detail regarding changes. 8-9 Marks ✓ | 10 points 5 Commits are frequent, and commit messages are clear, descriptive, and informative, demonstrating excellent version control practices. 10 Marks | 8 / 10 |
| Total | | | | | 71 / 100 |

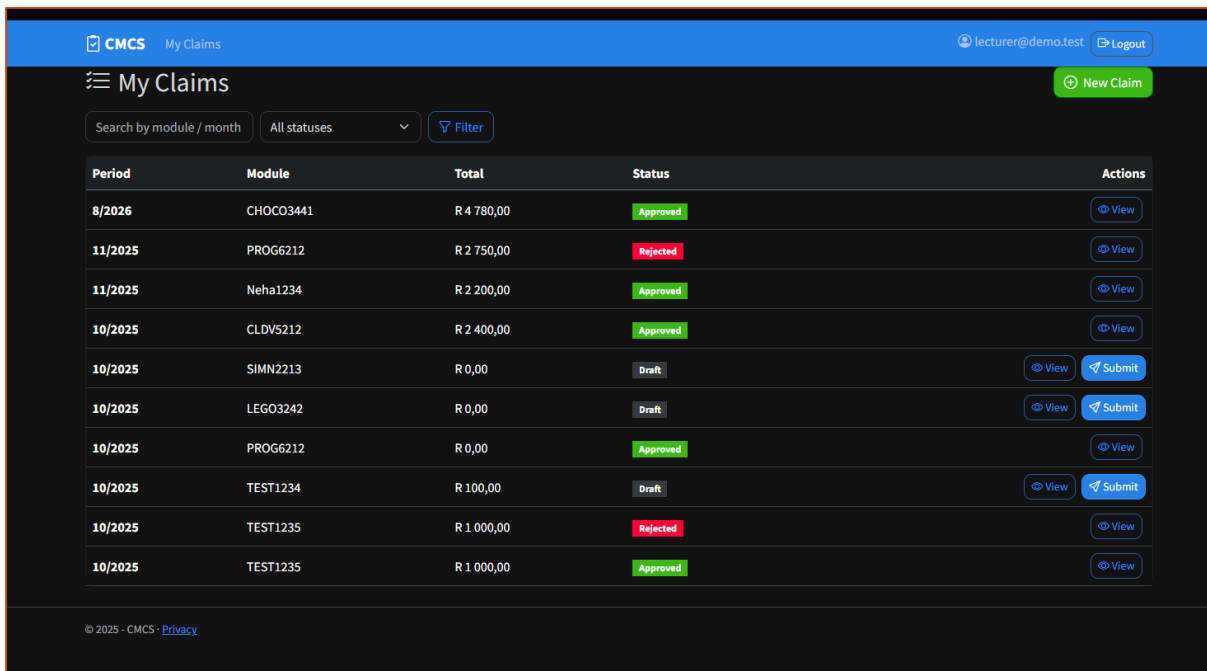
Notes on the feedback were taken and used to improve the program, namely the GUI is more appealing and user friendly as well as certain systems being more stable and easier to understand and having clear communication in their functions. Although it may not be perfect it is an improvement upon Part 1s iteration.

System Functions

At the beginning there is a login for each account. Each account has its role to play within the system and if one wants to access another account or function, they will need to log out, then log into the other account.

Dummy emails were used in the video for demonstration purposes.

Lecturer Functions



The screenshot displays the 'My Claims' page in the CMCS system. The header shows the user is logged in as 'lecturer@demo.test' with a 'Logout' button. The page title is 'My Claims' with a 'New Claim' button in the top right. Below the title, there are search and filter options: 'Search by module / month', 'All statuses', and a 'Filter' button. The main content is a table with the following data:

| Period | Module | Total | Status | Actions |
|---------|-----------|------------|----------|---|
| 8/2026 | CHOCO3441 | R 4 780,00 | Approved | View |
| 11/2025 | PROG6212 | R 2 750,00 | Rejected | View |
| 11/2025 | Neha1234 | R 2 200,00 | Approved | View |
| 10/2025 | CLDV5212 | R 2 400,00 | Approved | View |
| 10/2025 | SIMN2213 | R 0,00 | Draft | View Submit |
| 10/2025 | LEGO3242 | R 0,00 | Draft | View Submit |
| 10/2025 | PROG6212 | R 0,00 | Approved | View |
| 10/2025 | TEST1234 | R 100,00 | Draft | View Submit |
| 10/2025 | TEST1235 | R 1 000,00 | Rejected | View |
| 10/2025 | TEST1235 | R 1 000,00 | Approved | View |

At the bottom of the page, there is a footer: '© 2025 - CMCS - [Privacy](#)'.

- Once the lecturer has logged in, they are greeted all current claims that have been submitted as well as their status. They can create a new claim by selecting new claim in the upper right corner of the screen.

CMCS My Claims lecturer@demo.test Logout

New Claim

LecturerName

ModuleCode

Year: 2025 Month: 10

Create

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- Once they have decided to create a new claim, they are prompted to enter their name and module as well as the month and year that the claim is being created.

CMCS My Claims lecturer@demo.test Logout

Submit Submit

Claim 10/2025 Draft

| Date | Hours | Rate | Amount | Notes |
|-------|-------|------|--------|-------|
| Total | | | R 0,00 | |

Date: yyyy/mm/dd Hours: Rate: Notes: +

Upload Supporting Documents

Choose file No file chosen Upload

Allowed: .pdf, .docx, .xlsx — 10MB max

Summary

Lecturer: test3
Module: TEST1236
Period: 10/2025

Status Timeline

No history yet.

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- Once that is done, they can enter a new line entry for the day they worked, the hours worked within that day, their hourly wage as well as any notes they would like to add to their claim. They can do this as many times as they need as each entry is saved and they also have the ability to add supporting documentation to their claims as a form of validation.

CMCS
My Claims
lecturer@demo.test
Logout

Document uploaded.

Submit
Submit

Claim 10/2025
Draft

| Date | Hours | Rate | Amount | Notes |
|------------|-------|----------|------------|-------------|
| 2025/10/24 | 4,0 | R 325,00 | R 1 300,00 | test test |
| 2025/10/27 | 6,0 | R 455,00 | R 2 730,00 | test test 2 |
| 2025/10/30 | 2,0 | R 256,00 | R 512,00 | test test 3 |
| Total | | | R 4 542,00 | |

Date
Hours
Rate
Notes

yyyy/mm/dd

+

Upload Supporting Documents

Choose file
No file chosen
Upload

Allowed: .pdf, .docx, .xlsx — 10MB max

The IIF Harvard Anglia Style Reference Guide - Adapted for The IIF 2025-b51122fa.pdf
1 040 KB • 2025/10/23 14:27:07

IIF MSA BCAD0701 Year 2 Programme Assessment Schedule 2025 V3.pdf
160 KB • 2025/10/23 14:28:02

Summary

Lecturer
test3
Module
TEST1236
Period
10/2025

Status Timeline

No history yet.

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- Once everything is entered, they can click to submit their claim to have it reviewed whilst still retaining the ability to reopen their claim for any additions they'd like to add.

CMCS
My Claims
lecturer@demo.test
Logout

Status set to Submitted.

Reopen
Reopen

Claim 10/2025
Submitted

| Date | Hours | Rate | Amount | Notes |
|------------|-------|----------|------------|-------------|
| 2025/10/24 | 4,0 | R 325,00 | R 1 300,00 | test test |
| 2025/10/27 | 6,0 | R 455,00 | R 2 730,00 | test test 2 |
| 2025/10/30 | 2,0 | R 256,00 | R 512,00 | test test 3 |
| Total | | | R 4 542,00 | |

Date
Hours
Rate
Notes

yyyy/mm/dd

+

Upload Supporting Documents

Choose file
No file chosen
Upload

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160 KB • 2025/10/23 14:28:02

Summary

Lecturer
test3
Module
TEST1236
Period
10/2025

Status Timeline

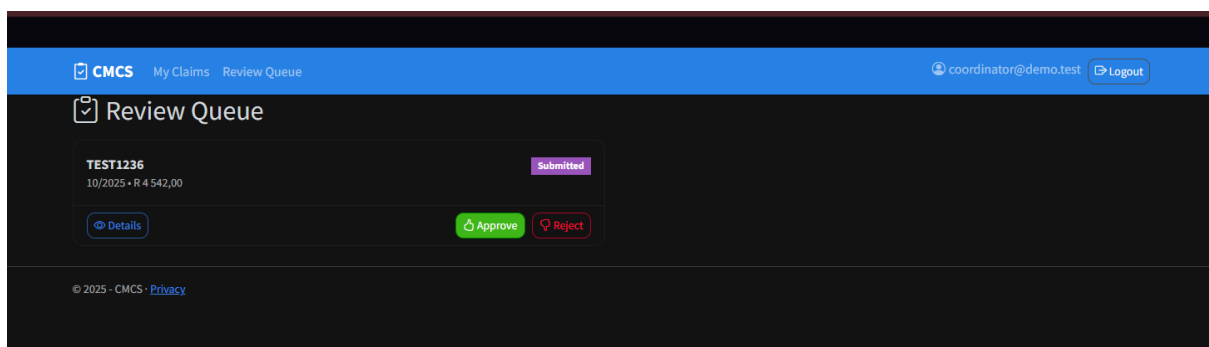
Submitted
2025/10/23 14:30:36 by lecturer@demo.test

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| Period | Module | Total | Status | Actions |
|---------|-----------|------------|-----------|---|
| 8/2026 | CHOC03441 | R 4 780,00 | Approved | View |
| 11/2025 | PROG6212 | R 2 750,00 | Rejected | View |
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| 10/2025 | TEST1234 | R 100,00 | Draft | View Submit |
| 10/2025 | TEST1235 | R 1 000,00 | Rejected | View |
| 10/2025 | TEST1235 | R 1 000,00 | Approved | View |
| 10/2025 | TEST1236 | R 4 542,00 | Submitted | View |

Programme Coordinator Functions

The programme coordinator can look at any claim that has been submitted and decide whether to review it in the review queue tab that is only accessible to them and the manager. Once the claim is under review they may approve or reject the claim. They retain access to see the details of the claim.



- As stated earlier they can either look at the details of the claim or just approve or reject the claim immediately, any decision they make is reflected in the status history of the claim.

CMCS
My Claims
Review Queue
coordinator@demo.test
Logout

Start Review
Reopen

Claim 10/2025

Submitted

| Line Items | | | | |
|------------|-------|----------|------------|-------------|
| Date | Hours | Rate | Amount | Notes |
| 2025/10/24 | 4,0 | R 325,00 | R 1 300,00 | test test |
| 2025/10/27 | 6,0 | R 455,00 | R 2 730,00 | test test 2 |
| 2025/10/30 | 2,0 | R 256,00 | R 512,00 | test test 3 |
| Total | | | R 4 542,00 | |

Upload Supporting Documents

Choose file
No file chosen
Upload

Allowed: .pdf, .docx, .xlsx — 10MB max

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160 KB • 2025/10/23 14:28:02

Summary

Lecturer: test3
Module: TEST1236
Period: 10/2025

Status Timeline

Submitted
2025/10/23 14:30:36 by lecturer@demo.test

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- If they chose to look at the details they will see the option to start the review process. The reopen option is looked out to them as that is exclusive to the Lecturer who created the claim.

CMCS
My Claims
Review Queue
coordinator@demo.test
Logout

Status set to UnderReview.

Recommend Approve
Recommend Reject
Reopen

Claim 10/2025

Under Review

| Line Items | | | | |
|------------|-------|----------|------------|-------------|
| Date | Hours | Rate | Amount | Notes |
| 2025/10/24 | 4,0 | R 325,00 | R 1 300,00 | test test |
| 2025/10/27 | 6,0 | R 455,00 | R 2 730,00 | test test 2 |
| 2025/10/30 | 2,0 | R 256,00 | R 512,00 | test test 3 |
| Total | | | R 4 542,00 | |

Upload Supporting Documents

Choose file
No file chosen
Upload

Allowed: .pdf, .docx, .xlsx — 10MB max

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160 KB • 2025/10/23 14:28:02

Summary

Lecturer: test3
Module: TEST1236
Period: 10/2025

Status Timeline

Under Review
2025/10/23 14:55:49 by coordinator@demo.test

Submitted
2025/10/23 14:30:36 by lecturer@demo.test

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- Once under review, they can recommend approving or rejecting the claim to the manager and any decision made is reflected in the status history of the claim.

8

My Claims
Review Queue

coordinator@demo.test
Logout

Status set to CoordinatorApproved.

Recommend Reject

Claim 10/2025

Coordinator Approved

Line Items

| Date | Hours | Rate | Amount | Notes |
|------------|-------|----------|------------|-------------|
| 2025/10/24 | 4,0 | R 325,00 | R 1 300,00 | test test |
| 2025/10/27 | 6,0 | R 455,00 | R 2 730,00 | test test 2 |
| 2025/10/30 | 2,0 | R 256,00 | R 512,00 | test test 3 |
| Total | | | R 4 542,00 | |

Summary

| | |
|----------|----------|
| Lecturer | test3 |
| Module | TEST1236 |
| Period | 10/2025 |

Status Timeline

- Coordinator Approved

2025/10/23 14:55:57 by coordinator@demo.test
- Under Review

2025/10/23 14:55:49 by coordinator@demo.test
- Submitted

2025/10/23 14:30:36 by lecturer@demo.test

Upload Supporting Documents

Choose file

No file chosen

Upload

Allowed: .pdf, .docx, .xlsx — 10MB max

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1 040 KB • 2025/10/23 14:27:07

IIE MSA BCAD0701 Year 2 Programme Assessment Schedule 2025 V3.pdf
160 KB • 2025/10/23 14:28:02

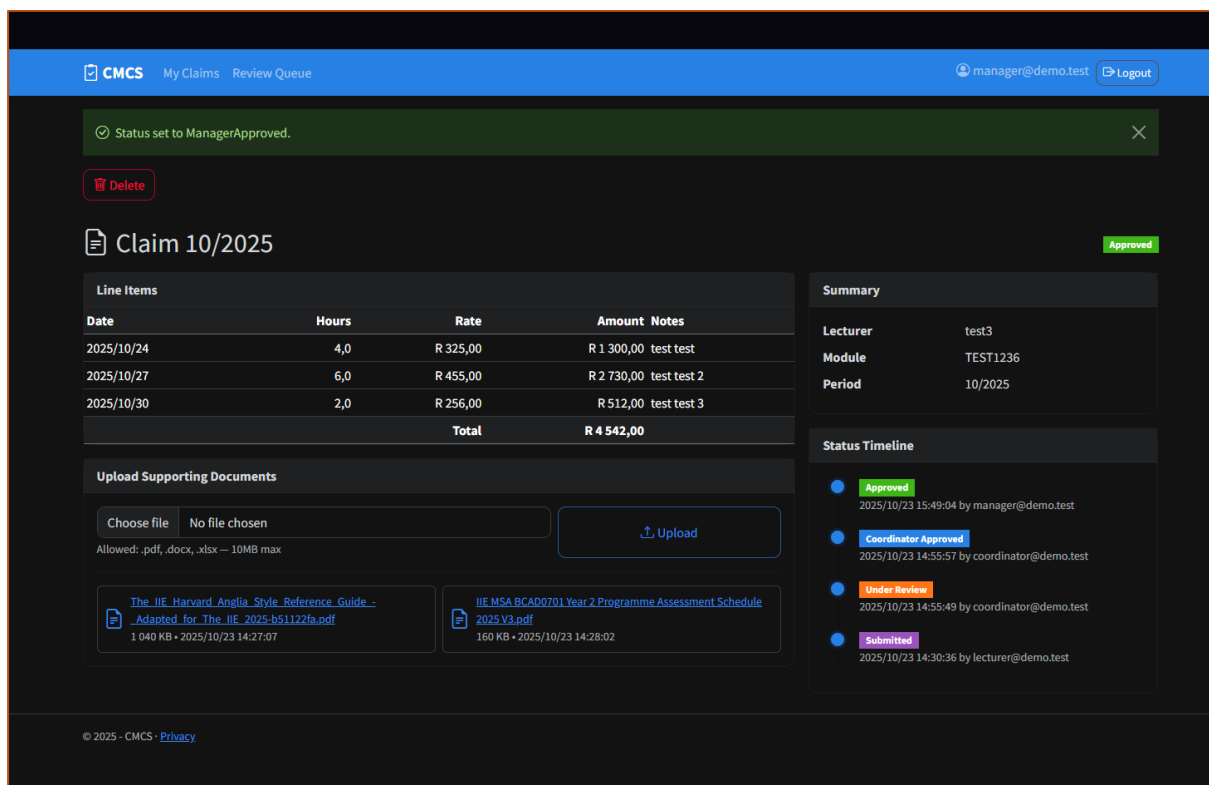
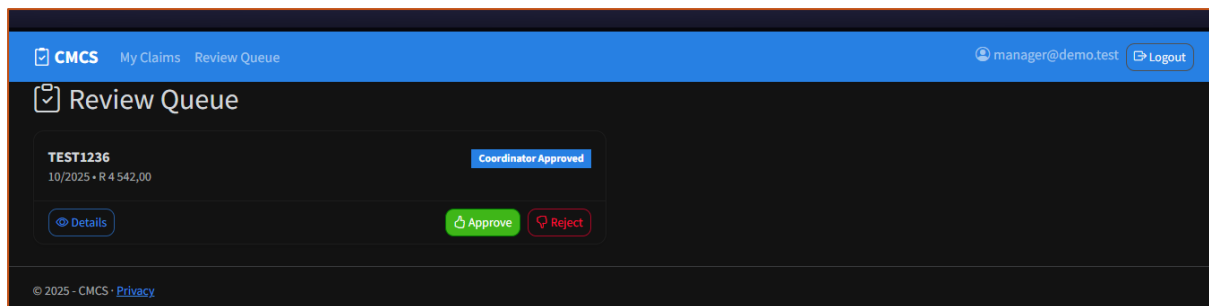
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- All updates are recorded and reflected.

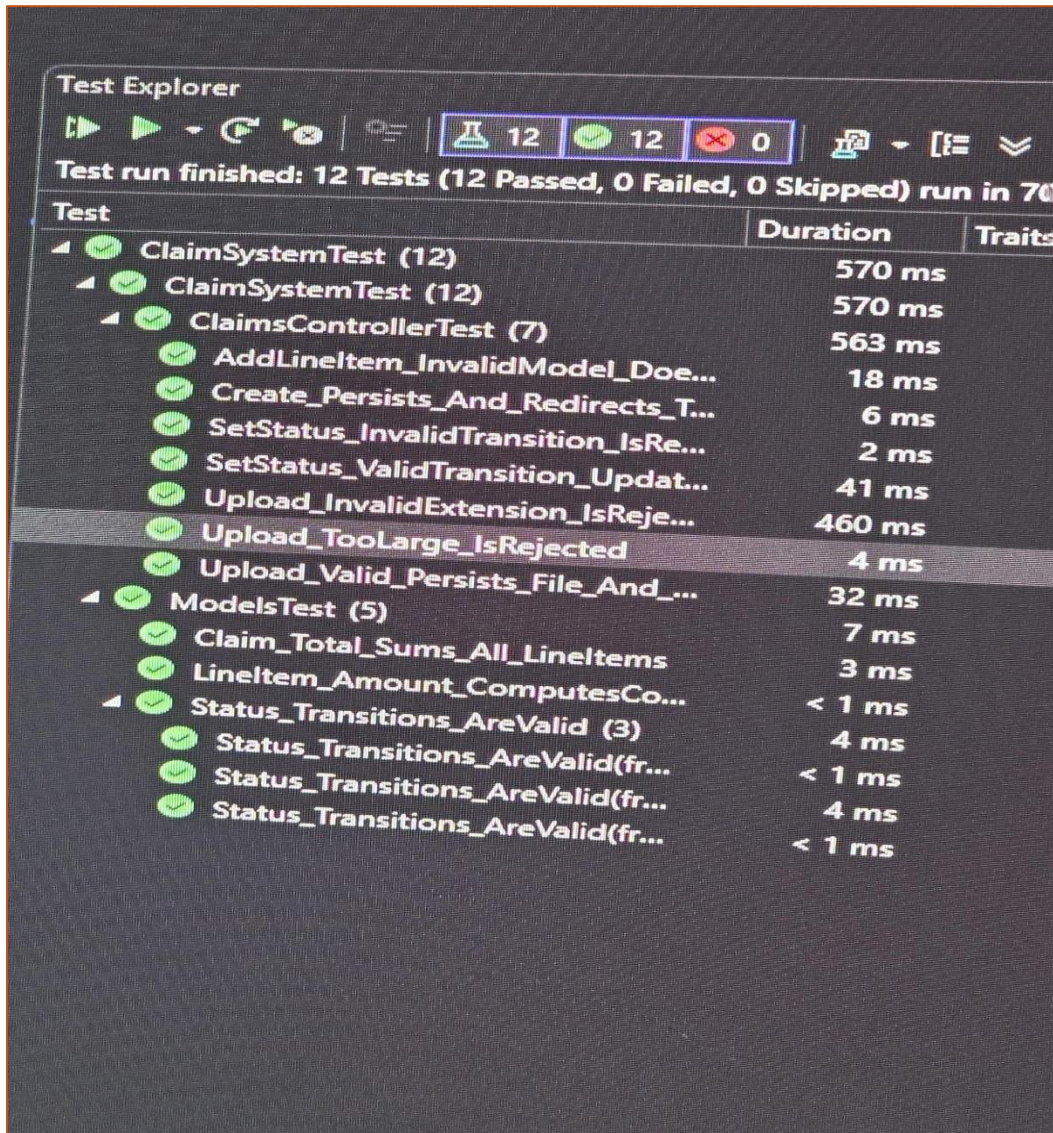
Manager Functions

The manager acts as the final approval authority for any claim, they have the option to either take the recommendation that the coordinator has left or decide entirely on their own. As a safety measure decisions cannot be made without the claim being tagged as under review as to ensure security.

They also have the ability to delete any claims within the system.



Unit Test



Test Explorer

Test run finished: 12 Tests (12 Passed, 0 Failed, 0 Skipped) run in 700 ms

| Test | Duration | Traits |
|-------------------------------------|----------|--------|
| ClaimSystemTest (12) | 570 ms | |
| ClaimSystemTest (12) | 570 ms | |
| ClaimsControllerTest (7) | 563 ms | |
| AddLineItem_InvalidModel_Doe... | 18 ms | |
| Create_Persists_And_Redirects_T... | 6 ms | |
| SetStatus_InvalidTransition_IsRe... | 2 ms | |
| SetStatus_ValidTransition_Updat... | 41 ms | |
| Upload_InvalidExtension_IsReje... | 460 ms | |
| Upload_TooLarge_IsRejected | 4 ms | |
| Upload_Valid_Persists_File_And_... | 32 ms | |
| ModelsTest (5) | 7 ms | |
| Claim_Total_Sums_All_LineItems | 3 ms | |
| LineItem_Amount_ComputesCo... | < 1 ms | |
| Status_Transitions_AreValid (3) | 4 ms | |
| Status_Transitions_AreValid(fr... | < 1 ms | |
| Status_Transitions_AreValid(fr... | 4 ms | |
| Status_Transitions_AreValid(fr... | < 1 ms | |

- This photo was taken from my phone as a proper screenshot of the unit tests was corrupted when my PC crashed.



Screenshots of commits.

