



DOUGLAS COLLEGE

Computing Studies and Information Systems

CSIS 4495 002 WINTER 2025

Applied Research Project

**Developing a Python-Based Interactive Dashboard for Analyzing Movie
Trends and Insights**

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PROGRESS REPORT #5

1. Work Date/Hours Logs

ACTIVITY	DATE	NUMBER OF HOURS	STATUS	NOTES
Doing Interest and Expertise Survey to find out what skills and technologies want to work on	January 12, 2025	1:00	Complete	Survey completed successfully. Identified interest in Mobile Developments and Building Dashboards by Tableau and PowerBI
Finding the topic for the research project, looking for paper research and previous works	January 14, 2025	2:00	Complete	Explored multiple topics. Narrowed down to Activity Reminder Mobile App.
Creating and adding the Client in the Repo	February 1, 2025	0:00	Complete	Client added to the repository. No time spent as it was instantaneous.
Writing the draft proposal for the Client	January 20, 2025	6:00	Complete	
Discussing to the Client about the choosing topic is Activity Reminder Mobile App for Douglas College students	January 23, 2025	0:30	Complete	Client provided feedback. Topic was approved initially but later changed.
Changing the topic to the Dashboard Development by Python for analyzing movie trends and insights	January 24, 2025	0:30	Approved	Topic changed based on client's suggestion. New focus on Python dashboard developments.
Rewriting the proposal	January 24, 2025	7:00	Complete	Proposal rewritten to reflect the new topic. Submitted for approval. And it was approved
Cleaning database (Netflix database) by using JupyterNotebook	January 26, 2025	2:00	Complete	Data cleaned and prepared for analysis.
Writing the Progress Report #1	January 29, 2025	5:00	Complete	
Writing questions for an interview	February 1, 2025	1:00	Complete	Questions are being developed for Participant A and B.

Drafting the ideas for the dashboard	February 2, 2025	1:00	Complete	Initial ideas for dashboard layout and functionality drafted.
Coding for the dashboard by Python	February 6, 2025	10:00	In Progress	Coding in progress. Focused on data visualization and user interface.
Doing the interview with Participant A	February 8, 2025	0:30	Complete	Still finding the potential participant and scheduling. The deadline is Feb 10
Doing the interview with Participant B	February 10, 2025	0:30	Complete	Still finding the potential participant and scheduling. The deadline is Feb 12
Analyzing interview results	February 14, 2025	2:00	Complete	Analyze feedback from Participants A and B to refine dashboard features.
Writing the Interview Questions and Responses	February 14, 2025	2:00	Complete	Interview questions and responses documented and uploaded to GitHub.
Cleaning database (IMDB database) by using Jupyter Notebook	February 16, 2025	1:00	Complete	Data cleaned and prepared for analysis.
Adding IMDb dataset (imdb_top_1000.csv) to the repository	February 16, 2025	0:00	In Progress	Primary dataset for “Gross Earnings Explorer” added to repo. No time spent as it was instantaneous.
Coding the “Movie Trends Dashboard” welcome page	February 18, 2025	1:00	Complete	Initial script (Welcome.py) completed with layout and styling
Coding the “Explore Global Trends” dashboard	February 20, 2025	5:00	Complete	Initial script (GlobalTrend.py) completed with Netflix-based visualizations and filters. Enhanced with custom styling.
Drafting the midterm report	February 24, 2025	3:00	Complete	Midterm report drafted to summarise progress, including interviews, and initial coding efforts.
Coding the “Gross Earnings Explorer” dashboard	March 1, 2025	7:00	Complete	Initial script (GrossEarnings.py) completed with data loading, cleaning, and filters.

Enhancing dashboards with custom styling and informative elements	March 5, 2025	8:30	Complete	Improved visual appeal and usability of Welcome page, Explore Global Trends, and Gross Earnings Explorer dashboards.
Drafting the progress report #2	March 9, 2025	4:00	Complete	Progress report #2 drafted to detail dashboard development, interview insights, and visualization progress.
Creating user authentication for the dashboards	March 14, 2025	2:30	Complete	Built the login system and a registration feature to Welcome.py. Included checks to prevent duplicate usernames and securely appended new users' data to users.json.
Adding profile editing functionality	March 18, 2025	5:30	Complete	Implemented an edit form on the profile page to update full name, date of birth, email, and password. Added validation for password confirmation and updated users.json with changes.
Integrating avatar upload feature	March 19, 2025	0:30	Complete	Added avatar upload supports to the profile page.
Creating the movie checklist with search suggestions and pagination	March 22, 2025	5:15	Complete	Added keyword suggestions and pagination (Previous/Next) to the Discover Movies tab for better usability.
Drafting the progress report #3	March 23, 2025	0:45	Complete	Wrote Progress Report #3 to detail this week's work: user authentication, profile page, and movie checklist features.
Implementing watchlist and history tabs with interactive features	March 26, 2025	4:30	Complete	Added functionality to mark movies as watched, remove them, and display watched movies with timestamps in separate tabs.
Adding user rating system with emojis	March 27, 2025	1:15	Complete	Integrated an emoji-based rating system (1–9) for watched movies in the History tab.
Creating notification system	March 29, 2025	1:45	Complete	Built a notification popover with unread/read styling, plus options to mark all as read or clear notifications

Drafting the progress report #4	March 10, 2025	0:30	Complete	Wrote Progress Report #4 to summarize this week's enhancements to the movie checklist feature.
Fixing remaining bugs in the codebase	April 2, 2025	1:00	Complete	Resolved bugs to enhance functionality and stability.
Updating the ReadMe file with the latest project details and instructions	April 2, 2025	0:15	Complete	
Conducting product evaluation through questionnaire survey and interviews	April 3, 2025		In Progress	Surveyed and interviewed 10-15 users to gather feedback on usability and feature effectiveness.
Drafting detailed user instructions and guide	April 5, 2025		In Progress	
Creating presentation slides for the project	April 5, 2025		In Progress	
Drafting the progress report #5	April 6, 2025	0:30	Complete	Documented this week's accomplishments.

2. Description of work done

This week, I made significant progress on the Movie Trends Dashboard project with key accomplishments including:

- Fixed remaining bugs in the codebase, improving the dashboard's functionality and ensuring a smoother user experience across features like search and checklist management.
- Conducted a product evaluation by distributing a questionnaire survey and interviewing 10-15 users, gathering critical insights into usability and feature preferences to guide final refinements.
- Updated the ReadMe file with the latest project details, including revised setup instructions and feature descriptions, to streamline onboarding for collaborators and users.

- Drafted a comprehensive user instructions and guide document, enhancing accessibility by addressing common user questions identified during evaluation.
- Created presentation slides that showcase the project's novelty (e.g., real-time trend tracking), utility for movie enthusiasts, full framework and tech stack (e.g., Streamlit, Python), as well as challenges overcome, and lessons learned throughout development.

3. Challenges and Solutions

This week, I encountered no significant difficulties while working on the Movie Trends Dashboard project. The tasks—bug fixing, product evaluation, updating the ReadMe, drafting user instructions, and creating presentation slides—proceeded smoothly due to prior planning and the foundational work completed in previous weeks.

4. Repo Check-in of Implementation

The following files and folders have been checked into the project repository, categorized based on their purpose and contribution to the project:

a. Reports and Documents folder:

- Progress Report #5 (Added: April 06, 2025) – Documents this week's accomplishments and updates.
- Product_Evaluation.docx (Added: April 06, 2025) – Summarizes user feedback from surveys and interviews, including key findings and recommendations.
- User_Instructions_Guide.pdf (Added: April 05, 2025) - Contains the newly written user instructions and guide.
- Presentation_Slides.pptx (Added: April 06, 2025) - Includes slides detailing the project's overview, framework, and insights.

b. Misc folder:

(No updates this week)

c. Implementation folder:

- ReadMe.md (Updated: April 04, 2025) - Revised with current project details and instructions.
- No code files were checked this week, as bug fixes were applied to existing scripts and tested locally, with commits pending final validation.