Milestone #04 - Progress Evaluation

FIT Schedule Planner
Pedro Moura - pmoura2020@my.fit.edu
Jordan Synodis - jsynodis2021@my.fit.edu
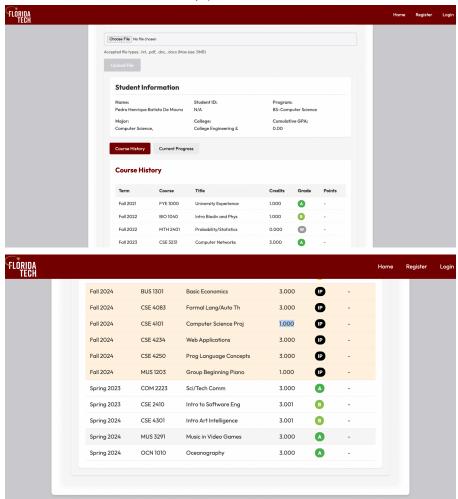Dr. Fitz - fnembhard@fit.edu

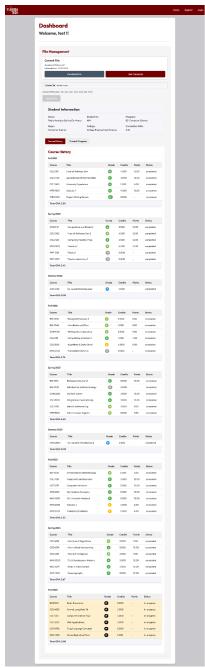| Task	Completion	Pedro	Jordan	Todos
1. Implement, test, and demo **Loading the CAPP Degree Evaluation**	90%	100%	0%	Improve data extraction and time processing
2. Implement, test, and demo **Accessing the program checklist**	75%	0%	100%	Checklist is generated and users can interact with it; need to concatenate Degree Evaluation
3. Implement, test, and demo **Additional filtering option (RateMyProfessor)**	100%	0%	100%	Implemented RateMyProf API to grab professor ratings for filtering
4. **Fix user context**	100%	100%	0%	none

- Discussion of each accomplished task (and obstacles) for the current Milestone:
  - Task 1. Implement, test, and demo loading the CAPP Degree:
    - A lot of effort and energy was spent trying to improve the regex implementation, but the file's content structure is too inconsistent. After trying many times, we decided to implement a version with LLM. We used OpenAI API and were able to get much better results. It is still not perfect but seems to be a better way to do it.

■ Demo:
  ● Before (using Regex, only got 15 courses out of 44 present on transcript):

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Choose File No file chosen

Accepted file types: .txt, .pdf, .doc, .docx (Max size: 5MB)

[Upload File]

Student Information

Name:	**Student ID:**	**Program:**
Pedro Henrique Batista De Moura	N/A	BS-Computer Science
Major:	**College:**	**Cumulative GPA:**
Computer Science,	College Engineering &	0.00

[Course History] [Current Progress]

Course History

Term	Course	Title	Credits	Grade	Points
Fall 2021	FYE 1000	University Experience	1.000	A	-
Fall 2022	BIO 1040	Intro Biodiv and Phys	1.000	B	-
Fall 2022	MTH 2401	Probability/Statistics	0.000	W	-
Fall 2023	CSE 3231	Computer Networks	3.000	A	-

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Term	Course	Title	Credits	Grade	Points
Fall 2024	BUS 1301	Basic Economics	3.000	IP	-
Fall 2024	CSE 4083	Formal Lang/Auto Th	3.000	IP	-
Fall 2024	CSE 4101	Computer Science Proj	1.000	IP	-
Fall 2024	CSE 4234	Web Applications	3.000	IP	-
Fall 2024	CSE 4250	Prog Language Concepts	3.000	IP	-
Fall 2024	MUS 1203	Group Beginning Piano	1.000	IP	-
Spring 2023	COM 2223	Sci/Tech Comm	3.000	A	-
Spring 2023	CSE 2410	Intro to Software Eng	3.001	B	-
Spring 2024	CSE 4301	Intro Art Intelligence	3.001	B	-
Spring 2024	MUS 3291	Music in Video Games	3.000	A	-
Spring 2024	OCN 1010	Oceanography	3.000	A	-

- After (using LLM, got all 44 courses from the transcript. But some values, like GPA and Points, are not 100% accurate):

- ○ Task 2: Added an area for the user to select their program. Then the program is grabbed from the database and displayed below. You can interact with it for now, but it should be automatic if there is a Degree Evaluation.
- ○ Task 3: RateMyProfessor api is fully implemented and is only used when the filter is applied. We kept it as a separate entity because we thought it to be an easier way instead of loading all the values into the database and pulling from there.

- ○ Task 4: Honestly, it was an easy fix. We were wrapping the component in the wrong place.

- Discussion of the contribution of each team member to the current Milestone:
  - ○ Pedro Moura:
    - Tried improving the previous parser implementation in many ways, from making better regexes to trying pre-processing uploaded data by removing unnecessary data with the expectation of better-formatted data. (Did not work…)
    - Changed the approach from regex to LLM (opted to use OpenAI API after trying Mistral and Llama3). Set up the system and user roles, and response format.
    - Integrated the LLM model into the current application, then updated front-end to display model's response data.

  - ○ Jordan Synodis:
    - Used RateMyProfessor API to access scores for specific professors. Added a filter so sections with "better" professors are shown first. Added RateMyProfessor score next to professor names
    - Added an area for user to select their desired program. Program is displayed as a checklist that the user can check/uncheck certain classes. Need to integrate the data from the Degree Evaluation so checks are done automatically
    - Updated necessary style-related files for the check list and the additional filter

- Plan for the next Milestone (task matrix):

Task	Pedro	Jordan
1. Implement, test, and demo **Prerequisite checking system**	50%	50%
2. Implement, test, and demo **Schedule updates**	50%	50%
3. **Conduct evaluation and analyze results**	0%	100%
4. **Design a poster for the showcase**	100%	0%

- Description for each task in the task summary for the next milestone:

- Task 1: Implement a system where when user tries to add a class to their schedule, it checks if user has prerequisites for that class. If they have, add on schedule. Otherwise, notify user and prevent to add on schedule.
    - Task 2: Class information like capacity change constantly so we need to implement something that will refresh classes so the user can plan accordingly
    - Task 3: Test every feature with a wide variety of inputs to ensure everything works as it should. Attempt to break application to reveal areas that still need to be worked on.
    - Task 4: Design a poster following the guidelines from the showcase.

- Date(s) of meeting(s) with Client during the current milestone:
    - See Faculty Advisor Feedback below

- Client feedback on the current milestone:
    - See Faculty Advisor Feedback below
- Date(s) of meeting(s) with Faculty Advisor during the current milestone: …
    - Feb 21, 2025
- Faculty Advisor feedback on each task for the current Milestone
    - Task 1: … What was the performance of each LLM? Don't you need to pay for OpenAI access? Since Llama3 is open source, it may be a better choice. Prompt engineering may help to improve the results.
    - Task 2: …
    - Task 3: …
    - Task 4: …
    - Task 5: …
    - Task 6: …
    - Task 7: …

Faculty Advisor Signature: _____ Date: __02-23-2025__

1. **Evaluation by Faculty Advisor**
   - Faculty Advisor: detach and return this page to Dr. Chan (HC 209) or email the scores to **pkc@cs.fit.edu**
   - Score (0-10) for each member: circle a score (or circle two adjacent scores for .25 or write down a real number between 0 and 10)

| Pedro Moura | 0 | 1 | 2 | 3 | 4 | 5 | 5.5 | 6 | 6.5 | 7 | 7.5 | 8 | 8.5 | 9 | 9.5 | (10) |
| Jordan Synodis | 0 | 1 | 2 | 3 | 4 | 5 | 5.5 | 6 | 6.5 | 7 | 7.5 | 8 | 8.5 | 9 | 9.5 | (10) |

Faculty Advisor Signature: _____ **Date:** __02-23-2025__