**Sprint Review Report – Team Portion**

**Combining LLMs to improve Generative AI content development**

**Sprint dates:** 10/9/24 - 10/23/24

| **Team Member** | **Role** |
| --- | --- |
| Antonio Sousa Jr (AJ) | Team Lead, Tech Lead |
| Matthew Greeson | Scrum Master, Team Researcher, Tech Dev |
| Antonio Morais | Team Researcher, Tech Dev |
| Goncalo Felix | Tech Dev, Team Tester |
| Dylan Ricci | Tech Dev, Lead Documenter |
| Ryan Medeiros | Tech Dev, Team Tester |

**Point Scale:**

* Tasks with the most importance will be given a score of High.

High priority tasks must be urgently worked on to meet a deadline and or continue the progress flow.

* Tasks with a moderate level of importance will be given a score of Medium.

Medium priority tasks need to be addressed by the team in a timely manner, but are not as important as High priority tasks.

* Tasks with a little importance will be given a score of Low.

Low priority tasks do not need to be addressed quickly, but do need to be kept in mind by the team.

**New/Pending**

**Story 1:** As a developer, I want to develop a GUI for our application, so that users have an easy frontend to operate.

**Task 1:** Research different frontend frameworks for the application

**Points:** Medium

**Members assigned:** Matt

**Task 2:** Build frontend for application

**Points:** Medium

**Members assigned :** Matt

**Task 3:** Integrate front and backend of application

**Points:** Medium

**Members assigned:** Matt, AJ

**Ready**

**Story 1:** As a developer, I want to create a table to show the strengths and weaknesses of each model

**Task 1:** Pugh Matrix

**Points:** Medium

**Due Date:** N/A

**Members assigned:** Matt

**Story 2:** As developers working under Rite Solutions, we are required to follow their rules when working in their company.

**Task 1:** Figure out the NDA situation

**Points:** Medium

**Due Date:** N/A

**Members assigned:** AJ

**Active/Ready for review/Complete**

**Make sure to put the Complete stories/tasks before the Ready for review and before Active.**

**Story 1:** As a developer I want to make sure my project is documented properly so that people working on this project in the future are able to understand our workflow.

**Task 1:** Complete the SDP document to show Rite Solutions what our overall plan for the project

**Points: High**

**Due Date:** 10/18/2024

**Status:** Complete

**Members originally assigned:** ALL

**Members Completed:** ALL

**Task 2:** Build Glossary to help with our project documentation

**Points**: High

**Due Date:** 10/11/24

**Status:** Complete

**Members assigned:** ALL

**Members Completed:** ALL

**Story 2:** As a developer I want to thoroughly research my topics so that we can be confident in our work and be up to date on the latest AI models.

**Task 1:** Research LLAMA and its possible features.

**Points:** High

**Due Date:** 11/6/24

**Status:** In Process

**Members assigned:** AJ, Goncalo

**Task 2:** Research BLOOM and its possible features.

**Points:** Medium

**Due Date:** 11/6/24

**Status:** In Process

**Members assigned:** Dylan, Antonio M.

**Task 3:** Research BERT and its possible features.

**Points:** Medium

**Due Date:** 11/6/24

**Status:** In Process

**Members assigned:** Ryan, Matthew

**Task 4:** Review URI Documentation

**Points:** High

**Due Date:** 11/6/24

**Status:** In Process

**Members assigned:** ALL

**Task 5:** Research DeepSeek and its possible features

**Points:** High

**Due Date:** 11/6/24

**Status:** In Process

**Members assigned:** Dylan

**Task 6:** Research Langchain and its possible features

**Points:** High

**Due Date:** 11/6/24

**Status:** In Process

**Members assigned:** AJ

**Story 3:** As a developer I want to make sure my project is documented properly so that people working on this project in the future are able to understand our workflow.

**Task 1:** Meeting Notes on 10/11/24

**Points:** Low

**Status:** Complete

**Members originally assigned:** Dylan

**Members Completed:** Dylan

**Task 2:** Meeting Notes on 10/18/24

**Points:** Low

**Status:** Complete

**Members originally assigned:** Dylan

**Members Completed:** Dylan

**Story 4:** As a developer I want to create a basic rag application using LangChain and llama 3.1 so that we have a baseline for our project

**Task 1:** Look through langchain rag application documentation

**Points: High**

**Status:** Complete

**Members originally assigned:** AJ

**Members Completed:** AJ

**Task 2:** Complete RAG application with llama 3.1 and langchain

**Points: High**

**Status:** Complete

**Members originally assigned:** AJ

**Members Completed:** AJ

**Backburner**

**Story 1:** As a developer, I want to develop a docker image to containerize the software, so that our software can run on any hardware

**Task 1:** Gather various dependencies

**Points:** Medium

**Members assigned:** AJ

**Task 2:** Build dockerfile

**Points:** Medium

**Members assigned:** AJ

**Task 3:** Test Image

**Points:** Medium

**Members assigned:** AJ

**Scrum Meetings**

| **Date** | **Members Present** | **Progress** | **Challenges** |
| --- | --- | --- | --- |
| 10-10-24 | Matthew, Dylan, Goncalo, Ryan, AJ, Antonio Morais | Discussed topics and issues to be brought up at the next client meeting. | No new challenges currently |
| 10-14-24 | Dylan, Matthew, Goncalo, AJ, Ryan, Antonio Morais | Met on discord to talk about weekly goals and plans. | Starting the SDP document for a timely submission. |
| 10-16-24 | Antonio Morais, Dylan, Matthew, Goncalo, AJ, Ryan | Talked about SDP and what progress had been made. Developed a rough draft plan. Discussed Bloom’s shortcomings | SDP still incomplete, halfway complete. |
| 10-18-24 | Dylan, Matthew, Goncalo, AJ, Ryan | Discussed topics to bring up during the client meeting. | No new challenges |
| 10-21-24 | Dylan, Matthew, Goncalo, AJ, Ryan | Started to work on sprint reports. | No new challenges |
| 10-23-24 | Antonio Morais, Dylan, Matthew, Goncalo, AJ, Ryan | Worked to finish up sprint reports. | No new challenges |

**Other Team Meetings (longer than scrum)**

| **Date** | **Platform (in person, Zoom, Slack, Discord, MS Teams..)** | **Members Present** | **Progress** | **Challenges** |
| --- | --- | --- | --- | --- |
| 10-11-24 | In person (CCB) | Antonio Morais, Dylan, Matthew, Goncalo, AJ | Worked on finishing the Glossary, Worked on Client meeting prep. | N/A |
| 10-16-24 | In person (Library) | Antonio Morais, Dylan, Matthew, Goncalo, AJ | Worked on SDP. Discussed next steps we would need to work on in the project. Started research into DeepSeek | Integrating bloom. |
| 10-18-24 | In person (CCB & Library) | Dylan, Matthew, AJ, Ryan, Goncalo | Finalized our SDP for submission. Started working on a “rough draft” plan for the project. | Creating and finalizing the SDP. Section 4 of the SDP was a bit challenging to complete. |
| 10-21-24 | In person (CCB & Library) | Matthew, AJ, Dylan | Reviewed progress over the weekend. Shown the installation process to get Llama 3.1 working. | Working out langchain. Adding content for Llama 3.1 to the GitHub Repo. |
| 10-23-24 | In person (CCB) | Matthew, Dylan, Ryan, AJ | Completed our sprint reports and discussed our SDP. | Assigning specific tasks to all individuals in the group. |

**Client Meetings**

| **Date** | **Members Present** | **Challenges/issues by the client** |
| --- | --- | --- |
| 10-11-24 | Antonio Morais, Dylan, Matthew, Goncalo, AJ, Ryan | Discussed progress on our NDA situation. Start developing our plan (SDP) ASAP. Keep a record of things we use and don’t use (Specific LLMs). Avoid licensing fees or any legal trouble!! |
| 10-18-24 | Dylan, Matthew, AJ, Ryan, Goncalo | RAG approach, ways to scrape data to train the model. Want the SDP once graded by TA. Talked about sources where we can get our data (arXiv, Google scholar, Kaggle, etc). Not required to handle images, videos and or audio formats for our LLMs. |

**Retrospective**

| **Challenge** | **Resolution** | **Impact/Result** |
| --- | --- | --- |
| Bloom Integration | Bloom was unable to be properly integrated | Pivot research into DeepSeek |
| NDA | N/A | Still waiting on NDAs to be sent to us by the Dean’s office |
| SDP | Developed our plan for our project, all group members contributed. | Submitted our Software Development Plan for grading. Given feedback from the TA |

**Retrospective – continuous improvement**

**State any completed goals for the current sprint (not only project goals, but team dynamics, issues resolved within the team or team/client work).**

* Models have been integrated on the remote server
* Content added to our group capstone GitHub Repo
* Completed proper documentation required by the client
* Finished Software Development Plan

**State any future goals for the next sprint (not only project goals, but team dynamics, issues resolved within the team or team/client work).**

* Fully integrate RAG approach
* Assign specific tasks for all group members
* Develop small front-end GUI application for users
* All members should be on the same schedule for meetings
* Work on a way to compile a database of test materials to train the models