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Midterm Activity – Social Coding Midterm Project

# Social Coding Selection

Select a social coding project application for your team from the below options:

* Option 1: Feature enhancements of the Lab 4.9.2 code by adding user-friendly features to the MapQuest REST API [Level of difficulty: +++]
* Option 2: Adapting the Lab 4.9.2 python framework to integrate GPT-3/GPT-4 REST API [Level of difficulty: ++++]

**Team 404**

**What were the reasons your team selected this option**

We decided to go with option 2, this is because option 2 has more difficulty level, so we wanted to challenge ourselves. Moreover, it gives us opportunities to provide more features to the project compared to option 1. We added extra features such as: GUI and Static map, which can be considered as option 1. Our main option is option 2 (GPT3), but we also have other useful features, which can be considered as option 1.

**Describe your team's project application and its deliverables. What are the specific objectives of this application?**

Our team's main objective with this project was to create a tool that would make it easy for users to navigate and explore new locations. We wanted to create an application that was user-friendly and comprehensive, which is why we decided to integrate GPT-3. By using a natural language-based approach, we believed that our application would be able to provide users with more personalized and accurate suggestions for hotels and gas stations. Alongside with these features, our application is capable of showing road directions and the static map of the travelling distance as an image.

Our application's deliverables included the completed code for the application, along with detailed documentation on how to use and maintain it. We also conducted user testing multiple times withing the group members to improve the application's functionality and usability. Our team also created a project plan, design specifications, and performance metrics to ensure that we were meeting our goals and objectives throughout the development process. Overall, we believe that our project has the potential to be a valuable tool for anyone looking to explore new locations.

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Record your team member roles and skillsets

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| Team member | Role/Knowledge/Skillset |
| Elyor 12204556 | Role: Leadership, Software developer Knowledge: project management Skillset: GitHub, time management, programming |
| Rustam 12204516 | Role: Software developer & Recorder Knowledge: Tkinter for UI, user interface design principles Skillset: GitHub, programming, creativity |
| Temur 12204574 | Role: Software developer, technical supporter Knowledge: Software testing, programming languages Skillset: GitHub, programming, analytical thinking |
| Nigara 12200276 | Role: Software developer, UX designer Knowledge: User-centered design principles Skillset: GitHub, programming, designing |
| Javokhir 12204567 | Role: Software developer, debugger Knowledge: Code analysis, troubleshooting Skillset: GitHub, Problem-solving, programming |

# Strategy/Project Plan

Provide a brief description of your team’s strategy for completing this project.

Initially, our team identified the key objectives of the project and brainstormed potential solutions. We also conducted research on GPT-3 and its capabilities to determine how we could integrate it into our application. Once we had a clear idea of our project's objectives, we divided the work among team members and created a project plan. We identified milestones and deadlines to ensure that we were on track and making progress towards our goals. During the development process, we maintained regular communication to ensure that everyone was aware of progress and any issues that arose. We also conducted regular testing to ensure that the application was functioning as intended. Throughout the project, we prioritized multiple testing among group members to improve the application's functionality and usability. We also documented our work and processes to ensure that we could easily maintain and update the application in the future. Overall, our team's strategy was to work collaboratively, prioritize user needs, and maintain a clear focus on our project's objectives. By doing so, we were able to successfully complete the project and create a valuable tool for users, who want to travel.

# Using GitHub for Collaboration

**What is the link to your GitHub repository?**

<https://github.com/JavokhirJambulov/Team_404_Midterm>

**Describe how GitHub was used to:**

1. **Create branches (in the context of this project)**

We used our own branches for adding new features to the application and testing purposes. Lastly, we merged the final code and pushed it into main branch.

1. **Add team members (and their branches/commits)**

Temur 12204574 – 12204574 branch, committed basic GPT3 integration with the presentation file of the project.

Elyor 12204556 – 12204556 branch, committed basic static map with GUI without input file and a documentation file of the group project.

Javokhir 12204567 - master branch, committed static map with GUI and user input file, and final map application with chatgpt without GUI file.

Rustam 12204516 – 12204516 branch, committed the project with GUI, which shows the route, hotels and gas stations.

Nigara 12200276 – 12200276 branch, committed the final version of the project by updating the GUI, so that the application can show the static map as well.

1. **Mention pull requests, code review, merge, etc. (in the context of this project)**

Instead of pull requests from GitHub, mostly we cloned each other’s code to make some modifications using terminal, so that we worked on the code locally without needing an internet connection, and also enabled us to have a complete backup of the repository in case something goes wrong. After every feature was ready, we merged the features into one final code and committed that file to main branch.

# Final Deliverables

**Presentation**

Create a presentation about the project you selected. Your presentation should include:

* Information about your application, covering what features your team included
* The reasons that your team decided on these specific features in your application
* Application code including comments and documentation. Your comments and documentation should be sufficient for any other team to be able to continue the project if required. Another team should be able to understand the application, your features and how to continue with the project
* Demonstration of the application
* List of future enhancements (backlog)
* Reflection points – what issues have you faced while working on this activity, how did you find solutions, what have you learned, etc.