**Team Contract**

**I. Team Members:**

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**II. Expectations**

**Meeting Time and Frequency:** The team will meet every Friday from 8:00 PM to 10:00 PM. Meetings will be held in-person, with an option to join via Teams if a team member has expressed interest in doing so at least 24 hours prior. Additional meetings may be scheduled as and when necessary.

**General:** All team members are expected to attend all meetings and contribute to discussions and development tasks. Team members should complete assigned tasks on time, with regular progress updates shared during meetings. Open communication is essential; members should be proactive in raising any issues or delays. Each member is responsible for testing and maintaining detailed documentation of their work, ensuring smooth handovers if needed.Shape

**III. Project Focus**

The focus of the project is to develop an **AI agent that automates key aspects of project management**, including task allocation, progress tracking, and predictive analytics. These agents will leverage machine learning models to optimize team workflows by distributing tasks based on skill sets, tracking real-time progress, and identifying potential delays or risks. For example, an AI agent could be integrated with a project management board such as GitHub or Azure DevOps to answer questions such as: “Which tasks are likely to miss their deadlines based on current progress?”, “Who is working on which task?”, “What tasks should be prioritized based on current progress?”

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**IV. Role of Team Members**

Each team member will contribute to a key area of the project. **Varad Parte** will primarily focus on the AI development, integrating GPT models for task automation and natural language interaction. **Daksh Prajapati** will handle the front-end development, designing interactive UI that presents the AI's outputs in an actionable format. **Arya Narke** will be responsible for backend and database management, ensuring seamless data flow between the AI, project management tools, and user interface. **Jalin Solankee** will focus on building machine learning models for predictive analytics, enabling the AI agent to forecast task outcomes and potential delays. Additionally, each team member will handle the testing and documentation of their individual tasks.

**Individual Capstone Assignment**

For my senior design project, my team and I are developing a custom AI agent designed to automate essential aspects of project management. The AI agent will focus on task allocation, progress tracking, and predictive analytics, leveraging models like GPT to optimize workflows by distributing tasks based on team members’ skills and availability, while providing real-time updates on project progress. From my academic perspective, this project perfectly aligns with my interests in artificial intelligence and full-stack web development. It presents an excellent opportunity to apply the skills I have developed throughout my Computer Science coursework and previous co-op experiences.

My college curriculum has provided me with a strong foundation for contributing to this project. Courses such as **CS 4033 AI Principles and Applications** have given me a deep understanding of artificial intelligence, which is essential for building and integrating the AI agent in our project. **CS 4071 D & A of Algorithms** strengthened my ability to solve complex problems, a critical skill for developing an AI system that can make intelligent decisions. **CS 4092 Database Design and Development** provided me with expertise in managing and structuring databases, which is vital for creating the backend architecture needed for task management and data storage. Additionally, **EECE 3093C Software Engineering** introduced me to Agile development methodologies, which we will use to manage the project’s lifecycle efficiently. Furthermore, **CS 5127 Requirements Engineering** will guide me in gathering and managing project requirements to ensure the AI agent meets the functional needs of users.

My co-op experiences have also played a significant role in preparing me for this project. At **Schneider Electric**, I worked as a **Software Developer Intern**, gaining hands-on experience in full-stack web development and creating an internal website used to manage employee details. This gave me a solid foundation in both front-end and back-end development, as well as a deep appreciation for version control and deployment processes. During my most recent internship at **Cincinnati Children’s Hospital Medical Center**, I worked on software development projects, where I contributed to React and TypeScript components and collaborated with multiple teams. This experience taught me the importance of communication and collaboration, especially when working in multi-disciplinary teams, and it will directly apply to our senior design team dynamics.

I am highly motivated to participate in this project due to my passion for AI and its potential to streamline project management workflows. Having witnessed inefficiencies in task management during my co-ops, I am excited to contribute to a solution that can automate key tasks and enhance productivity. My preliminary approach involves dividing the project into phases: first, focusing on the AI agent’s integration with GPT models, followed by the backend database setup for managing tasks, and finally, front-end development for user interactions. This structured approach ensures that each component is thoroughly tested before moving on to the next phase, allowing for smooth integration and operation.

I expect our project to deliver a fully functioning AI agent capable of automating project management tasks, offering predictive insights, and ultimately improving workflow efficiency. My personal contribution will focus on AI integration and database management, ensuring that the GPT model works seamlessly with the backend and frontend systems. To evaluate my performance, I will measure success by the agent’s ability to meet functional requirements, smooth integration, and positive user feedback. I will also rely on feedback from my team and advisor to gauge my contributions and alignment with project goals. I will know that I have done a good job when the AI agent enhances productivity and meets the outlined technical specifications.