OOP and Design Patterns (CSCI 375)
Student Showcase (Final Project) Rubric

1. Project Title: Connect 4 with ChatGPT API

2. Team Members: Ben Loveland, Dillon McDermott, Liam Maddox

3. Evaluator: Liam Maddox

Grading Rubric:

Instructions:
1. There are 9 technical requirements to grade the project and the team presentation.
2. For each requirement, use 0 - 5 scale in the Score column (0 - F, 1 - Needs improvement, 2 - Poor, 3 - Fair, 4 – Good, 5 - Excellent)
3. Use the *Notes* section to jot down any observations that may help in grading and justification.

Team and Technical Project Requirement	Score
1. **Use of fundamental OOD concepts**, e.g.: Inheritance, Abstraction, Attributes, Getters, Setters, Methods, Modularity, Overloading, etc. Notes: We used Object Oriented Design patterns and concepts throughout the project, and I feel like it's well formatted around them.	5/5
2. **Use of at least 3 Design Patterns** -- presentation clearly stated and briefly explained design patterns use. Common design patterns are Iterator, Decorator, Observer, Strategy, Command, State, Singleton, Adapter, Façade, Flyweight, Abstract Factory, Composite, Template, MVC, etc. Notes: We used Factory, Observer, and State patterns, as explained in the 4+1_Views viewDescritpion.txt	5/5
3. **Testing for correctness** – automatically generates test data using hypothesis, usage of mocking/patching, provides code coverage and Python type check (mypy) reports, etc. Notes: We were able to achieve consistent 95-100% unit testing coverage, with a thorough testing process.	5/5

4. **Documentation** – clear, easy to follow documentation, UML diagrams are complete, and notations are correct; explanation of objects interaction is clear and complete. Notes: Our UML diagrams for both the python files and 4+1_Views are detailed and easily readable, and our html docs are thorough.	5/5
5. **Software management** – good usage of management, communication and tracking tools e.g., Gant chart, Kanban board, GitHub Project, Clickup, Discord, Slack, etc. Notes: While our communication could've been better, we were well informed on our tasks and jobs, through a group text, and we used Github to manage and create our project. Having issues and tags for each project could've aided in security and efficiency.	3/5
6. **Teamwork** – clear division of labor and progress tracking; helping each other, etc. Notes: Our ability to work together was well I think though dividing the work and understanding what was needed when could use improvement. However, we were all accountable, and able to pick up tasks whenever needed.	5/5
7. **Project requirements and execution** -- clearly stated functional and technical requirements, project adequately challenging for sophomore-junior students; project demo was clear and concise, etc. Notes: Our project was functional and implemented well. We showed understanding of the lessons given throughout the semester and were able to demonstrate that understanding in our project.	5/5
8. **Team presentation** -- all members participated in presentation, used the visual and oral presentation techniques and tools to engage audience, etc. Notes: Our presentation distributed tasks between us, for us to explain our side of the tasks, between the ai, logic, testing and more, and I feel that we all covered our bases during the presentation, as we reviewed prior. I had	4/5

prepared points on the game logic and functions, that was explained to be unneeded, but I think we gave a thorough and in-depth explanation as a team.	
9. Use 4+1 Views to explain the design to the audience. Notes: Our 4+1 Views were in depth and during the presentation we were able to show the initial ideas behind what we eventually implemented and were able to deliver. The uml diagram was well thought out, and able to communicate the flow of our program.	5/5
10. **BONUS: Above and beyond** – Team went beyond the above list e.g., great User Interface, use of Database, real-world application, client delight and interaction, CI/CD, deployment, etc. Notes: We took extra time to implement both an API and game app, as requested in the assignment specs. Our UI feels clear, and our functionality is effective, despite the limitations of GPT prompts.	4 /10
Total Score Note: Max score can be 55 due to 10 BONUS points.	46/45