# Final Project: Whisky Tango Connect4

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Project Overview {What is the purpose and nature of the project.}

Our team will work hours, days, even minutes to build a robust, solid Connect4 game using GUI and networking. We will accomplish all the basic functionalities of the Connect4 game, but we also want to implement scalable multiplayer/multicolor Connect4 along with advanced graphics.

Project Team {Describe the team members and the roles and responsibilities they will have.}

Gautam Kapoor – Calls dibs on making stack functions, but in reality will most likely slack off. Primary lead for networking and debugging.

Jason Gu – Pretty much done with school, but his main focus is on game logic and GUI.

Nikhil Vytla – Loves gaming, project lead, will focus on game mechanics, beta testing, and JUnit testing.

Challenges {What do you foresee as potential problems that may affect your project?}

We will run into difficulties integrating game logic with game graphics. In addition, implementing the networking function may pose a problem because we have minimal experience with it, but we aim to research and ask questions where necessary. One final area where we may need guidance is in implementing multiplayer (more than 2 player) Connect4, notably issues with resource allocation, connectivity, and memory.

# Major Tasks and Schedule {Create a task plan that describes what needs to be done to accomplish your objective. Establish a timeline keeping in mind that you must design, develop and test before the final week of deployment. During that week, you will be giving your promotional presentation on the software.}

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| Task | When | Responsible |
| Game Specifications   * Who, What, Where, When, Why, How? * Using Google Doc to keep track of range of game.   We want to make sure it’s scalable but also feasible within the timeline. | Week 1 | All members |
| Game Design (Gridworld, Graphics, GUI)   * Translating Connect4 to Gridworld by customizing each grid look and animations for win sequence, loss sequence, and coin drop into each grid. * Possibly implement recursive 2D array. | Week 2,3 | **Jason** and **Nikhil** |
| Game Logic (Mechanics, Rules)   * Implement game rules using switch case/nested if-statements. | Week 2, 3 | **Jason** and **Nikhil** |
| Networking (First with 2 players, then with multiple if possible)   * Figure this out either demoing safeTrade, but most likely researching outside. | Week 3, 4 | **Gautam** and **Jason** |
| Beta Testing and JUnit Testing  Complete JUnit Testing for each class. Debugging included here. | Week 4 | Nikhil, Gautam, and Jason |
| Debugging | Week 4 | **Gautam** |
| Optimizing | Week 4, 5 | **Nikhil** |
| Final Presentation | Week 5 | All members |