

A Report on GAME HACKATHON 2024
Titled
“GameGen: Conquer Algorithmic Challenges in Gaming using Java”

Report Made by

SPARTANS

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ISE-2 (DAA and JAVA)

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Group Member Description along with Lates Photo

Group member Name	Description of the person (Tell about yourself which best describes you as a person and as professional)
Uday Chavan	Interested in team management, web development technology, and exploring new fields with enthusiasm for technology.
Basil Eldho	Interested in web development and cyber security and explore latest technologies in software and cybersecurity developments.
Rutik Magade	Tech Enthusiast , budding network engineer ,keen learner ,interactive ,team player ,possess the quality of team leader
Sanket Prabhu	Interested in exploring new technologies and mastering it , team player and great at collaborating with a team including people with diverse background.

Group Photo with Name of the group.
(kindly take group photo and upload with name of the group)



TEAM “SPARTANS”

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1. Description of Game and Motivation

i. Description of Game –

The Connect 4 game is a classic board game where two players take turns dropping colored discs into a grid. The objective is to connect four of one's own discs horizontally, vertically, or diagonally before the opponent. This digital version of Connect 4 offers a user-friendly interface with adjustable difficulty levels, providing an engaging experience for players of all ages.

ii. Motivation –

The inspiration behind developing this Connect 4 game was to recreate a beloved childhood game in a digital format that is easily accessible to everyone. By combining traditional gameplay with modern technology, we aimed to provide an enjoyable and interactive experience for users. Additionally, the project served as an opportunity to delve deeper into GUI development, algorithm implementation, and user experience design, enriching our technical skill set while delivering a fun and engaging game for players.

2. Tools used (Both frontend and Backend)

Java: The programming language used to develop the game.

Swing: Java's GUI toolkit used for creating the user interface.

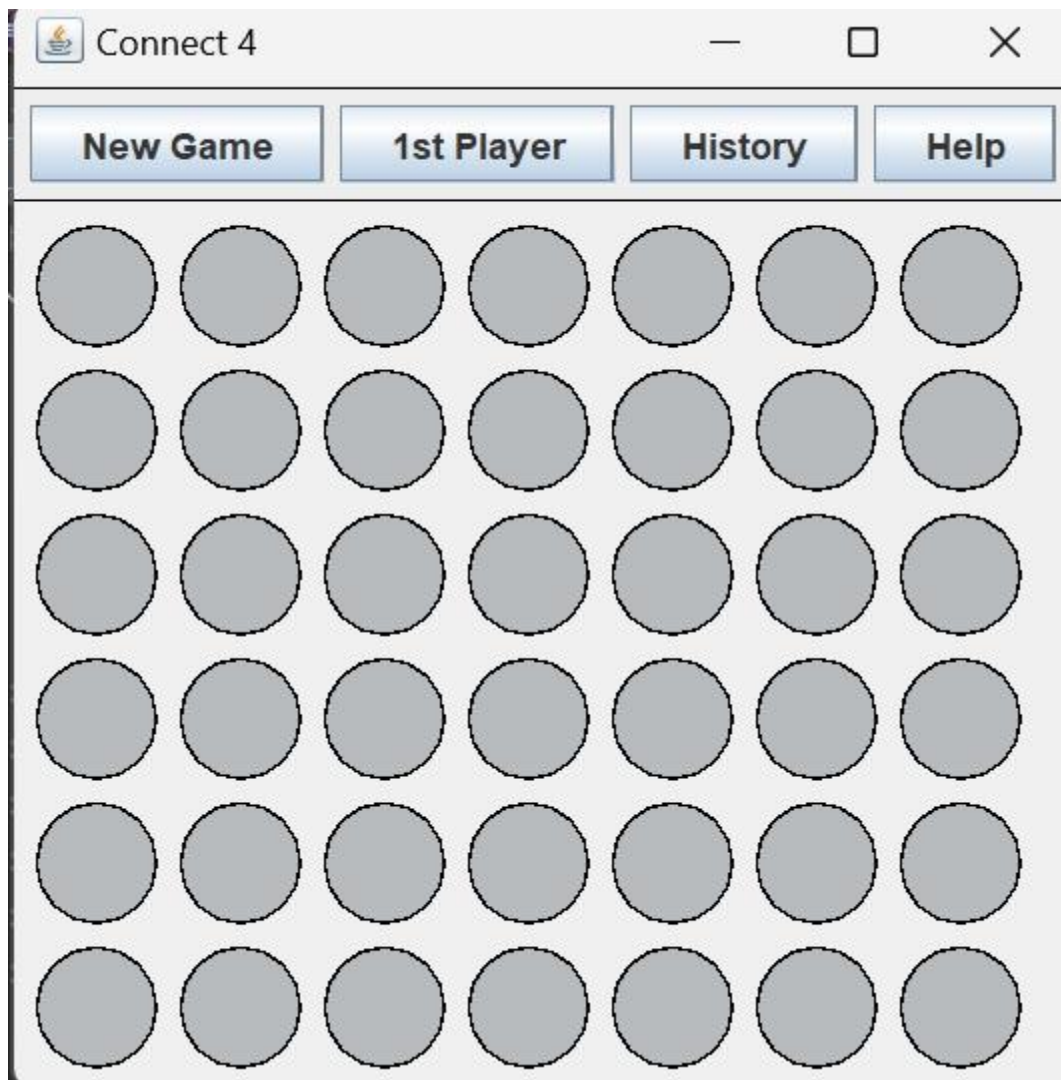
JSON: For saving and loading game states.

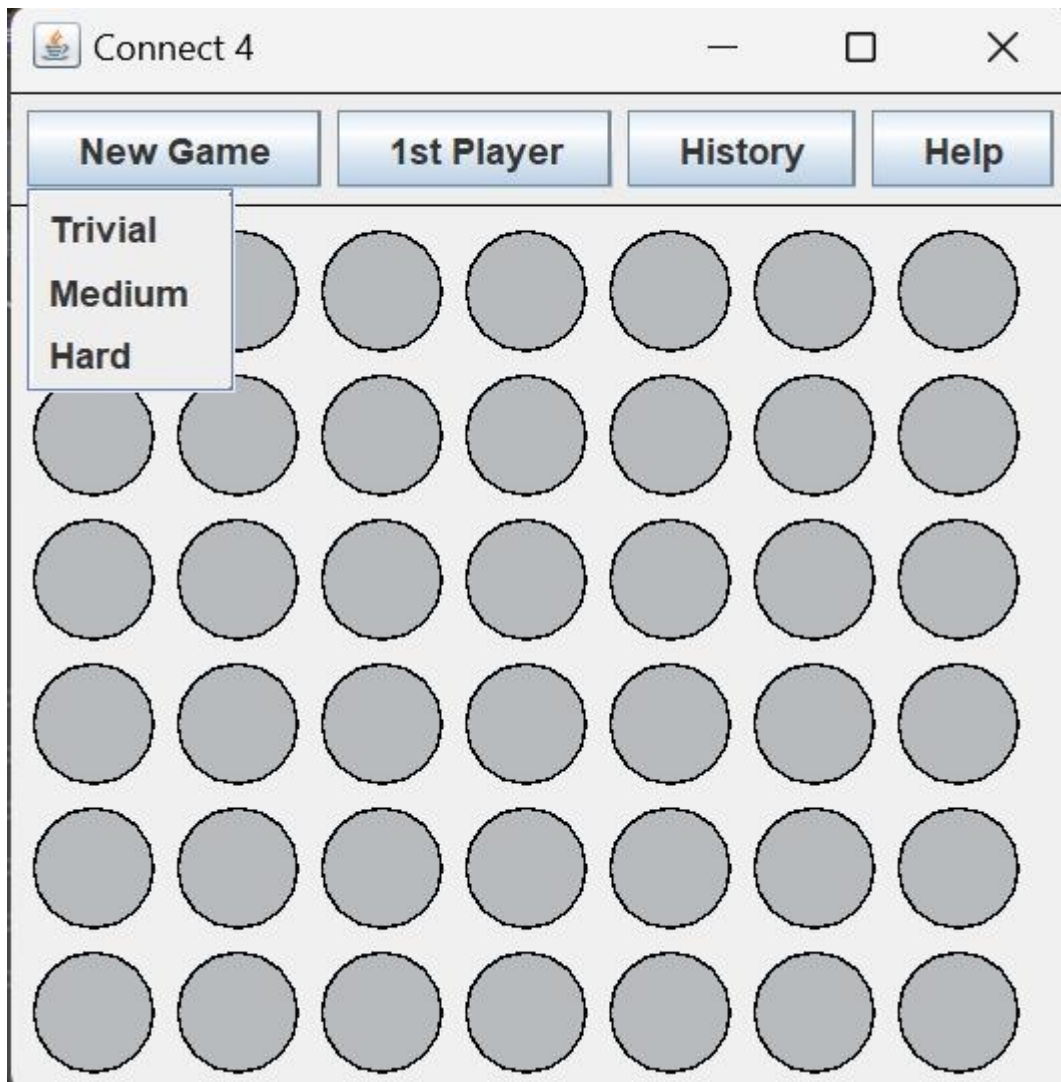
Git: Version control system for tracking changes and collaboration.

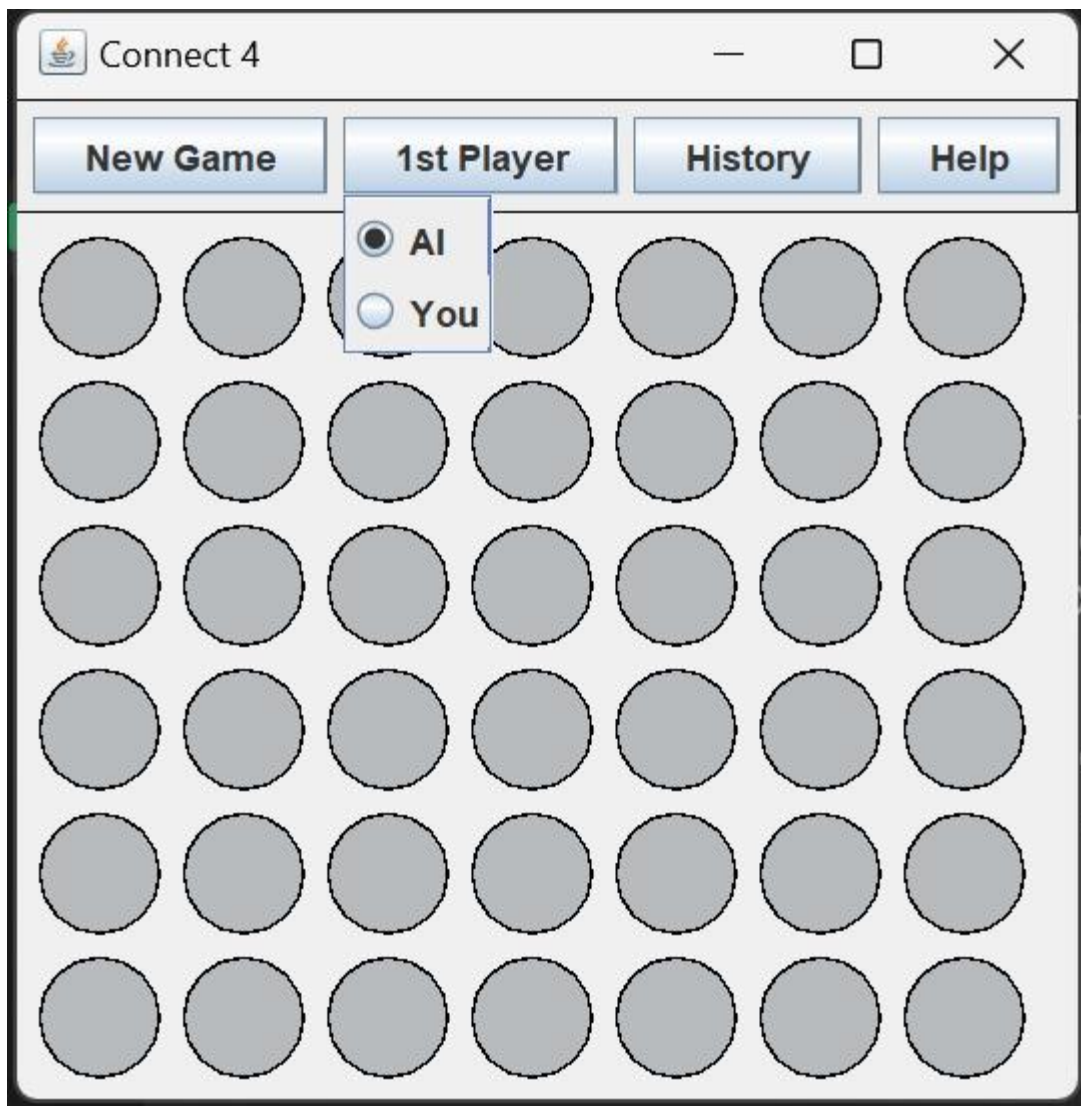
3. Detailed Innovation description

This Connect 4 game features adjustable AI difficulty levels using the Minimax algorithm, allowing players to challenge themselves at different skill levels. It also offers a game history feature, enabling players to save and replay their matches. Developed with Java's Swing framework, the game provides a user-friendly interface with customizable colors and layout. It combines classic gameplay with interactive elements to offer an engaging and personalized gaming experience.

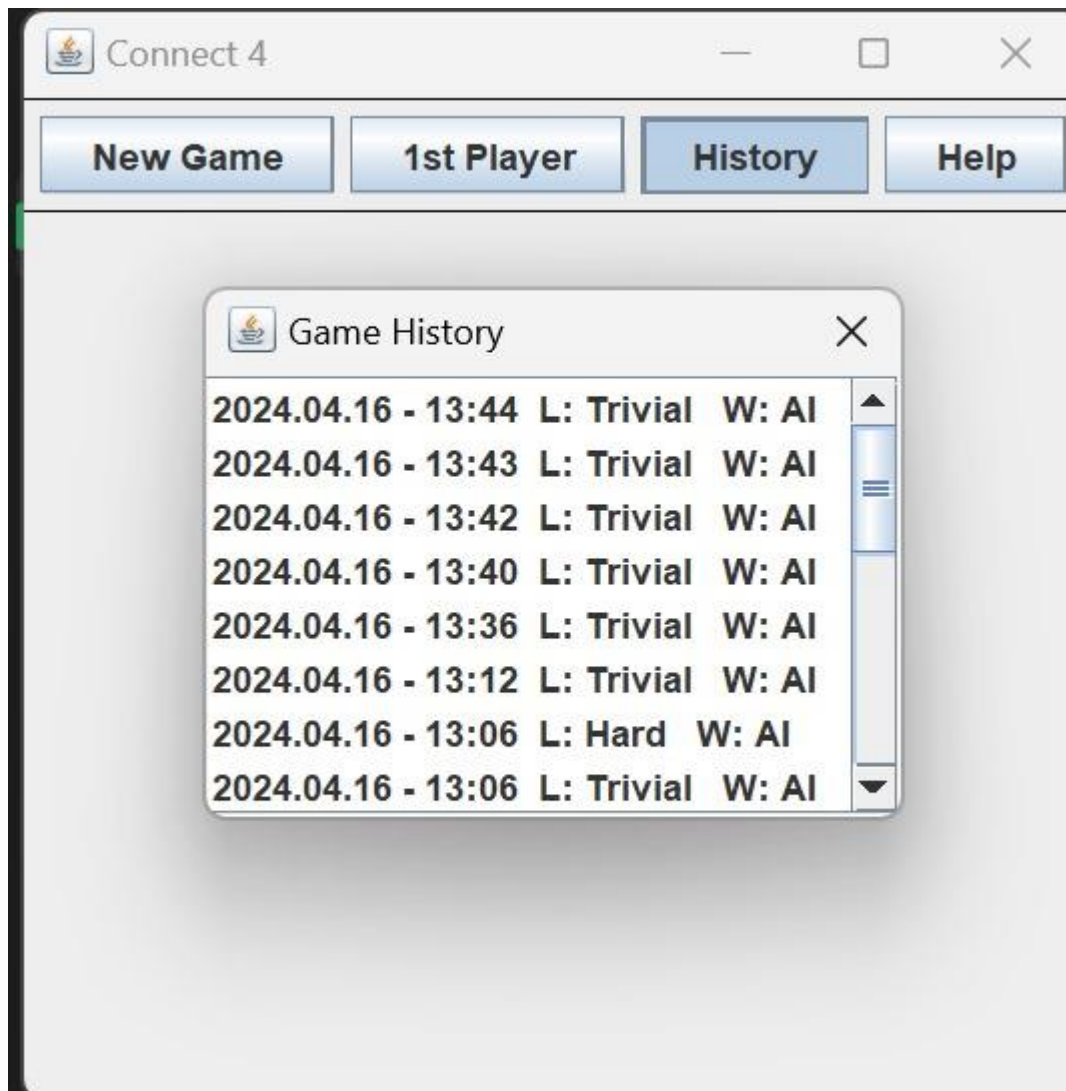
4. Screenshots











5. References

<https://colorhunt.co/> - For UI colours

<https://google.com> – Information regarding Swing and Panels.