Project Iteration 2:

Issue 1: Repository access and branch protection.

Solution: Moved the SnakeGame project to a GitHub organization with a private repository, ensuring only authorized people have access to the code. Additionally, created a "develop" branch for new features and bug fixes, and added branch protection rules to the "main" branch, preventing direct pushes and enforcing pull requests with code reviews. This allows for the security of the project to be enhanced and allows for better development in the future.

https://github.com/SnakeGameOrg/snakegame/tree/main

https://github.com/SnakeGameOrg/snakegame/tree/develop

Issue 2: Preventing buffer overflow in user input handling.

Solution: Implemented input handling for the snake's movement using only arrow keys and WASD, which eliminates the risk of buffer overflow and ensures the input is processed securing while playing the game. It restricts input to a limited set of keys and not accepting any other random set of inputs, preventing potential security vulnerabilities and maintain better control over the functionality of the game.

https://github.com/SnakeGameOrg/snakegame/commit/a917252abd6b17d142d97fa628e709a7d160a60a

Issue 3: Improved Logging and Error Handling.

Solution: I added messages that show up on the console of the IDE when the snake eats food, runs into a wall, or runs into itself. This helps developers work on the game, find and fix problems more easily, making the game safer and work better for people who play it or test it. The messages give enough information allowing the people working on the game to figure out what may not be functioning correctly and fix it faster, making the game more secure overall.

https://github.com/SnakeGameOrg/snakegame/commit/09a611b5265e7f88c1c50801ebafb82996e5863b