Copycat Simon's Symphony

Repeat the Beat, Master the Treat!

Goals :

Goal #1: Introducing a very well-documented process for the project				
Specific	**Measurable**	**Achievable**	**Relevant**	**Timed**
Develop comprehensive project documentation,	Complete and review all project documentation to ensure clarity and accuracy.	Allocate sufficient time for thorough documentation and review processes.	Provide clear instructions, guidelines, and insights for project development and future reference.	Achieve documentation MVP by the end of Day 1 (Sprint 1) and the final version by Day 5 (Sprint 5).

Goal #2: Develop a two-player game called "Copycat Simon's Symphony," where the user competes against the computer by repeating increasingly complex button sequences to achieve the highest score				
Specific	**Measurable**	**Achievable**	**Relevant**	**Timed**
Implement a game where two players take turns repeating and extending button sequences generated by the computer.	Track and display the score for each player based on the number of successful rounds completed.	Implement game mechanics that allow players to compete against the computer and keep track of their scores.	Provide an engaging and competitive gaming experience for users.	Achieve two-player game MVP implementation by the end of Day 2 (Sprint 2) and the final product by Day 4 (Sprint 4).

Goal #3: Implement three difficulty levels (Easy, Medium, Hard), with varying button configurations and flash speeds, to accommodate players of different skill levels and provide an increasingly challenging experience				
Specific	**Measurable**	**Achievable**	**Relevant**	**Timed**
Develop three distinct difficulty levels with specific button configurations and flash speeds.	Ensure players can select and experience different difficulty levels, observing changes in button configurations and flash speeds.	Implement logic and game mechanics that adjust the gameplay based on the selected difficulty level.	Provide a tailored gameplay experience for players of different skill levels.	Complete the difficulty levels implementation by the end of Day 3 (Sprint 3).

Goal #4: Create a high scoreboard that records and displays the top 5 scores achieved by players, adding a competitive aspect to the game and encouraging replayability				
Specific	**Measurable**	**Achievable**	**Relevant**	**Timed**
Implement a scoreboard that stores and displays the top 5 scores achieved by players.	Update the scoreboard after each completed game session, showing the highest scores achieved.	Develop a data storage mechanism and display functionality to track and present the top scores.	Enhance the game's replayability and create a competitive element for players to strive for higher scores.	Implement the scoreboard functionality by the end of Day 3 (Sprint 3).

Goal #5: Follow a transparent testing process with all primary testing documentation				
Specific	**Measurable**	**Achievable**	**Relevant**	**Timed**
Create a testing plan outlining the testing approach, methodologies, and test cases to be executed.	Perform comprehensive testing, record test results, and address any identified bugs or issues.	Allocate time for testing activities, including manual testing and bug fixing.	Ensure the game is thoroughly tested for functionality, usability, and compatibility across different devices and browsers.	Complete the testing process and documentation by the end of Day 4 (Sprint 4).

Goal #6: Prepare for the final presentation and future enhancements				
Specific	**Measurable**	**Achievable**	**Relevant**	**Timed**
Prepare for the final presentation by showcasing the game's features, development process, and achievements.	Conduct a comprehensive game demo during the presentation, addressing questions and feedback from the audience.	Review and revise project documentation for clarity and accuracy in preparation for the presentation.	Ensure the project is well-presented and potential future improvements are discussed.	Complete the final presentation preparation and demo during Sprint 5 (Day 5).

Sprints key aspects:

Sprint 1:

Core functionality: Implement the fundamental game mechanics, such as generating and displaying sequences, capturing player input, and providing feedback.
Basic testing: Perform initial testing to ensure the core functionality works correctly.

Sprint 2:

User experience enhancements: Improve the game's user interface, visuals, and audio to enhance player engagement.
Additional features: Implement secondary features, such as sound effects, difficulty levels, or visual cues, to enrich the gameplay experience.
Preliminary testing: Conduct testing to identify and address any bugs or issues.

Sprint 3:

Refinement and polish: Continuously refine and polish the game based on feedback and testing from previous sprints.
Usability improvements: Address any identified usability or functionality improvements to enhance the player experience.
User testing: Conduct user testing sessions to gather feedback, identify areas for improvement, and make necessary adjustments.

Sprint 4:

Bug fixing and optimization: Focus on resolving any remaining bugs or issues to ensure a stable and smooth gameplay experience.
Comprehensive testing: Conduct thorough testing to address any outstanding issues and ensure the game performs well across different devices and browsers.

Sprint 5:

Review: Review the completed project, ensuring it meets the project goals and requirements.
Prepare a presentation: showcasing the project's features, challenges, and achievements.
Potential future improvements: enhancements that could be made to the game.

Sprints tasks:

Sprint 1 (Day 1)	Sprint 2 (Day 2)	Sprint 3 (Day 3)	Sprint 4 (Day 4)	Sprint 5 (Day 5)
Conduct concept briefing and develop a project brief document. **Goal #1**	Develop the logic for capturing and validating player input against the generated sequences. **MVP**	Refine the user interface, ensuring it is intuitive, responsive, and visually appealing. **Final Product Additional Feature**	Conduct comprehensive testing to ensure functionality, usability, and compatibility across different devices and browsers. **Goal #5**	Practice and prepare for the final presentation, showcasing the game's features, development process, and achievements. **Goal #6**
Create wireframes and a dataflow diagram to visualize the game's interface and flow. **Goal #1**	Provide visual and audio feedback to the player, indicating correct or incorrect button presses. **MVP**	Implement the high scoreboard feature to record and display the top 5 scores achieved by players. **Goal #4**	Perform bug fixing and address any remaining issues or bugs identified during testing. **Goal #5**	Conduct a comprehensive game demo during the presentation, highlighting key aspects. **Goal #6**
Set up the project structure, initialize the Git repository, and create a README file. **Goal #1**	Enhance the game's user interface, including visual enhancements, animations, and styling. **Final Product Additional Feature**	Perform testing and bug fixing to address issues related to the implemented features. **Goal #5**	Optimize the codebase, ensuring readability, efficiency, and adherence to coding standards. **Final Product**	Address any questions or feedback from the audience and discuss potential future improvements. **Goal #6**
Implement the basic HTML structure for the game layout. **MVP**	Implement additional features, such as sound effects for button presses. **Final Product Additional Feature**	Finalize project documentation, including the README file, concept brief, and testing documentation. **Goal #1**	Finalize the project, and review documentation for clarity and accuracy. **Goal #1**	
Style the game elements using CSS, considering responsiveness. **MVP**	Introduce three difficulty levels (Easy, Medium, Hard) with varying configurations and flash speeds. **Goal #3**	Review and revise project documentation for clarity and accuracy. **Goal #1**		
Set up the initial game logic to generate and display the button sequences. **MVP**				