

Application Name: Nick's 9dt	Author: Nicolas Mewhirter
Software Type: React Web App (JavaScript)	Testing Scope: Entire Application
Test Tools: Jest (JS Test Runner)	Testing Objectives: To verify the functionality and correctness of the application.
<p>Testing Phases:</p> <p>Phase 1: Unit Testing - Business Logic</p> <ul style="list-style-type: none"> • Summary: I will write unit tests to measure the correctness of the business logic of the application, ie. the various individual helper functions that the program utilizes. These tests should exercise the code through both common and edge case scenarios. • Functions to Test: <ul style="list-style-type: none"> ○ initGame() ○ drawTile() ○ addMove() ○ initBotsMove() ○ fetchFromEndpoint() ○ buildMoveSet() ○ updateBoard() ○ checkForWinner() ○ checkForDraw() ○ restartGame() <p>Phase 2: Integration Testing - Business Logic</p> <ul style="list-style-type: none"> • Summary: I will write tests to measure the correctness of the business logic, focusing on verifying that the various helper functions work together as a whole. • Functions to Test: <ul style="list-style-type: none"> ○ Same as above <p>Phase 3: UI Testing - Front-End</p> <ul style="list-style-type: none"> • Summary: I will write tests that render and verify the correctness of the user-interface under different program states (such as the initial state, the game-over state, etc). • Functions to Test: <ul style="list-style-type: none"> ○ render() <p>Phase 4: End-to-End Testing - Entire Application</p> <ul style="list-style-type: none"> • Summary: I will write tests that verify that the user-interface changes appropriately as the business logic is executed. Tests will begin by rendering the application in its initial state, and then simulating user actions in order to execute business logic. Correctness will be tested by verifying that the front-end updates and renders appropriately. <p>Phase 5: Beta Testing - Entire Application</p> <ul style="list-style-type: none"> • Summary: Ideally, I would contact potential end-users who have had no involvement with the development up to this point to perform usability tests on the application. They will use the application and report any bugs, design flaws, and/or comments that they have. 	