# Testing Reports

## Test Case Working Build Script 1

| Test Case #: 1 | Test Case Name: Working Build Script | Page: 1 of 1 |
|---|---|---|
| System: Build | | Subsystem: Build Script |
| Design Date: 2/21/2025 | | Executed by: 3/6/2025 |
| Designed by: Xavier | | Execution by: Xavier |
| Short Description: Does the build script run successfully? | | |

Pre Conditions:
- Risk-board-game repo was cloned successfully onto a computer with dotnet 8.0

| Step | Action | Expected System Response | Pass/ Fail | Comment |
|---|---|---|---|---|
| 1 | Run ./build.sh script | "Build succeeded." | P | A simple one-step test |
| 2 | | | | |
| 3 | | | | |
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Post Conditions:
- Build Success

## Test Case Working Run Script 1

| Test Case #: 2 | Test Case Name: Working Run Script | Page: 1 of 1 |
|---|---|---|
| System: Build | Subsystem: Run | |
| Design Date: 2/21/2025 | Executed by: 3/6/25 | |
| Designed by: Xavier | Execution by: Xavier | |
| Short Description: Does the run script run successfully? | | |

Pre Conditions:
- Risk-board-game repo was cloned successfully onto a computer with dotnet 8.0
- Build Script was run successfully

| Step | Action | Expected System Response | Pass/ Fail | Comment |
|---|---|---|---|---|
| 1 | Run ./run.sh script | "Welcome to Risk!" | P | A simple one-step test |
| 2 | | | | |
| 3 | | | | |
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Post Conditions:
- User is welcomed to the game of Risk.

## Test Case Bot Game1

| Test Case #: 3 | Test Case Name: Bot Game1 | | Page: 1 of 2 |
|---|---|---|---|
| System: Game | | Subsystem: Full Bot Game | |
| Design Date: 2/21/2025 | | Executed by: | |
| Designed by: Xavier | | Execution by: | |
| Short Description: User will execute a basic game of all bots and ensure it completes without failure. | | | |

Pre Conditions:
-   Game was built and run successfully

| Step | Action | Expected System Response | Pass/ Fail | Comment |
|---|---|---|---|---|
| 1 | Respond to the Player count prompt with "2". | "Enter Player 1's name." | P | |
| 2 | Enter player 1 as "a" | "Is player 1 a human (0) or bot (1)?" | P | |
| 3 | Enter player 1 as a bot with a 1 | "Enter Player 2's name." | P | |
| 4 | Enter player 2 as "b" | "Is player 2 a human (0) or bot (1)?" | P | |
| 5 | Enter player 2 as a bot with a 1 | "Each player will start with 35 armies | P | |
| 6 | Confirm game takes place automatically between 2 bot players | "Players: a b" | F | I got the expected response afterward, but post conditions were not resolved |
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Post Conditions:
- One of the bots has won the game.
- No exceptions have occurred

## Test Case Attack Success 1

| Test Case #: 4 | Test Case Name: Attack Success 1 | Page: 1 of 1 |
|---|---|---|
| System: Game | | Subsystem: Attacking |
| Design Date: 2/21/2025 | | Executed by: 3/7/25 |
| Designed by: Dale Morris | | Execution by: Xavier B |
| Short Description: When a player launches an attack on a territory that neighbors one of their own and they have at least one available attacking army, the attack should work. | | |

Pre Conditions:
-    Player owns at least one territory
-    Player launches an attack
-    Player selects to attack from a territory they own that neighbors the territory they are attacking
-    Player has at least one available attacking army in the territory they are attacking from

| Step | Action | Expected System Response | Pass/Fail | Comment |
|---|---|---|---|---|
| 1 | Initialize new game with 2 players where player 1 is human, owns Iceland, and doesn't own Greeland | Game is created and starts logging | P | |
| 2 | Distribute all of player 1's armies to Iceland | Iceland receives all of player 1's distributable armies | P | |
| 3 | Launch attack with player 1 from Iceland to Greenland with 3 attacking armies | Attack is fulfilled, and players 1 and 2 lose armies accordingly | F | Tested with a near identical scenario (swapping the regions) "The given key 'Eastern Us' was not present in the dictionary. at System.Collections.Generic.Dictionary`2.get_Item( TKey key)" |

Post Conditions:
- Attack is logged
- Players 1 and 2 lose armies according to attack rules
- If player 2 runs out of armies in Greenland, player 1 gains ownership of Greenland

## Test Case Attack Failure 1

| Test Case #: 5 | Test Case Name: Attack Failure 1 | Page: 1 of 1 |
|---|---|---|
| System: Game | Subsystem: Attacking | |
| Design Date: 2/21/2025 | Executed by: 3/7/25 | |
| Designed by: Dale Morris | Execution by: Xavier B | |
| Short Description: When a player launches an attack from a territory they don't own, the attack should fail. | | |

Pre Conditions:
- Player launches an attack
- Player selects to attack from a territory they do not own

| Step | Action | Expected System Response | Pass/ Fail | Comment |
|---|---|---|---|---|
| 1 | Initialize new game with 2 players where player 1 is human and doesn't own Iceland | Game is created and starts logging | P | |
| 2 | Evenly distribute player 1's armies | Player 1's territories receive an equal number of armies | P | |
| 3 | Launch attack with player 1 from Iceland on Greenland with 1 attacking army | Attack does not occur, Iceland and Greenland are unaffected, error is logged | F | I was allowed to attack from a non-owned territory |

Post Conditions:
- Attack error is logged
- The armies in Iceland and Greenland are unaffected

## Test Case Attack Failure 2

| Test Case #: 6 | Test Case Name: Attack Failure 2 | Page: 1 of 1 |
|---|---|---|
| System: Game | Subsystem: Attacking | |
| Design Date: 2/21/2025 | Executed by: 3/7/25 | |
| Designed by: Dale Morris | Execution by: Xavier B | |
| Short Description: When a player attacks a territory they own, the attack should fail | | |

Pre Conditions:
- Player launches an attack
- Player selects to attack a territory they own

| Step | Action | Expected System Response | Pass/ Fail | Comment |
|---|---|---|---|---|
| 1 | Initialize new game with 2 players where player 1 is human and owns Greenland | Game is created and starts logging | P | |
| 2 | Evenly distribute player 1's armies | Player 1's territories receive an equal number of armies | P | |
| 3 | Launch attack with player 1 from Iceland to Greenland with 1 attacking armies | Attack does not occur, Iceland and Greenland are unaffected, error is logged | F | Attacking territory didn't properly lose armies |

Post Conditions:
- Attack error is logged
- The armies in Iceland and Greenland are unaffected

## Test Case Fortify Success 1

| Test Case #: 7 | Test Case Name: Fortify Success 1 | Page: 1 of 1 |
|---|---|---|
| System: Game | Subsystem: Fortifying | |
| Design Date: 2/21/2025 | Executed by: 3/7/25 | |
| Designed by: Dale Morris | Execution by: Xavier B | |
| Short Description: When a player fortifies from a territory they own to another territory they own, the fortification should succeed | | |

Pre Conditions:
- Player launches fortification
- Player selects to fortify from a territory they own
- Player selects to fortify to a territory they own that is connected the territory they are fortifying from

| Step | Action | Expected System Response | Pass/ Fail | Comment |
|---|---|---|---|---|
| 1 | Initialize new game with 2 players where player 1 is human and owns Iceland and Greenland | Game is created and starts logging | P | |
| 2 | Distribute all of player 1's armies to Iceland | Iceland receives all of player 1's distributable armies | P | |
| 3 | Opt not to attack with player 1 | Player is prompted to fortify | P | |
| 4 | Launch a fortification with player 1 from Iceland to Greenland with 3 armies | Greenland loses 3 armies and Iceland gains 3 armies | P | Fortification worked, although I don't think its supposed to let you fortify with 1 army |

Post Conditions:
- Fortification is logged
- Iceland loses 3 armies and Greenland gains 3 armies

## Test Case Fortify Failure 1

| Test Case #: 8 | Test Case Name: Fortify Failure 1 | Page: 1 of 1 |
|---|---|---|
| System: Game | Subsystem: Fortifying | |
| Design Date: 2/21/2025 | Executed by: 3/7/25 | |
| Designed by: Dale Morris | Execution by: Xavier B | |
| Short Description: When a player fortifies to a territory they do not own, the fortification should fail | | |

Pre Conditions:
- Player launches fortification
- Player selects to fortify to a territory they do not own

| Step | Action | Expected System Response | Pass/ Fail | Comment |
|---|---|---|---|---|
| 1 | Initialize new game with 2 players where player 1 is human and owns Iceland and not Greenland | Game is created and starts logging | P | |
| 2 | Evenly distribute all of player 1's armies | Player 1's territories receive an equal number of armies | P | |
| 3 | Opt not to attack with player 1 | Player is prompted to fortify | P | |
| 4 | Launch a fortification with player 1 from Iceland to Greenland with 3 armies | Error is logged | P | Successfully tells players they can't move to the new territory |

Post Conditions:
- Fortification error is logged
- Greenland and Iceland are unaffected

## Test Case Fortify Failure 2

| Test Case #: 9 | Test Case Name: Fortify Failure 2 | Page: 1 of 1 |
|---|---|---|
| System: Game | Subsystem: Fortifying | |
| Design Date: 2/21/2025 | Executed by: 3/7/25 | |
| Designed by: Dale Morris | Execution by: Xavier B | |
| Short Description: When a player fortifies from a territory they do not own, the fortification should fail | | |

Pre Conditions:
- Player launches fortification
- Player selects to fortify from a territory they do not own

| Step | Action | Expected System Response | Pass/ Fail | Comment |
|---|---|---|---|---|
| 1 | Initialize new game with 2 players where player 1 is human and owns Greenland and not Iceland | Game is created and starts logging | P | |
| 2 | Evenly distribute all of player 1's armies | Player 1's territories receive an equal number of armies | P | |
| 3 | Opt not to attack with player 1 | Player is prompted to fortify | P | |
| 4 | Launch a fortification with player 1 from Iceland to Greenland with 3 armies | Error is logged | P | Doesn't allow erroneous fortification and gracefully catches bad entry |

Post Conditions:
- Fortification error is logged
- Greenland and Iceland are unaffected

# Test Case Valid User

| Test Case #: 10 | Test Case Name: Authorizing User | Page: 1 of 1 |
|---|---|---|
| System: Website | Subsystem: Bot Submission Process | |
| Design Date: 2/21/2025 | Executed by: | |
| Designed by: Louis Wiley | Execution by: | |
| Short Description: When a User | | |

Pre Conditions:
- User has an account but has not logged in
- Website Ran and built

| Step | Action | Expected System Response | Pass/ Fail | Comment |
|---|---|---|---|---|
| 1 | Go to website | Presented with Home page | F | Pre conditions not met |
| 2 | Visit Bot Submission page | Presented with error screen (Not Authorized | | |
| 3 | Visit Bot Finder page | Presented with error screen (Not Authorized) | | |
| 4 | Click log in button | Presented with Login page | | |
| 5 | Click log into Google account | Redirected to Google Signup | | |
| 6 | Visit Bot Submission page | Check Post Condition 1 | | |
| 7 | Visit Bot Finder page | Check Post Condition 1 | | |
| | | | | |

Post Conditions:
- User can view authorized page

## Test Case Valid Bot Data

| Test Case #: 11 | Test Case Name: Valid Bot Submisson | Page: 1 of 1 |
|---|---|---|
| System: Website | | Subsystem: Bot Submission |
| Design Date: 2/21/2025 | | Executed by: |
| Designed by: Louis Wiley | | Execution by: |
| Short Description: Ensure User can not submit invalid bot file of malicious code. | | |

Pre Conditions:
- User has an account and has signed in
- Website Ran and built

| Step | Action | Expected System Response | Pass/ Fail | Comment |
|---|---|---|---|---|
| 1 | User goes website | Presented with Home page | F | Pre conditions not met |
| 2 | User visits Bot Submission page | Presented with Bot Submission Page | | |
| 3 | User clicks Choose Files Button | User is brought to their OS file system | | |
| 4 | User submits a file of 3GB or larger | User can't submit file, error displayed on the screen to show file is too big | | |
| 5 | User submits a file of the incorrect file type. | User can't submit file, error displayed on screen to show file mismatch | | |
| 6 | User submits a file of the correct type and size | User can submit the file | | |
| 7 | Click Submit | Check Post Conditions 1 | | |

Post Conditions:
- User has submitted a valid bot in the database

## Test Case Website Build

| Test Case #: 12 | Test Case Name: Website Build | | Page: 1 of 1 |
|---|---|---|---|
| System: Website | | Subsystem: Bot Submission | |
| Design Date: 3/7/2025 | | Executed by: 3/7/25 | |
| Designed by: Xavier Beatrice | | Execution by: Xavier Beatrice | |
| Short Description: Does the build script run successfully? | | | |

Pre Conditions:
- RISK-WEBSITE repo was cloned successfully onto a computer with dotnet 8.0

| Step | Action | Expected System Response | Pass/ Fail | Comment |
|---|---|---|---|---|
| 1 | Run ./build.sh script | "Build succeeded." | F | A simple one-step test, doesn't run on .NET 8.0 |
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Post Conditions:
- Build Success

## Test Case Website Build

| Test Case #: 13 | Test Case Name: Website Build | Page: 1 of 1 |
|---|---|---|
| System: Website | Subsystem: Bot Submission | |
| Design Date: 3/7/2025 | Executed by: 3/7/25 | |
| Designed by: Xavier Beatrice | Execution by: Xavier Beatrice | |
| Short Description: Does the run script run successfully? | | |

Pre Conditions:
- RISK-WEBSITE repo was cloned successfully onto a computer with dotnet 8.0
- Build script was run

| Step | Action | Expected System Response | Pass/ Fail | Comment |
|---|---|---|---|---|
| 1 | Run ./run.sh script | Website is accessible on localhost | F | A simple one-step test, Failure, didn't build correctly |
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Post Conditions:
- User can access website