

Initial Test Case Identification (November 16)

1. Test that the initial state is loaded correctly
 2. Test unloading the Cat container
 3. Test loading new containers onto the ship
 4. Test attempting to unload a non-existent container
 5. Test loading with an empty list of containers
 6. Test unloading with an empty list of target containers
 7. Test that empty operations don't add unnecessary time
 8. Test balancing with just one container
 9. Test when no valid moves are possible for balancing
 10. Test all ship cases from Keough
 11. Save a ship configuration and verify its correctness.
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Test Execution and Results (November 23)

1. Success
 2. Success
 3. Success
 4. Fail; adjustments made accordingly
 5. Success
 6. Success
 7. Success
 8. Success
 9. Success
 10. Success
 11. Success
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Follow-Up Tests (December 8)

Additional tests were performed to verify performance and stress-test the system:

Stress Testing

1. Load a ship with 90 containers of varying weights: Passed, with time under 1 min
2. Unload a ship with 90 containers of varying weights: Passed, with time under 1 min
3. Balance a ship with 90 containers of varying weights: Passed, with time under 10 min

UI Testing

1. Verify layout and functionality on different screen sizes: Passed, responsive design worked effectively.