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| Program/shader creation | | | | |
| Case | Expected Outcome | Actual Outcome | Solution | Notes |
| Shaders are created and attached to program | No console errors should appear | As expected | N/A |  |

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| FPS | | | | |
| Case | Expected Outcome | Actual Outcome | Solution | Notes |
| Player starts game | Game should run at 60 FPS | As expected | N/A |  |
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| WebGL rendering | | | | |
| Case | Expected Outcome | Actual Outcome | Solution | Notes |
| Game is running | No WebGL offscreen errors should appear in console | As expected | N/A |  |
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| PointerLock controls | | | | |
| Case | Expected Outcome | Actual Outcome | Solution | Notes |
| Player starts game, and clicks the screen | Their mouse pointer gets locked | As expected | N/A |  |
| Player presses escape | Mouse gets released from pointerlock | As expected | N/A |  |

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| Player movement | | | | |
| Case | Expected Outcome | Actual Outcome | Solution | Notes |
| When player holds UP arrow key | Player should move forward | As expected | N/A | Perhaps change to W for forward makes more sense |
| When player holds DOWN arrow key | Player should move backwards | As expected | N/A | Perhaps change to S for backward makes more sense |
| Player moves mouse whilst pointer is locked | Players camera should rotate in correct direction | As expected | N/A |  |

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| Object creation | | | | |
| Case | Expected Outcome | Actual Outcome | Solution | Notes |
| Game objects/meshes are created | All objects should have twice the number of indices to vertices | As expected | N/A |  |
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| Audio | | | | |
| Case | Expected Outcome | Actual Outcome | Solution | Notes |
| Game objects/meshes are created | All objects should have twice the number of indices to vertices | As expected | N/A |  |
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| WorldState | | | | |
| Case | Expected Outcome | Actual Outcome | Solution | Notes |
| Game saves every specified amount of time | Player position is saved | As expected | N/A |  |
| Game loads with saved position in storage | If previous position saved, that gets loaded as the current player position | As expected | N/A |  |
| Game loads for first time | If no previously saved position the player position gets set to the original spawn point | As expected | N/A |  |

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| Prospecting | | | | |
| Case | Expected Outcome | Actual Outcome | Solution | Notes |
| Player is in range of rock, and holds P key to prospect | Prospecting bar displays and starts incrementing | As expected | N/A |  |
| Player is prospecting rock and lets go of P key | The prospecting bar disappears and the value is reset | As expected | N/A |  |
| Player not in range of rock and tries to prospect | Nothing should happen | As expected | N/A |  |
| Player fully prospects rock | Prospecting bar should disappear and value resets | As expected | N/A |  |
| Player starts prospecting rock, then moves out of range | Prospecting bar should disappear | Fails |  | Bar doesn’t disappear |

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| Fog | | | | |
| Case | Expected Outcome | Actual Outcome | Solution | Notes |
| An object is far away from the player | Its texture should be completed blended with the sky colour | As expected | N/A |  |

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| Collision | | | | |
| Case | Expected Outcome | Actual Outcome | Solution | Notes |
| Player tries to walk off map | They get pushed back | As expected | N/A |  |
| Player collides with rock | They get pushed back | As expected | N/A |  |
| Player walks over terrain | The users height gets set to nearest terrain vertex height | As expected | Space terrain vertices closer together | Very bumpy with low movement speed |

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| Inventory | | | | |
| Case | Expected Outcome | Actual Outcome | Solution | Notes |
| Player prospects rock | It gets added to their inventory | As expected | N/A |  |
| Player is in range of rock with full inventory | Rock doesn’t get added to their inventory, and “inventory full” message displays | As expected | N/A |  |
| Player goes in range of lander | Player inventory gets emptied | As expected | N/A |  |

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| Hitpoints bar | | | | |
| Case | Expected Outcome | Actual Outcome | Solution | Notes |
| Player collides with rock | Hitpoints decrease by 10, and GUI updates | As expected | N/A |  |
| Player collides with edge of map | Hitpoints stays the same | As expected | N/A |  |
| Player reaches 0 hitpoints | Game over screen |  |  |  |