**Turtle 1 Client Use Cases**

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| --- | --- |
| **Name:** | Start Up |
| **Summary:** | Launch the application for the user. |
| **Version:** | 1.0 |
| **Preconditions:** | 1. System displays Turtle 1 icon |
| **Triggers:** | 1. User selects Turtle 1 icon |
| **Main Success Scenario:** | Application launches. |
| **Alternative Success Scenarios:** | N/A |
| **Postconditions:** | 1. System displays Turn Left Button 2. System displays Turn Right Button 3. System displays Pen Up Button 4. System displays Pen Down Button 5. System displays Distance Text Box 6. System displays Move Button 7. System displays End Button 8. System displays Print Button 9. System displays Close Window Button |
| **Business Rules** | N/A |
| **Notes:** | After the application is launched, the rest of the application buttons and text boxes will displayed. Allowing the user to further interact with the program. |
| **Author:** | Paul Darr |
| **Date:** | 6/7/2018 |

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| --- | --- |
| **Name:** | Turn Left |
| **Summary:** | Turn user |
| **Version:** | 1.0 |
| **Preconditions:** | 1. System Start.  2. System displays Turn Left Button |
| **Triggers:** | 1. User selects Turn Left Button |
| **Main Success Scenario:** | Turn Left is selected |
| **Alternative Success Scenarios:** | N/A |
| **Postconditions:** | 1. System display turn left as selected.  2. Function turn left is called. |
| **Business Rules** | N/A |
| **Notes:** | The system will display turn left as highlighted and the function turn left is called. |
| **Author:** | Paul Darr |
| **Date:** | 6/7/2018 |

|  |  |
| --- | --- |
| **Name:** | Turn Right |
| **Summary:** | Turn user |
| **Version:** | 1.0 |
| **Preconditions:** | 1. System Start.  2. System displays Turn Right Button |
| **Triggers:** | 1. User selects Turn Right Button |
| **Main Success Scenario:** | Turn Right is selected |
| **Alternative Success Scenarios:** | N/A |
| **Postconditions:** | 1. System display turn right as selected.  2. Function right left is called. |
| **Business Rules** | N/A |
| **Notes:** | The system will display turn right as highlighted and the function right left is called. |
| **Author:** | Paul Darr |
| **Date:** | 6/7/2018 |

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| --- | --- |
| **Name:** | Pen Up |
| **Summary:** | Select Pen Up |
| **Version:** | 1.0 |
| **Preconditions:** | 1. System Start.  2. System displays Pen Up button. |
| **Triggers:** | 1. User selects Pen Up button. |
| **Main Success Scenario:** | Pen Up is selected. |
| **Alternative Success Scenarios:** | N/A |
| **Postconditions:** | 1. System displays Pen Up font as grey to indicate selected.  2. Pen Down font is displayed as black.  3. Function Pen Up is called. |
| **Business Rules** | N/A |
| **Notes:** | The system will display Pen Up font as grey and the function Pen Up is called. |
| **Author:** | Paul Darr |
| **Date:** | 6/7/2018 |

|  |  |
| --- | --- |
| **Name:** | Pen Down |
| **Summary:** | Select Pen Down |
| **Version:** | 1.0 |
| **Preconditions:** | 1. System Start.  2. System displays Pen Down button. |
| **Triggers:** | 1. User selects Pen Down button. |
| **Main Success Scenario:** | Pen Up is selected. |
| **Alternative Success Scenarios:** | N/A |
| **Postconditions:** | 1. System displays Pen Down font as grey to indicate selected.  2. Pen Up font is displayed as black.  3. Function Pen Down is called. |
| **Business Rules** | N/A |
| **Notes:** | The system will display Pen Down font as grey and the function Pen Down is called. |
| **Author:** | Paul Darr |
| **Date:** | 6/7/2018 |

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| --- | --- |
| **Name:** | Distance |
| **Summary:** | Enter integers in the Pixel Distance box |
| **Version:** | 1.0 |
| **Preconditions:** | 1. System Start.  2. System displays Pixel Distance |
| **Triggers:** | 1. User enters integers into Pixel Distance field |
| **Main Success Scenario:** | Integers appear in input field |
| **Alternative Success Scenarios:** | N/A |
| **Postconditions:** | 1. Integers are in input field |
| **Business Rules** | N/A |
| **Notes:** | User enters input into Pixel Distance field to be used for  move. |
| **Author:** | Paul Darr |
| **Date:** | 6/7/2018 |

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| --- | --- |
| **Name:** | Move |
| **Summary:** | User moves the turtle by selecting button. |
| **Version:** | 1.0 |
| **Preconditions:** | 1. System Start.  2. System displays Move button.  3. System displays Pixel Distance  4. Integer entered into Pixel Distance field. |
| **Triggers:** | 1. User selects move button. |
| **Main Success Scenario:** | Application moves turtle |
| **Alternative Success Scenarios:** | Application gives error of illegal move selected. |
| **Postconditions:** | 1. System moves turtle.  2. If illegal method entered error message is displayed. |
| **Business Rules** | N/A |
| **Notes:** | User selects move and either turtle is moved or error message is displayed if illegal movement entered in distance. |
| **Author:** | Paul Darr |
| **Date:** | 6/7/2018 |

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| --- | --- |
| **Name:** | End |
| **Summary:** | Movement is ended. |
| **Version:** | 1.0 |
| **Preconditions:** | 1. System Start.  2. System displays End button. |
| **Triggers:** | 1. User selects End button. |
| **Main Success Scenario:** | Movement ends. |
| **Alternative Success Scenarios:** | N/A |
| **Postconditions:** | 1. System displays End button font as grey to indicate selected.  2. Print font is displayed as black. |
| **Business Rules** | N/A |
| **Notes:** | User selects end button, movement is ended and print button is now available. |
| **Author:** | Paul Darr |
| **Date:** | 6/7/2018 |

|  |  |
| --- | --- |
| **Name:** | Print |
| **Summary:** | Print end coordinates of turtle. |
| **Version:** | 1.0 |
| **Preconditions:** | 1. System Start.  2. System displays End button.  3. User selects End button.  4. System displays Print button. |
| **Triggers:** | 1. User selects print button. |
| **Main Success Scenario:** | Application prints end coordinates. |
| **Alternative Success Scenarios:** | N/A |
| **Postconditions:** | 1. System displays end coordinates in print field.  2. Print and End buttons font change to grey. |
| **Business Rules** | N/A |
| **Notes:** | Application prints the coordinates and buttons set print and end font to grey indicating program is in start condition again. |
| **Author:** | Paul Darr |
| **Date:** | 6/7/2018 |

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| --- | --- |
| **Name:** | Close Window |
| **Summary:** | Close the program. |
| **Version:** | 1.0 |
| **Preconditions:** | 1. System Start. |
| **Triggers:** | 1. User selects close button. |
| **Main Success Scenario:** | Application closes. |
| **Alternative Success Scenarios:** | Application crashes but still closes. |
| **Postconditions:** | 1. Application is closed. |
| **Business Rules** | N/A |
| **Notes:** | User closes the application. |
| **Author:** | Paul Darr |
| **Date:** | 6/7/2018 |