# Appendix

## Code

## Testing

### LUIS Testing

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| --- | --- | --- | --- | --- | --- |
| **Number** | **Test** | **Expected Outcome** | **Actual Outcome** | **Message Content** | **Notes** |
| 1 | LUIS understands the 'version' intent and provides correct arguments (If any) | Pass | Pass | "Version" |  |
| 2 | LUIS understands the 'version' intent and provides correct arguments (If any) | Pass | Pass | "What is your version" |  |
| 3 | LUIS understands the 'version' intent and provides correct arguments (If any) | Pass | Pass | "What version number are you at?" |  |
| 4 | LUIS understands the 'help' intent and provides correct arguments (If any) | Pass | Pass | "Help" |  |
| 5 | LUIS understands the 'help' intent and provides correct arguments (If any) | Pass | Pass | "Help me" |  |
| 6 | LUIS understands the 'help' intent and provides correct arguments (If any) | Pass | Pass | "What do you do?" |  |
| 7 | LUIS understands the 'ping' intent and provides correct arguments (If any) | Pass | Pass | "ping connor-bell.com" |  |
| 8 | LUIS understands the 'ping' intent and provides correct arguments (If any) | Pass | Pass | "ping the address at www.google.com" |  |
| 9 | LUIS understands the 'ping' intent and provides correct arguments (If any) | Pass | Pass | "please ping the url at domainthatisdefinitelydown.com" |  |
| 10 | LUIS understands the 'traceroute' intent and provides correct arguments (If any) | Pass | Fail | "traceroute connor-bell.com" | Incorrect argument - LUIS returned "bell.com" as the address argument |
| 11 | LUIS understands the 'traceroute' intent and provides correct arguments (If any) | Pass | Pass | "trace a rotue to the address www.google.com" | Note: Intentional misspelling |
| 12 | LUIS understands the 'traceroute' intent and provides correct arguments (If any) | Pass | Pass | "please trace a route to domainthatisdefinitelydown.com" |  |
| 13 | LUIS understands the 'ssh' intent and provides correct arguments (If any) | Pass | Pass | "ssh floe.xyz" |  |
| 14 | LUIS understands the 'ssh' intent and provides correct arguments (If any) | Pass | Pass | "open a tunnel to floe.xyz" |  |
| 15 | LUIS understands the 'ssh' intent and provides correct arguments (If any) | Fail | Pass | "Start a live shell with floe.xyz" | This particular sentence was not trained into LUIS, but it managed to gather the intent and arguments correctly. |
| 16 | LUIS understands the 'idenitfy' intent and provides correct arguments (If any) | Pass |  | "identify" |  |
| 17 | LUIS understands the 'identify' intent and provides correct arguments (If any) | Pass |  | "Who am I?" |  |
| 18 | LUIS understands the 'identify' intent and provides correct arguments (If any) | Fail | Pass | "What is my user ID?" | This particular sentence was not trained into LUIS, but it managed to gather the intent correctly. |
| 19 | LUIS understands the 'logs' intent and provides correct arguments (If any) | Pass | Pass | "apache access logs floe" |  |
| 20 | LUIS understands the 'logs' intent and provides correct arguments (If any) | Pass | Pass | "Get the auth logs for system from the floe server" |  |
| 21 | LUIS understands the 'logs' intent and provides correct arguments (If any) | Pass | Pass | "get the apache error logs from floe" |  |
| 22 | LUIS understands the 'associate' intent and provides correct arguments (If any) | Pass | Pass | "associate floeAuthLogs" |  |
| 23 | LUIS understands the 'associate' intent and provides correct arguments (If any) | Pass | Pass | "Associate me with floeauthLogs" |  |
| 24 | LUIS understands the 'associate' intent and provides correct arguments (If any) | Fail | Fail | "Associate me with the intermittent query floeauthlogs" | LUIS was not trained to understand 'intermittent query', so this failure is expected. The intent was correct but no argument was sent. |
| 25 | LUIS understands the 'none' intent and provides correct arguments (If any) | Pass | Pass | "awodnawioduhwaidih" |  |
| 26 | LUIS understands the 'none' intent and provides correct arguments (If any) | Pass | Pass | "There is no intent in this sentence." |  |
| 27 | LUIS understands the 'none' intent and provides correct arguments (If any) | Pass | Fail | In this message we sent a message with 35,000 characters | The application did not crash, but outputted many errors and responded with 8 POST failures as the message was split into several messages by the Telegram service. |

### Application Testing

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| --- | --- | --- | --- | --- | --- |
| **Number** | **Test** | **Expected Outcome** | **Actual Outcome** | **Message Content** | **Notes** |
| 1 | Application handles 'version' intent correctly | Pass | Pass | "Version" |  |
| 2 | Application handles 'version' intent correctly | Pass | Pass | "What is your version" |  |
| 3 | Application handles 'version' intent correctly | Pass | Pass | "What version number are you at?" |  |
| 4 | Application handles 'help' intent correctly | Pass | Pass | "Help" |  |
| 5 | Application handles 'help' intent correctly | Pass | Pass | "Help me" |  |
| 6 | Application handles 'help' intent correctly | Pass | Pass | "What do you do?" |  |
| 7 | Application handles 'ping' intent correctly | Pass | Pass | "ping connor-bell.com" |  |
| 8 | Application handles 'ping' intent correctly | Pass | Pass | "ping the address at www.google.com" |  |
| 9 | Application handles 'ping' intent correctly | Pass | Pass | "please ping the url at domainthatisdefinitelydown.com" |  |
| 10 | Application handles 'traceroute' intent correctly | Pass | Fail | "traceroute connor-bell.com" | An incorrect argument from LUIS (only giving 'bell.com') means this test fails |
| 11 | Application handles 'traceroute' intent correctly | Pass | Pass | "trace a rotue to the address www.google.com" |  |
| 12 | Application handles 'traceroute' intent correctly | Pass | Pass | "please trace a route to domainthatisdefinitelydown.com" |  |
| 13 | Application handles 'ssh' intent correctly | Pass | Pass | "ssh floe.xyz" |  |
| 14 | Application handles 'ssh' intent correctly | Pass | Pass | "open a tunnel to floe.xyz" |  |
| 15 | Application handles 'ssh' intent correctly | Fail | Pass | "Start a live shell with floe.xyz" | See LUIS testing for expected fail. |
| 16 | Application handles 'ssh' intent with incorrect responses correctly | Fail | Fail | Incorrectly answered all questions | This was not checked for and so fails, as expected. The application does nothing and does not inform the user of any mistakes, and the next command to be sent is not parsed. |
| 17 | Application handles 'idenitfy' intent correctly | Pass | Pass | "identify" |  |
| 18 | Application handles 'identify' intent correctly | Pass | Pass | "Who am I?" |  |
| 19 | Application handles 'identify' intent correctly | Fail | Pass | "What is my user ID?" | See LUIS testing for expected fail. |
| 20 | Application handles 'logs' intent correctly | Pass | Pass | "apache access logs floe" |  |
| 21 | Application handles 'logs' intent correctly | Pass | Pass | "Get the auth logs for system from the floe server" |  |
| 22 | Application handles 'logs' intent correctly | Pass | Pass | "get the apache error logs from floe" |  |
| 23 | Application handles 'logs' intent with incorrect arguments correctly | Pass | Pass | "get the test test logs from test" | Informs the user that their query does not exist and shows them what information was gathered from their message. |
| 24 | Application handles 'associate' intent correctly | Pass | Pass | "associate floeAuthLogs" |  |
| 25 | Application handles 'associate' intent correctly | Pass | Pass | "Associate me with floeauthLogs" |  |
| 26 | Application handles 'associate' intent correctly | Pass | Fail | "Associate me with the intermittent query floeauthlogs" | LUIS training failure means the argument is invalid. |
| 27 | Application handles 'associate' with incorrect query | Pass | Pass | "Associate me with nonexistent" | Informs the user the query does not exist. |
| 28 | Application handles 'none' intent correctly | Pass | Pass | "awodnawioduhwaidih" |  |
| 29 | Application handles 'none' intent correctly | Pass | Pass | "There is no intent in this sentence." |  |
| 30 | Application handles 'none' intent correctly | Pass | Fail | In this message we sent a message with 35,000 characters | The application did not crash, but outputted many errors and responded with 8 POST failures as the message was split into several messages by the Telegram service. |