**Test Case VS00003**

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| **Test Case Name/ ID** | VS00003 | **Software Name/ Version** | **Chomp Sci 1.0** |
| **Revision Date** | 04/17/2023 | **Last Author** | **Robert Caplin** |
| **Requirements** | R3. Prospective students interested in Computer Science should be able to learn about related topics, courses, and careers.  R5. Prospective students should be able to learn about the broad scope of topics that fall within Computer Science. | | |

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| **Pre-test Data/ Scripts** | N/A |
| **Post-test Output** | N/A |

**Test pre-requisites and setup notes:**

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| A URL pointing to the Chomp Sci test webserver. |

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|  | **Step Description** | **Expected Result** | **Actual Result** |
|  | Navigate to Chomp Sci test webserver. Record the URL used for testing. | You can access the Chomp Sci project page and load it in your browser. | Used URL chompsci.com. I can access the page and load it in my browser. |
|  | Open the Chomp Sci chat widget by clicking the button at the bottom right of the page. | You can open the Chomp Sci chat widget.  Chomp greets you with the message:  “I’m Chomp, the computer science chat bot! Would you like to talk about computer science or about the University of Florida?” | I can open the widget, and the chatbot greets as expected. |
|  | Ask Chomp:  “What is Computer Science?” | “While there is no official definition of Computer Science, one way to view it is as the study of computation. This includes the study of:  - What can and cannot be solved through step by step processes called algorithms  - How to calculate and improve the efficiency of these processes  - How to solve practical computing problems like designing and building software  Why are you interested in computer science?” | Acts as expected |
|  | Ask Chomp:  “Why isn't there an official definition?” | “The first general purpose computers began to be built in the United States and Europe during the late 1930s. The term Computer Science was coined in the 1950s to describe related coursework being offered by universities.”  “The development of modern computers took place over a period of centuries, drawing from a number of fields in Mathematics, Science, and Engineering. As a result, the topics addressed by these courses were just as broad. While the academic field of Computer Science is relatively young, it has expanded rapidly and has far reaching societal impacts.  It is likely that for all of these reasons, there are a variety of perspectives on what constitutes Computer Science and how it should be defined.” | Acts as expected. Correct response is printed. |
|  | Ask Chomp:  “What will I learn about in Computer Science?” | “Computer Science covers a variety of diverse topics, many of which are taught at the University of Florida.  Some of these topics include: operating systems, computer graphics, parallel computing, artificial intelligence, networking, cryptography, etc.  For a complete list of subfields and their topics, refer to this link: <https://en.wikipedia.org/wiki/Outline_of_computer_science>You can ask me about any of the topics listed under each subfield.”  -> Give me some examples. | Responds as expected. |
|  | Click “Give me some examples.”  Make a note of which randomly selected quick-link topics were returned. | Chomp responds with quick-links to 3 randomly selected topics in the database:  “Here are some example topics I know about:”  -> *topic 1* -> *topic 2*  -> *topic 3* | Responded appropriately with quick links to Algorithms, Game theory, and Data mining. |
|  | Use the quick-links to explore each topic and its associated classes and careers.  **note**:  **not all topics will have classes or careers associated with them**. | Chomp is able to return a brief description of each topic as well as any associated classes or careers that might be present in the database. | Returned brief description of each of the three topics. Showed buttons for Classes and Careers. |
|  | Click the quick-link button for *topic 1*. Review its description.  Click “Classes?” and use the quick-links to  review associated classes (if present).  Return to *topic 1* in the chat log and click the “Careers?” quick-link. Use the quick-links to review associated careers (if present). | Chomp should be able to return associated classes and careers from the database for each topic if present.  **note**: **not all topics will have classes or careers associated with them**. | “Here is what I know about data mining: Data mining involves the study of algorithms for searching and processing information in documents and databases; closely related to information retrieval.”  “What would you like to know about this topic?”  -> Classes?  -> Careers?  “It doesn't seem like there are any classes related to this...”  “Here are careers related to data mining: Data Scientist”  “Click on the buttons below to learn more about each career:”  -> Data Scientist  “Here is what I know about careers as a Data Scientist: Data scientists use mathematical models to answer questions and solve problems in the real world. They apply advanced tools and techniques to find patterns, create visualizations, and draw conclusions from data sets.”  “You can learn more about it in these classes: CAP 4770; CGS 4144”  “Click the buttons below to learn more about each class:”  -> CAP 4770  -> CGS 4144  “CAP 4770 is Introduction to Data Science: Introduces the basics of data science including programming for data analytics, file management, relational databases, classification, clustering, and regression; lays the foundation for big data applications ranging from social networks to medical and business informatics.”  “Are there any other classes or topics you have questions about?”  “CGS 4144 is Introduction to Bioinformatic Algorithms: Uses Compeau and Pevzner’s active learning approach from their textbook, Bioinformatics Algorithms, to cover fundamental topics in genomics, machine learning, and biological data science, striking a unique balance between practical challenges in modern biology and fundamental algorithmic ideas.”  “Are there any other classes or topics you have questions about?” |
|  | Repeat the above step for at least 1 of the other topics. | Chomp should be able to return associated classes and careers from the database for each topic if present.  **note**: **not all topics will have classes or careers associated with them**. | “Here is what I know about algorithms: Algorithms are typically sequential and parallel computational procedures for solving a wide range of problems.”  “What would you like to know about this topic?”  -> Classes?  -> Careers?  “You can learn more about algorithms in these classes: COP3530”  “Click the buttons below to learn more about each class:”  “I don't know of any classes with the code COP3530... try rephrasing, or ask about one of these classes.”  -> CIS 4956  -> COP 3504C  -> CGS 4144  “Are there any other classes or topics you have questions about?”  “Here are careers related to algorithms: Computer Programmer”  “Click the buttons below to learn more about each career:”  -> Computer Programmer  “Here is what I know about careers as a Computer Programmer: Computer programmers use programming languages to write, test, and maintain code. Together with software developers and engineers, programmers create the instructions computers use to execute tasks. A programmer's job also includes finding bugs, eliminating errors, and troubleshooting issues.”  “You can learn more about it in these classes: COP 3502C; COP 3503C; COP 3504C; COP 3530; COP 4020; COP 2271; COP 2800; COP 3275”  “Click the buttons below to learn more about each class:”  ->COP 3502C  -> COP 3503C  -> COP 3504C  -> COP 3530  -> COP 4020  -> COP 2271  -> COP 2800  -> COP 3275  Buttons for each of the classes work |
|  | Ask Chomp:  “What do you know about Operating Systems?” | “Here is what I know about operating systems:  Operating systems are systems for managing computer programs and providing the basis of a usable system.”  “What would you like to know about this topic?”  -> Classes? -> Careers? | Expected output is displayed |
|  | Check the “Classes?” and “Careers?” quick-links for Operating Systems to ensure the associated information in the database is being returned. | Chomp should be able to return associated classes and careers from the database. | Works as expected |
|  | Ask Chomp:  “What are security analysts?” | “Here is what I know about careers as a security analyst:  Information security analysts keep their companies' data and computer systems safe from cyberattacks. They install protective software, watch for potential breaches, and respond to any attacks that do occur.”  “You can learn more about it in these classes: CNT 4007; ENC 3246; CAP 4136; CAP 4621; CAP 4641; CEN 4072; CIS 4204; CIS 4213; CIS 4360; CIS 4362”  -> quick-links for the above courses | Output displayed as expected |
|  | Check a few of the course quick-links associated with this career. | Chomp is able to return the appropriate course data from the database. | Links work properly |
|  | What is COT 3100? | “COT 3100 is Applications of Discrete Structures: Covers the mathematics of discrete events; i.e., events that involve distinct elements, finite structures of distinct elements or finite sampled versions of continuous phenomena (such as movement).”  “Are there any other classes or topics you have questions about?” | Works as expected. |

**Validation:**

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| You can successfully complete the test case. Chomp can return information pertaining to the scope of topics within Computer Science. You can use Chomp to explore topics, careers, and courses in Computer Science. |

**Test Log**

| **Date** | **Configuration** | **Tester** | **Result or Issue** | **Result** |
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| 04/17/2023 | Microsoft Edge Version 112.0.1722.48 (Official build) (64-bit) browser on Laptop Windows 11 | Katriana O’Hara | *Fail. Some of the course buttons do not have the course codes formatted properly so the lookup in the database fails.* | *Fail* |

***Instructions:*** *Complete ‘Actual Result’ column, overwriting any previous entries while working through test case. When the test is completed insert a new row at the top of the test log and include a description of the issue if the test failed. Remember to update the revision date and author if you have made other changes to the test case.*