**Test Case VS00002**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Case Name/ ID** | VS00002 | **Software Name/ Version** | **Chomp Sci 1.0** |
| **Revision Date** | 04/17/2023 | **Last Author** | **Robert Caplin** |
| **Requirements** | R2. As a prospective student I would like to get a high-level overview of Computer Science. | | |

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

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

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

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Step Description** | **Expected Result** | **Actual Result** |
|  | Navigate to the 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. | I can open the chat widget. |
|  | Ask Chomp:  “What is Computer Science?” | Chomp should provide a description of 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?” | Chomp should provide an explanation:  “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 |
|  | Ask Chomp about Computer Science history:  “Tell me about the history of Computer Science.” | Chomp should provide information on the development of Computer Science and a quick link button to a related topic:  “The foundation of Computer science predates modern computers. Ancient peoples used machines, like the abacus, and algorithms, like the Sieve of Eratosthenes, to perform calculations.”  -> What happened next? | Acts as expected |
|  | Click “What happened next?” | Chomp provides additional information and another quick link button:  “During the Enlightenment, mechanical calculators began to appear in Europe. The famous mathematician Leibniz created one such calculator in 1873. He is sometimes credited as the founder of computer science for documenting the use of logical operations in a binary number system.  https://en.wikipedia.org/wiki/Gottfried\_Wilhelm\_Leibniz”  -> What happened next? | Acts as expected |
|  | Click “What happened next?” | Chomp provides additional information and another quick link button:  “During the Industrial Revolution, Charles Babbage designed increasingly complicated calculators culminating in his Analytical Engine, the first general-purpose computer, in 1837. Due to financial and manufacturing difficulties, the Analytical Engine was never built.  https://en.wikipedia.org/wiki/Charles\_Babbage”  -> What happened next? | Acts as expected |
|  | Click “What happened next?” | Chomp provides additional information and another quick link button:  “In 1843, Ada Lovelace wrote what is considered the first published algorithm for a computer as a supplement to an article on Babbage's Analytical Engine.  https://en.wikipedia.org/wiki/Ada\_Lovelace”  -> What happened next? | Acts as expected |
|  | Click “What happened next?” | Chomp provides additional information:  “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.” | Acts as expected |
|  | Ask Chomp about related majors:  “How does Computer Science compare to other majors?” | Chomp should ask for clarification:  “Which major/adjacent field would you like to know about in comparison to Computer Science?”  -> Electrical Engineering  -> Computer Engineering -> Information Technology -> Information Systems | Acts as expected |
|  | Click “Electrical Engineering.” | Chomp should provide a comparison:  “While there are many differences between Computer Science and Electrical Engineering, one of the most distinct ones is that electrical engineers focus on physical products and work with electricity, electrical currents. and electrical components to create solutions while computer scientists focus on nontangible concepts and use logic, computation, and coding to create solutions. Degrees in electrical engineering may include courses that focus on technical concepts involving digital systems and electric circuits. These courses are usually application-based in manufacturing, navigation systems, communication, health care, etc.“  “Would you like to know about another major/adjacent field?”  -> Electrical Engineering  -> Computer Engineering -> Information Technology -> Information Systems | Acts as expected |
|  | Click “Computer Engineering”. | Chomp should provide a comparison:  “Though Computer Science and Computer Engineering sound similar, the two actually specialize in two separate aspects of computer technology. With computer engineering, more priority is given to computer design and development. Computer science, on the other hand, focuses more on computing theory and data analysis. Courses in computer engineering involve learning to develop prototypes and test components such as microchips, circuits, conductors, and processors.”  “Would you like to know about another major/adjacent field?”  -> Electrical Engineering  -> Computer Engineering -> Information Technology -> Information Systems | Acts as expected |
|  | Click “Information Technology”. | Chomp should provide a comparison:  “Information Technology is often referred to as 'the business side of computer science' and focuses more on the technological needs of organizations. Unlike computer science, information technology emphasizes using computers, databases, networks, servers, and software to process, store, transmit, retrieve, and protect data. While computer scientists use theoretical skills to develop and improve computer programs, information technology specialists install, implement, and maintain the programs while applying them to businesses and other professional organizations. The course load for an information technology degree includes classes in which students learn to identify, create, and configure complex computing platforms and systems to solve problems.”  “Would you like to know about another major/adjacent field?”  -> Electrical Engineering  -> Computer Engineering -> Information Technology -> Information Systems | Acts as expected |
|  | Click “Information Systems”. | Chomp should provide a comparison:  “Computer Information Systems, or just Information Systems, focuses on applying technology and systems to help businesses run. It can be viewed as a more commercial approach to computer science. Courses for a degree in information systems may combine business courses, such as Managerial Communication, with coding courses. A degree in information systems is commonly less intensive than a computer science degree and does not delve into programming as deeply as computer science does.”  “Would you like to know about another major/adjacent field?”  -> Electrical Engineering  -> Computer Engineering -> Information Technology -> Information Systems | Acts as expected |
|  | Ask Chomp:  “What kind of jobs can I get with a CS degree?” | Chomp should provide an overview of career options:  “Employers in a variety of industries hire Computer Science graduates for jobs the U.S. Bureau of Labor Statistics classifies as Computer Occupations.  As of May 2021, BLS data shows that 70% of those employed within Computer Occupations work as Software Developers, Support Specialists, Systems Analysts, Network/ Systems Administrators, and QA Analysts.  To learn more, enter the name of a career in computer science. A list of common computer science careers can be found at  https://www.computerscience.org/careers/.  https://www.bls.gov/oes/current/oes\_nat.htm”  -> Are there other career options? | Acts as expected |
|  | Click “Are there other career options?” | Chomp should provide a brief response:  “Computer Science degrees cover a variety of topics potentially preparing students to pursue careers in related fields such as Hardware Design, Data Science, Digital Media, or Business.  Earning a college degree demonstrates your ability to achieve and learn, traits helpful in many positions. Your major is only one indicator of fit. Personal experience, interests, and skills are also important and it is not uncommon for graduates to work outside their fields of study.” | Acts as expected |

**Validation:**

|  |
| --- |
| *You can complete the test case successfully. Chomp Sci should respond as indicated.* |

**Test Log**

| **Date** | **Configuration** | **Tester** | **Result or Issue** | **Result** |
| --- | --- | --- | --- | --- |
| 04/17/2023 | Microsoft Edge Version 112.0.1722.48 (Official build) (64-bit) browser on Laptop Windows 11 | Katriana O'Hara | Pass. Everything functions as expected. | *Pass* |
| 03/20/2023 | Chrome Version 111.0.5563.65 (Official Build) (64-bit) browser on Desktop Windows 10. | Christopher Schmidt | Fail. The chatbot fails on step 6 when given the directions to ask about “Computer Engineering” and “IT” using the provided phrases. This is likely a conflict with the Computer Science Topics intent, as it uses similar phrasing to the questions and provides the fallback answer of “I’m not well-trained on [entity].” | *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.*