**Test Strategy:**

**1. Data Correctness Testing**

Test the result with specific and general keywords; make sure the website does not redirect to the error page if the user inserts % in the search field; check whether the search functionality offers auto-suggestions and typo-corrections.

**2. Error Handling**

Test the search result with an empty search box, long text, error spellings, multiple spaces, and capital letters at the beginning, in the middle, and at the end of the word combination.

**3. Functional Testing**

Check whether the search box length, the supported characters, and the length of the query are as per the specification; test whether the search page offers price and product sort based on sales rank, popularity, brands, reviews, categories. shipping options, etc.

**4. Security**

Test what is stored in cookies, XSS, API security, source code, whether it is necessary to use HTTPs instead of HTTP, and try the SQL injection.

**5. Performance Testing**

Test the search functionality performance with the high number of results and users, as well as monitor the request and response time with the various search queries.

**6. User Interface**

Test how the query is displayed in the search box, identify any missing CSS. Make sure that the search box is noticeable and easy to use.

**7. Compatibility**

To make sure the search functionality is [mobile-friendly](https://blog.qatestlab.com/2020/02/04/automation-mobile-testing/), check whether the search box is displayed, provides a category selector, and offers a drop-down menu on mobile and tablet; perform cross-browser testing; check how the search functionality works with different operating systems.

As part of the user story creation will prefer to have the acceptance criteria cleared for the story before the development starts. This will involve a QA working with BA and the developer to understand the scope of it. As the story comes into development the QA will work with the dev to work on unit and component test which will be developed by the devs, and remaining integration and functional test automation will be done by the QA. Once the development of the story is done, it will go through the review process of DOD(Definition of Done) to make sure everything is completed as part of the agreed process.

Test Management Tool: Zephyr

Tracking Plan:

* Need to create the test cases in zephyr.
* Link the test cases to the stories in the sprint
* Create a release in the zephyr
* Create a cycle for execution.
* Track the progress and execution by creating a dashboard with the use of gadgets such as Test Execution Progress, Test Execution by cycle and Test Execution Burndown chart.

Test Cases:

* Search results displayed should be relevant to search keyword
* % sign in search keyword should not redirect to 404 ERROR
* Application should not crash if user inserted % in search field
* When user start typing word in text box it should suggest words that matches typed keyword
* There should be pre-defined search criteria for auto complete e.g. after typing first 3 letter it should suggest matching keyword
* When user clicks on any link from result and navigates back, then result should be maintained
* After clicking Search field - search history should be displayed (Recent Search)
* All search keyword/filters should get cleared on clicking Clear Recent button
* History displayed in search field should be relevant to logged in user only
* Pagination should be tested for searches returning high number of records
* Total number of search records/results should be displayed on page
* Search keyword should get highlighted with color in the search results
* Search keyword should suggest similar kind of product/items
* For Advanced Search - limited search filters should be provided
* Water text should be provided for user to understand what to search
* Validate search rules defined for “Exact Match” with the search key word
* Validate search rules defined for “Similar Match” with the search key word
* Validate search rules defined to search with a set of keywords
* User should be able to search when he enters the keyword and hits ‘Enter’ button on keyboard
* Verify that the Search functionality field or button should be available and active in the Screen or page or application of the system.
* Verify the GUI of the Search field is suitable or not with the page or purpose (Alignment, Search Field Size, Text colour, Box colour).
* Verify that the Search page or search result area displaying without performing search.
* Verify that if do not enter any text and click on Search button then Search functionality is working or not or display any message.
* Verify the Search result if enter Space by hitting the spacebar of keyboard multiple times in text field and click on Search.
* Verify that the Search functionality is able to search correctly when the spelling of the word is incorrect.
* Verify that the Search Suggestions display or not while typing the word for searching in the search field.
* Verify that the Image capturing feature for the Search functionality is available or not.
* Verify that the Search functionality is able to do search through Image or not.
* Verify the Search Result of “\*” type in the text area and click on the Search button.
* Verify the Search Result of “%ar%” or other SQL operators like Percent %, Asterisk \*, Question mark ?, Underscore \_.
* 25. Verify that if there is no any Search Result found then message of No Result Found or any message is displaying in the result area or not.