Story list

Basic Search flow

As a MarsAir Sales Director (Mark)
I want potential customers to be able to search for flights to Mars
So that they see what trips are available

Acceptance criteria

- There should be ‘departure’ and ‘return’ fields on a search form.
- Flights leave every six months, in July and December, both ways.
- Trips for the next two years should be searchable.
- If there are seats, display “Seats available! Call 0800 MARSAIR to book!”
- If there are no seats, display “Sorry, there are no more seats available.”

Promotional Codes

As a MarsAir Sales Director (Mark)
I want to distribute promotional codes to customers
So that they get discounts and are more tempted to purchase tickets

Acceptance criteria

- Promotional codes are in the format XX9-XXX-999.
- Characters are all random.
- The first digit indicates the discount percentage (2 = 20%, 3 = 30% etc).
- The next two digits are random.
- The final digit is a check digit; it is equal to the sum of all other digits modulo 10, eg:

  AF3-FJK-41?: 3 + 4 + 1 = 8, so the complete promotional code is AF3-FJK-418
  JJ5-OPQ-32?: 5 + 3 + 2 = 10, so the complete promotional code is JJ5-OPQ-320

- When a valid code is entered, the search result should have a “Promotional code [code] used: [discount]% discount!” message.
- Otherwise, show “Sorry, code [invalid promo code] is not valid”.

Link to Home Page

As a MarsAir Sales Director (Mark)
I want potential customers to be able to go back to the flight search from anywhere on the site
So that they are guided towards booking trips

Acceptance criteria

- “Book a ticket to the red planet now!” should apperar somewhere prominent on the page.
- Clicking it takes the user to the home page.
- Clicking the MarsAir logo on the top left should also take the user to the home page.

Invalid Return Dates

As a MarsAir Sales Director (Mark)
I want to prevent potential customers from searching for invalid trips
So that they don’t waste time, and book valid ones

Acceptance criteria

- “Unfortunately, this schedule is not possible. Please try again.” displayed when return date is less than 1 year from the departure.

Test Cases

Basic Search flow

Scenario: The user can see the "departure" and "return" fields on the form.
Pre-condition: -
Objective: To validate that the "departure" and "return" fields are present in the search form.
Given the user accesses the MarsAir website **Then** the search form presents the standard field

Scenario: The user can only schedule half-yearly flights for up to 2 years
Pre-condition: -
Objective: To validate that the values of the "departure" and "return" fields show only July and December, with an interval of up to 2 years.
Given the user accesses the MarsAir website **Then** the options available will only be July and December until the next 2 years

Scenario: The user finds available seats
Pre-condition: Have a departure and return interval that has seats available.
Objective: To validate that, when searching for an interval that has seats available, the system returns with the message: “Seats available! Call 0800 MARSAIR to book! ”
Given the user accesses the MarsAir website **When** selecting the departure and return that has a seat available **Then** the application should display the message stating availability

Scenario: User cannot find seats available
Pre-condition: Have a departure and return interval that does not have seats available.
Objective: To validate that, when searching for an interval that does not have available seats, the system returns with the message: “Sorry, there are no more seats available.”
Given the user accesses the MarsAir website **When** selecting the departure and return that does not have a seat available **Then** the application should display a friendly message stating unavailability

Promotional Codes

Scenario: The user enters a valid promotional code
Pre-condition: Have a departure and return interval that has seats available. Have a valid promotional code
Objective: To validate that, when searching and entering a valid promotional code, the

system displays the message “Promotional code [code] used: [discount]% discount!” and the application of the discount is in accordance with the rules of the first digit.
Given the user accesses the MarsAir website **When** selecting the departure, return and inform a valid promotional code **Then** the application will display a message describing the promotional code **And** the application of the discount is in accordance with the promotional code

Scenario: The user enters an invalid promotional code
Pre-condition: Have a departure and return interval that has seats available. Have an invalid promotional code.
Objective: To validate that, when searching and entering an invalid promotional code, the system displays the message “Sorry, code [invalid promo code] is not valid”
Given the user accesses the MarsAir website **When** selecting the departure, returning and entering an invalid promotional code **Then** the application will display a message stating that the promotional code is invalid

Scenario: An accepted promotional code has the valid format
Pre-condition: Have a departure and return interval that has seats available. Have a valid promotional code.
Objective: To validate that, when searching for and entering a valid promotional code, it has the format XX9-XXX-999.
Given the user accesses the MarsAir website **When** selecting the departure, return and inform a valid promotional code **Then** the valid promotional code has the format in the correct pattern

Scenario: An accepted promotional code has a valid check digit
Pre-condition: Have a departure and return interval that has seats available. Have a valid promotional code
Objective: To validate that, when searching and entering a valid promotional code, it has the correct check digit, being the sum of the previous digits.
Given the user accesses the MarsAir website **When** selecting the departure, return and inform a valid promotional code **Then** the valid promotional code has the correct verifier digit

Link to Home Page

Scenario: The "Book a ticket to the red planet now!" text redirects to the home page
Pre-condition: It's on the search results screen
Objective: To validate that when clicking on the "Book a ticket to the red planet now!" text, the user is redirected to the website's home page.
Given the user accesses the MarsAir website **When** searching for seats **And** click on the "Book a ticket to the red planet now!" text **Then** the user will be redirected to the home page

Scenario: The MarsAir logo redirects to the home page
Pre-condition: It's on the search results screen
Objective: To validate that when clicking on the MarsAir logo, the user is redirected to the website's home page.
Given the user accesses the MarsAir website **When** searching for seats **And** click on the MarsAir logo **Then** the user will be redirected to the home page

Invalid Return Dates

Scenario: The user is unable to search for a trip with a return of less than 1 year
Pre-condition: -
Objective: To validate that it is not possible to search for an interval of departure and return less than 1 year, where the site will display the message: “Unfortunately, this schedule is not possible. Please try again.”
Given the user accesses the MarsAir website **When** selecting departure and return less than 1 year apart **Then** the application should display the friendly message stating that the schedule is unavailable

Approach

In the foreground an analysis was made on the problem to be solved, understanding the characteristics of each story and its acceptance criteria, then the stage of writing test cases was started, using BDD with its Gherkin language to specify the behaviors, in a later step, the automation project and its architecture were created, also starting to write automatic test scenarios, using Python, Selenium, Behave and Hamcrest, using test cases written in BDD format. After the automation stage, exploratory tests were carried out on the application, also validating the defined UI / UX and opening the bugs found and categorized on a severity scale.