6.2. Traceability of test cases to use cases(Giorgos Pittis)

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| **Tests(Number)** | **Action** | **Input** | **Expected Output** | **Actual Output** | **Test Result** | **Test Comments** |  |
| No.1 | Sign Up as a User and enter wrong type of credentials the page is asking. | Email ID: …(without@)...com, Password:\*\*\*\*\* | The user get a Warning to change the structure of their credentials to the correct form | The user get the warning … | Pass | The test of the message warning have been completed. |  |
| No.2 | Sign Up as a User and enter the correct type of credentials | Email ID: …@....com Password:\*\*\*\*\*\*\*\* | The User will fill its credentials and continue to the page without any warnings, after the creation of the account. | The user without making any mistakes in the credentials form he will continue exploring the page. | Pass | The test of the account creation of the user have been passed. |  |
| No.3 | Try to Log In as a User and type invalid information | Email ID: …@..com  Password: \*\*\*\*\* (wrong pass or wrong email.) | The user will get a warning message saying that the credentials he/she has entered its wrong, try again. | The user get the warning . | Pass | The test of the warning message while trying to log in have been passed. |  |
| No.4 | Try to Log In as a User and type the correct information | Email ID: …@..com  Password:\*\*\*\*\*  (correct form) | The user will proceed to the page with its account without getting any warning messages | The user successfully have log into their account without getting any warning messages | Pass | The test of the Users Log in correct credentials have been passed. |  |
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| No.5 | Trying to Log in as an Administrator using the wrong information | Admin name :…… Password:\*\*\*\*\* (Wrong password or wrong admin name) | The admin will get a warning message saying that the name or pass are wrong. | The admin get the warning message. | Pass | After the admin get the warning message means that the test have been passed. |  |
| No.6 | Trying to Log in as an Administrator with the correct information | Admin name:….  Password:\*\*\* (Correct pass and admin name) | The admin that is trying to log in after pressing the button log in he wont get any warning messages and continue to the page normally. | The admin successfully entered the correct information to log in . | Pass | The test of the Admin Log in have been passed successfully. |  |
| No.7 | Search Flight based on criteria such as dates , timelines and destinations as a User, successfully | Example: Destination: From🡪 Larnaca(CY) To 🡪 London(ENG)  Dates:  From🡪12/10/2023 Until🡪17/10/2023  Then user press SEARCH. | The User will enter the destinations and dates that he/she wants to travel and after pressing the Search button , all the flights available will appear to the screen. | The user entered the details , clicked the search button and the information about the available flights appeared to the screen. | Pass | The test case of the flight search of the user have been passed successfully. |  |
| No.8 | Book a flight: After searching the flight based on your criteria as a User , when you find the one that you want the most, you press on the flight, and book it successfully. | Click on the flight you want to take in the near future, and then click on the button “Book the flight” | The user will search for the flight, click on it when he/she finds it, then click on the button Book the flight, enter the correct information needed and receive a feedback message that the flight has been booked. | The user successfully booked the flight and got the feedback message without any problems | Pass | The test of the flight booking has been passed successfully. |  |
| No.9 | Cancelation of a flight as a User: Search for a Booked Flight, and cancel it with a feedback message that the refund is been processed to return. | Search for Booked flights. Select the one that you want to cancel , and press the button “Cancel flight”. | The user will search for booked flights , click on them and press the cancel button, then a feedback message will appear saying “The refund is been processed to return” | The user successfully found the booked flight , cancelled it and the feedback message appeared. | Pass | The Test case of the book cancellation has been passed successfully. |  |
| No.10 | Change Flight information as an Administrator(Destinations, Date and Times): The Admin will search for a flight that he wants to change its Destinations(Add stops, remove stops), Dates of the flights and times. | Search for Flight by criteria, click on the flight , and then change whatever must be changed. | The Administrator have to search for the flight , click on it , change its information and then repost it on the page. | The administrator successfully did all the operations. | Pass | The test case 🡪Change of the flight information has been successfully passed. |  |
| No.11 | Remove a Flight as an Administrator. | Search for the flight , click on it and delete it | The administrator have to search for the flight , click on it and delete it | The admin successfully deleted the flight. | Pass | The test plan of deleting has been successfully passed. |  |
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6.3. Techniques used for test generation (Giorgos Pittis)

* User Role Testing:

---User Scenarios🡪Designing tests based on typical user scenarios, such as booking a flight, canceling a booking, etc.

---Administrator Scenarios🡪Designing tests based on administrative tasks, like changing flight information, canceling flights, etc.

* Functional Testing:

---Unit Testing🡪 Testing individual components or functions in isolation.

---Integration Testing🡪 Verifying that different components or systems work together as expected.

* Boundary Value Analysis:

---Testing at the edges of input ranges to ensure the system behaves correctly. For example, testing the minimum and maximum values for flight booking parameters.

* Error Guessing:

---Using intuition and experience to guess potential errors that might occur and designing tests to verify the system's behavior in those scenarios.

* Security Testing:

---Ensuring that the system is secure, especially since you are dealing with sensitive information like flight bookings. This could involve testing for vulnerabilities in login mechanisms, data protection, etc.

* User Interface (UI) Testing:

---Verifying that the user interface is intuitive and functions correctly. This includes testing the progression through the user interface for both administrators and users.

* Load Testing:

---Assessing how well the system performs under different levels of load. This is important to ensure that the system can handle a realistic number of users simultaneously.

* Usability Testing:

---Evaluating the overall user experience to ensure that the system is user-friendly and meets user expectations.