# Checklist for testing search functionality at  [https://www.kayak.com](https://mailtrack.io/trace/link/b4ba828a5001b62e8e427a18ab68b6f285acdbb6?url=https%3A%2F%2Fwww.kayak.com&userId=7234444&signature=c5607de32b110dca)

## General premises

As we know nothing about the internal structure of the product it’s going to be a Black box testing.

As we have no given specifications and requirements the testing will be driven by “Common sense” how a fly tickets search system should work.

This checklist is a System level test work product.

Filtering options on outcome screens will not be covered here as it is rather another big part of the functionality.

## General description

Main functional will be covered by tests derived from Black box techniques such as EP, BVA, Use case. In this section every search option, like “number of travelers” or “class of service”, will be tested with the same set of choices for other options to ensure that search options work well apart.

Then, to test how fields affect each other pairwise technique will be applied, to quickly check that there are no errors at different options values combinations. One of the special program tools will be used. For real development process (especially Agile based) when testers are involved as soon as possible every option value to be better tested with every other options values. It’s not a problem when the iterative approach is used, and new search features are issues one by one. But when we must test the system at once this approach will bring better outcomes in terms of coverage-efforts balance.

Generally, search outcome will be the result of a test actions.

TDT – test design technique that was used for the item creation.

UC – use case.

EP – equivalence partitioning.

BVA – boundary value analysis.

DT – decision table.

To save time, only the first search outcome page is supposed to be checked.

## Direction option checks:

Other options are always – 1 adult, economy, 0 bags, from Ufa to London, in a week from the current date, way back in a week from arriving date.

|  |  |  |  |
| --- | --- | --- | --- |
| # | Description | TDT | Expected result |
| 1 | One-way | UC | Every item in the search outcome contains only one-way info – price, flights |
| 2 | Round-trip | UC | Every item in the search outcome contains only round-trip info – price, flights |
| 3 | Multi-city, for 3 cities | UC | Every item in the search outcome contains only milti-city trip info – price, flights |
| 4 | Trip builder – rather system integration testing and should be tested apart. |  |  |

## Number of travelers checks:

Other options are always – One-way, economy, 0 bags, from Ufa to London, in a week from the current date.

### Control itself checks:

|  |  |  |  |
| --- | --- | --- | --- |
| # | Description | TDT | Expected result |
| 1 | A student | UC | **Student validation required** notification should emerge. |
| 2 | 9 adults and press +. Repeat the same for students, seniors | BVA | **Searches cannot have more than 9 adults** |
| 3 | 1 adult + 7 youths and press + youth | BVA | **Searches cannot have more than 7 children** |
| 4 | 1 senior + 7 children and press + child | BVA | **Searches cannot have more than 7 children** |
| 5 | 1 student + 7 toddlers and press + toddler | BVA | **Searches cannot have more than 7 children** |
| 6 | 1 adult + 1 Infant on lap and press + infant. Repeat for other groups of adults. | BVA | **Searches cannot have more lap infants than adults** |
| 7 | 6 adults + 6 Infants on lap and press + infant. Repeat for other group of adults. | BVA | **Searches cannot have more lap infants than adults** |
| 8 | 9 adults + 7 youth and press + youth. Repeat for other pairs adults, students, seniors + youth, children, toddlers, all combination. | BVA | **Searches cannot have more than 16 travelers** |
| 9 | 1 adult + 1 youth and press – adult.  Repeat for other pairs adults, students, seniors + youth, children, toddlers, all combination. | BVA | **KAYAK cannot run searches for unaccompanied minors** |
| 10 | 1 adult and press – button. Repeat for students, seniors. | BVA | **Searches need at least 1 traveler** |

### Search outcome checks:

Assume that Adults, Students, Seniors are the same for the ticket search, in the table below they are Adults.

Assume that Youths, Children, Toddlers in own seat, are the same for the ticket search, in the table below they are Minors.

Infants on lap = lap infants.

|  |  |  |  |
| --- | --- | --- | --- |
| # | Description | TDT | Expected result |
| 1 | 1 adult, repeat for students, seniors | BVA | Every item in the search outcome contains info only for 1 traveler |
| 2 | 2 adults, repeat for students, seniors | EP | Every item in the search outcome contains info for 2 travelers (total sum) |
| 3 | 9 adults, repeat for students, seniors | EP | Every item in the search outcome contains info for 9 travelers (total sum) |
| 4 | 1 adult + 1 youth, repeat for every pair adult, students, seniors + youth, children, toddler | BVA | Every item in the search outcome contains info for 2 travelers (total sum) |
| 5 | 2 adult + 2 youth, repeat for every pair adult, students, seniors + youth, children, toddler | EP | Every item in the search outcome contains info for 4 travelers (total sum) |
| 6 | 9 adults + 7 youth, repeat for every pair adult, students, seniors + youth, children, toddler | BVA | Every item in the search outcome contains info for 16 travelers (total sum) |
| 7 | 1 adult + 1 lap infant, repeat for students, seniors | BVA | Every item in the search outcome contains info only for 1 traveler |
| 8 | 2 adults + 2 lap infants, repeat for students, seniors | EP | Every item in the search outcome contains info for 2 travelers (total sum) |
| 9 | 9 adults + 7 lap infants, repeat for students, seniors | BVA | Every item in the search outcome contains info for 9 travelers (total sum) |

## Class of service checks:

Other options are always – One-way, 1 adult, 0 bags, from Ufa to London, in a week from the current date.

|  |  |  |  |
| --- | --- | --- | --- |
| # | Description | TDT | Expected result |
| 1 | Economy | UC | Only economy tickets emerged in the search outcome. |
| 2 | Premium Economy | UC | Only “Premium Economy” tickets emerged in the search outcome - [Comfort Classic](https://www.kayak.com/book/flight?code=JGHCdbEw9K.47F3EeHCWiIEdn9PX-8xhQ.34800.8ca4eca71c1b0bc7c9329f2c29a7d740&h=fda1dbc782e9&sub=M-1c0e4bded5d) etc. |
| 3 | Business | UC | Only “Business” tickets emerged in the search outcome. |
| 4 | First | UC | Only “First” class tickets emerged in the search outcome. |
| 5 | Multiple, round trip, to there – business, to back - economy | UC | Tickets in the search results correspond the request. |
| 6 | Multiple, multi-city, first flight – business, second – economy, third - first | UC | Tickets in the search results correspond the request. |

## Luggage checks:

Other options are always – One-way, 1 adult, economy, from Ufa to London, in a week from the current date.

|  |  |  |  |
| --- | --- | --- | --- |
| # | Description | TDT | Expected result |
| 1 | 0 Carry-on bag, 0 checked | DT | Tickets in the search results correspond the request. |
| 2 | 0 Carry-on bag, 1 checked | DT | Tickets in the search results correspond the request. |
| 3 | 0 Carry-on bag, 2 checked | DT | Tickets in the search results correspond the request. |
| 4 | 1 Carry-on bag, 0 checked | DT | Tickets in the search results correspond the request. |
| 5 | 1 Carry-on bag, 1 checked | DT | Tickets in the search results correspond the request. |
| 6 | 1 Carry-on bag, 2 checked | DT | Tickets in the search results correspond the request. |

## From To checks:

Other options are always – One-way, 1 adult, economy, 0 bags, in a week from the current date.

|  |  |  |  |
| --- | --- | --- | --- |
| # | Description | TDT | Expected result |
| 1 | The same country | UC | Corresponding tickets are found, no errors appeared. |
| 2 | Another country | UC | Corresponding tickets are found, no errors appeared. |
| 3 | Another continent | UC | Corresponding tickets are found, no errors appeared. |

## Fly date checks:

Other options are always – One-way, 1 adult, economy, from Ufa to London.

|  |  |  |  |
| --- | --- | --- | --- |
| # | Description | TDT | Expected result |
| 1 | Today | BVA | Corresponding tickets are found, no errors appeared. |
| 2 | Tomorrow | BVA | Corresponding tickets are found, no errors appeared. |
| 3 | During the week | EP | Corresponding tickets are found, no errors appeared. |
| 4 | During the month | EP | Corresponding tickets are found, no errors appeared. |
| 5 | During the year | EP | Corresponding tickets are found, no errors appeared. |
| 6 | Max far future date, available in the control | BVA | Corresponding tickets are found, no errors appeared. |
| 7 | Look over these options | UC | Corresponding tickets are found – not only the exact date but in the respective range. |
| 8 | Look over these options – choose dates with these colors in the control. |  | Found tickets’ prices correspond these ranges (seems that works not very well, at least for some directions) |

## Error guessing, using Chrome developer tools:

|  |  |  |  |
| --- | --- | --- | --- |
| # | Description | TDT | Expected result |
| 1 | Try to change some option values by Chrome Dev Tools, to send wrong information to the backend. For example, 0 adults + 1 youth, that can not be pushed to the backend using UI. | EG | Impossible to change values. |

## Pairwise testing

<https://pairwise.teremokgames.com/1nmls/>

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Direction** | **Adult** | **Class** | **Carry-on bag** | **Checked bag** | **Students** | **Seniors** | **Youth** | **Children** | **Toddlers** | **Infant** |
| **1** | Multi-city | 9 | Multiple | 0 | 0 | 1 | 9 | 5 | 1 | 7 | 1 |
| **2** | Multi-city | 1 | Economy | 1 | 1 | 5 | 1 | 7 | 5 | 1 | 5 |
| **3** | Multi-city | 5 | Premium economy | 2 | 0 | 9 | 5 | 1 | 7 | 1 | 7 |
| **4** | Multi-city | 5 | Multiple | 1 | 1 | 9 | 5 | 1 | 5 | 1 | 7 |
| **5** | Multi-city | 9 | Economy | 2 | 0 | 1 | 9 | 1 | 7 | 5 | 1 |
| **6** | Multi-city | 1 | Premium economy | 0 | 1 | 5 | 1 | 5 | 1 | 7 | 5 |
| **7** | Multi-city | 1 | Business | 1 | 0 | 9 | 1 | 7 | 5 | 1 | 7 |
| **8** | Multi-city | 5 | First | 2 | 1 | 1 | 5 | 1 | 7 | 5 | 1 |
| **9** | Round trip | 9 | Multiple | 0 | 1 | 5 | 9 | 1 | 1 | 5 | 5 |
| **10** | Round trip | 1 | Economy | 1 | 0 | 9 | 1 | 1 | 5 | 7 | 7 |
| **11** | Round trip | 9 | Business | 0 | 0 | 5 | 9 | 7 | 1 | 1 | 5 |
| **12** | Round trip | 1 | First | 1 | 1 | 9 | 1 | 1 | 5 | 5 | 7 |
| **13** | Round trip | 1 | Multiple | 2 | 0 | 1 | 1 | 5 | 7 | 7 | 1 |
| **14** | Round trip | 5 | Economy | 0 | 1 | 5 | 5 | 7 | 1 | 1 | 5 |
| **15** | Round trip | 9 | Premium economy | 0 | 0 | 9 | 9 | 1 | 1 | 5 | 7 |
| **16** | Round trip | 1 | Business | 1 | 1 | 1 | 1 | 5 | 5 | 7 | 1 |
| **17** | Multi-city | 1 | Premium economy | 0 | 1 | 1 | 5 | 1 | 5 | 1 | 5 |
| **18** | Multi-city | 5 | Business | 1 | 0 | 5 | 9 | 5 | 7 | 5 | 7 |
| **19** | Multi-city | 9 | First | 2 | 1 | 9 | 1 | 7 | 1 | 7 | 1 |
| **20** | Multi-city | 5 | Premium economy | 1 | 0 | 5 | 1 | 5 | 1 | 5 | 1 |
| **21** | Multi-city | 9 | Business | 2 | 1 | 9 | 5 | 7 | 5 | 7 | 5 |
| **22** | Multi-city | 1 | First | 0 | 0 | 1 | 9 | 1 | 7 | 1 | 7 |
| **23** | One-way | 1 | Business | 2 | 0 | 1 | 1 | 7 | 7 | 5 | 1 |
| **24** | One-way | 5 | First | 0 | 1 | 5 | 5 | 1 | 1 | 7 | 5 |
| **25** | One-way | 9 | Multiple | 0 | 0 | 9 | 9 | 5 | 1 | 1 | 7 |
| **26** | One-way | 1 | Economy | 1 | 1 | 1 | 1 | 7 | 5 | 5 | 1 |
| **27** | One-way | 1 | Premium economy | 2 | 0 | 5 | 1 | 1 | 7 | 7 | 5 |
| **28** | One-way | 5 | Business | 0 | 1 | 9 | 5 | 5 | 1 | 1 | 7 |
| **29** | One-way | 9 | First | 1 | 0 | 1 | 9 | 7 | 5 | 1 | 1 |
| **30** | One-way | 1 | Multiple | 2 | 1 | 5 | 1 | 1 | 7 | 5 | 5 |
| **31** | One-way | 5 | Economy | 0 | 0 | 9 | 5 | 1 | 1 | 7 | 7 |
| **32** | One-way | 9 | Premium economy | 1 | 1 | 1 | 9 | 5 | 5 | 1 | 1 |
| **33** | Round trip | 5 | Multiple | 1 | 0 | 9 | 9 | 1 | 1 | 1 | 1 |
| **34** | Round trip | 9 | Economy | 2 | 1 | 1 | 1 | 1 | 5 | 5 | 5 |
| **35** | Round trip | 1 | Premium economy | 0 | 0 | 5 | 5 | 5 | 7 | 7 | 7 |
| **36** | Round trip | 1 | Business | 1 | 1 | 9 | 9 | 7 | 1 | 1 | 1 |
| **37** | Round trip | 5 | First | 2 | 0 | 1 | 1 | 1 | 1 | 5 | 5 |
| **38** | Round trip | 9 | Multiple | 0 | 1 | 1 | 5 | 5 | 5 | 7 | 7 |
| **39** | Round trip | 1 | Economy | 1 | 0 | 5 | 9 | 7 | 7 | 1 | 1 |
| **40** | Round trip | 5 | Premium economy | 2 | 1 | 9 | 1 | 1 | 1 | 1 | 5 |
| **41** | Round trip | 9 | Business | 0 | 0 | 1 | 1 | 5 | 5 | 5 | 7 |
| **42** | Round trip | 1 | First | 0 | 1 | 5 | 5 | 7 | 7 | 7 | 1 |
| **43** | Multi-city | 9 | Premium economy | 1 | 0 | 1 | 9 | 1 | 5 | 7 | 1 |
| **44** | Multi-city | 1 | Business | 2 | 1 | 5 | 1 | 5 | 7 | 1 | 5 |
| **45** | Multi-city | 1 | First | 0 | 0 | 9 | 1 | 7 | 1 | 5 | 7 |
| **46** | Multi-city | 5 | Multiple | 1 | 1 | 1 | 5 | 1 | 5 | 7 | 1 |
| **47** | Multi-city | 9 | Economy | 2 | 0 | 5 | 9 | 1 | 7 | 1 | 5 |
| **48** | Multi-city | 1 | Premium economy | 0 | 1 | 9 | 1 | 5 | 1 | 5 | 7 |
| **49** | Multi-city | 5 | Business | 0 | 0 | 1 | 5 | 7 | 1 | 7 | 1 |
| **50** | Multi-city | 9 | First | 1 | 1 | 5 | 9 | 1 | 5 | 1 | 5 |
| **51** | Multi-city | 1 | Multiple | 2 | 0 | 9 | 1 | 5 | 7 | 1 | 7 |
| **52** | Multi-city | 5 | Economy | 0 | 1 | 1 | 5 | 7 | 1 | 5 | 1 |
| **53** | One-way | 1 | First | 1 | 0 | 9 | 5 | 1 | 7 | 5 | 1 |
| **54** | One-way | 1 | Multiple | 2 | 1 | 1 | 9 | 5 | 1 | 7 | 5 |
| **55** | One-way | 5 | Economy | 0 | 0 | 5 | 1 | 7 | 5 | 1 | 7 |
| **56** | One-way | 9 | Premium economy | 0 | 1 | 9 | 5 | 1 | 7 | 5 | 1 |
| **57** | One-way | 1 | Business | 1 | 0 | 1 | 9 | 5 | 1 | 7 | 5 |
| **58** | One-way | 5 | First | 2 | 1 | 1 | 1 | 7 | 5 | 1 | 7 |
| **59** | One-way | 9 | Multiple | 0 | 0 | 5 | 1 | 1 | 7 | 5 | 1 |
| **60** | One-way | 1 | Economy | 1 | 1 | 9 | 5 | 1 | 1 | 7 | 5 |
| **61** | One-way | 5 | Premium economy | 2 | 0 | 1 | 9 | 5 | 1 | 1 | 7 |
| **62** | One-way | 9 | Business | 0 | 1 | 5 | 1 | 7 | 5 | 1 | 1 |