AirBnB

Test plan

1. Introduction
   1. **Purpose of this Test plan**

The purpose of this document is to specify performance requirements and conditions for Airbnb application. The document will outline the Soak Test scenarios, test cases, parameters and data used in evaluating the capacity of the included features.

* 1. Test plan identification

|  |  |
| --- | --- |
| Application Name | AirBnB |
| Phase of the testing | 1 |
| Test Cases | * Search hotels   Search operation  Search according to the criteria (Location, check-in check- out dates, guests count)   * Apply filters by price range, type of place, rooms and beds, property type, etc. * View the property * Book the property * Check the booking * Leave feedback |
|  |  |

1. Test description
   1. Test objectives
      1. Check test scripts workability
      2. Check application’s availability on selected environment
      3. Get basic response time for each tested item with no load
      4. Define capacity in term of number of concurrent virtual users
      5. Get basic results of system counters from all involved servers
   2. Items to be tested

|  |  |  |
| --- | --- | --- |
| Item | Action | Notes |
| Open main page | Page load request |  |
| Choose a currency | Choose a currency |  |
| Search operation | Search any geolocation |  |
| Search according to criteria | Select preferred location, check-in & check- out dates, guests count |  |
| Search by section | Select any of the following sections: Bed & breakfasts, Shared homes, Skiing, Castles, Beach, etc. |  |
| Filtering | By any of the following:  price range, type of place, rooms and beds, property type, etc. |  |
| View the property | Page load request |  |
| View all photos | Page load request |  |
| View customers reviews | Show all reviews |  |
| Save property | Add to Wishlist | For logged-in users only |
| Reserve | Book, pay | For logged-in users only |
| Cancel booking | Cancel booking | For logged-in users only |
| Edit booking | Edit start/end date | For logged-in users only |
| Contact Host | Send a message | For logged-in users only |
| Leave feedback | Rate & write a review | For logged-in users only |

* + 1. Search hotels

This is the first page after entering the application.

Main operations:

Opening – load the main page and click search button.

Search – complete destination field, click search icon

* + 1. Search according to the criteria

This is the first page after entering the application.

Main operations:

Opening – load the main page and click search button.

Select random region from “Search by region tab”

Select random Check-in date from the calendar

Select random Check-out date from the calendar

Select guests count from “Who” section

Search – click search icon

* + 1. Search by section

Main operations:

Load the main page and click random section from predefined data (Bed & breakfasts, Shared homes, Skiing, Castles, Beach, etc.)

* + 1. Filtering

Filtering by any enabled field using predefined data.

* + 1. View the property

Main operations:

Open random item

View all photos

* + 1. View customers reviews

Main operations:

Open random item

Click “View reviews”

* + 1. Save property

Open random item

Add to Wishlist

* + 1. Reserve

Open wish list

Click random item

Reserve the property

* + 1. Cancel reservation

Open messages

Open an email from the predefined host

Click “Change or cancel reservation” button from the reservation details section

Click “Cancel reservation” button

Select a random reason for cancelation & proceed the cancelation

* + 1. Edit booking

Open messages

Open an email from the predefined host

Click “Change or cancel reservation” button from the reservation details section

Click “Change reservation” button

Edit reservation

* + 1. Contact host

Open random property

Click “Contact Host” button

Type a message and click “Send message”

* + 1. Leave a review

Open the messages section

Select “Leave a review” for a host  
Type a message

Rate by sections

Submit review

* 1. Items not to be tested
     1. Functionality of the host side
     2. Features which are not listed in the “Items to be tested” table.
  2. Test data

1. Common set of users
2. Sets of onboarded property of different types, geolocation, prices.
   1. Test users’ roles

Anonymous users

Subscribed users

1. Non-Functional requirements

With regard to absence of defined NFR at the start of the performance testing as preliminary the following indicators may be the following:

|  |  |  |
| --- | --- | --- |
| **NRF** | **Value** | **Notes** |
| *Number* of **virtual users** | 150.000.000 | 100 000 000 subscribed and 50 000 000 anonymous |
| *Number of* **onboarded property** | 3 000 000 |  |
| *Number* of reservations per second | 35 |  |
| *Average response time* for **each transaction** | < 3 sec |  |

1. Suspension criteria and resumption requirements
   1. Suspension criteria
      1. Test environment issues (not ready, any trouble with accessing to it etc.)
      2. Not stable version of the application
      3. Test data issues (no test user or wrong credentials, incomplete data)
      4. Significant changes in workflow of functionality of the application which require updates in the test plan or scripts/scenarios
      5. Testing tools issues (load generation, monitoring)
   2. Resumption criteria
      1. Test plan is complete/updated and approved by Company and the client.
      2. Correct version is installed in performance testing environment, i.e. the version previously functionally tested and fixed if needed
      3. Test data is complete and in the performance testing environment in sufficient time to allow test scripts to be completed.
      4. Test accounts have been created in the performance testing environment in sufficient time to allow test scripts to be completed.
      5. Test scripts complete.
      6. All assigned resources are available to monitor the test.
      7. All parameter sets used in the script are generated based on the Database values.
2. Test deliverables

Main expected test deliverables are:

1. Test plan
2. Basic test scripts and scenarios
3. Baseline of main metrics for deployed functionality: response times for the pages, system resources consuming
4. Performance indicators needed for NFRs definition
5. Testing tasks
   * 1. Basic scripting
     2. Basic scenarios creation
     3. Setting up load generation tools
     4. Setting up monitoring and collecting tools
     5. Deployment stable version to environment
     6. Smoke testing
     7. Running set of performance testing:
        1. Capacity
        2. Regular load test (after definition of capacity)
        3. Volume
        4. Durable (stability)
        5. Scalability (?)
6. Monitoring Metrics

During the performance testing the following metrics and statistics will be included in the reports:

* Response Time (average, median, 95th percentile)
* CPU usage
* Memory Usage
* Total throughout
* Total passed / failed transactions
* Test environment

1. Test Environment

Test environment should be described in Airbnb strategy document.

1. Risks

Main risks are described in Airbnb strategy document.