

# Booking.com

Manual and Automation Testing

**Presented by:**

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**LET'S START**



# Why We Chose Booking.com for Testing

1. Public website with real traffic and real users
2. Each section uses **different logic, features, and integrations**
3. **Great for testing all levels:**
  - a. Automation
  - b. UI and component tests
  - c. Full user journey (end-to-end)
4. **Real bugs from real use cases — not fake or demo errors**



# Early Exploratory Test – Fake Credit Card Booking

- We used a **demo credit card** to simulate a hotel booking



- Booking.com accepted the fake card and confirmed the reservation

**Booking.com**

Booking Confirmation  
CONFIRMATION NUMBER: **4502.942.935**  
PIN CODE: **1937**

CHECK-IN	CHECK-OUT	ROOMS	NIGHTS
<b>9</b> MAY Friday ⌚ 15:00 - 00:00	<b>31</b> MAY Saturday ⌚ until 10:00	<b>3</b>	<b>/22</b>

**Motel Aviv (מלון אביב)**  
Address: Ofarim Lane 126 , Eilat, 88000, Israel  
מספרם 126, אילת  
Phone: +972 8 637 4660  
GPS Coordinates: N 029° 33.493, E 34° 57.166

**PRICE**  
3 rooms  
Price  
(for 12 guests) ₪ 44,430

The final price shown is the amount you'll pay to the property.  
Booking.com doesn't charge guests any reservation, administration, or other fees.  
Your card issuer may charge you a foreign transaction fee.

**Payment Info**  
This property accepts the following forms of payment: Visa, Mastercard

**Additional Info**  
Note that additional supplements (e.g. an extra bed) aren't added in this total.  
If you cancel, applicable taxes may still be charged by the property.  
If you don't show up for this booking, and you don't cancel beforehand, the property is liable to charge you the full reservation amount.  
Remember to read the **Important info** below – it could contain important details not mentioned here.

**Suite with Sea View**  
Guest name: Salman Khan  
Number of guests: 4 adults  
Meal plan: No meal is included in this room rate.  
Private bathroom • Balcony • Sea view • City view • Free toiletries • Air conditioning • Toilet • Bathtub or shower • Towels • Linens • Tile/Marble floor • Desk • TV • Refrigerator • Tea/Coffee maker • Microwave • Flat-screen TV • Kitchenware • Kitchenette • Electric kettle • Cable channels • Wake-up service • Wardrobe or closet • Dining area • Dining table • Upper floors accessible by elevator • Toilet paper

₪ 14,810  
**Prepayment :**  
You'll be charged a prepayment of the cost of the first night within 3 days of arrival.  
**Cancellation cost:**  
until May 5, 2025 11:59 PM [IDT]: ₪ 0  
from May 6, 2025 12:00 AM [IDT]: ₪ 820 –  
**Changing the dates of your stay isn't possible.**

# Early Exploratory Test – Fake Property Listing

- We created and submitted a **fake apartment** listing
- Could lead to **fraudulent bookings** and damage trust in the platform !

The screenshot shows a Booking.com search interface. The search bar contains 'Maaref Apartment :)' with a location dropdown set to 'Bir Hadaj, Israel'. The search date is 'Thu 4 Feb — Fri 7 Feb' and the guest count is '2 adults · 1 child · 1 room'. A large blue arrow points upwards from the bottom right towards the search results.

Booking.com

ILS ⚙️ List your property Your account Genius Level 1

Stays Flights Car rentals Attractions Airport taxis

Maaref Apartment :)

Thu 4 Feb — Fri 7 Feb

2 adults · 1 child · 1 room

Search

Home > Hotels > All luxury tents > Israel > South District Israel > Midreshet Ben Gurion > Maaref Apartment :)

Overview Tent info & price Facilities House rules Guest reviews (0)

**Maaref Apartment :)**

Bir Hadaj, Israel, 8491900 — [Great location - show map](#)

[Reserve your luxury tent stay](#)

[We Price Match](#)

Cheapest option at this property for 2 adults, 1 child

# Early Exploratory Test – Temp Mail Account Creation

- We successfully created an account with a temp-mail address

- This exposed a **security weakness** that allows **fake identities**.

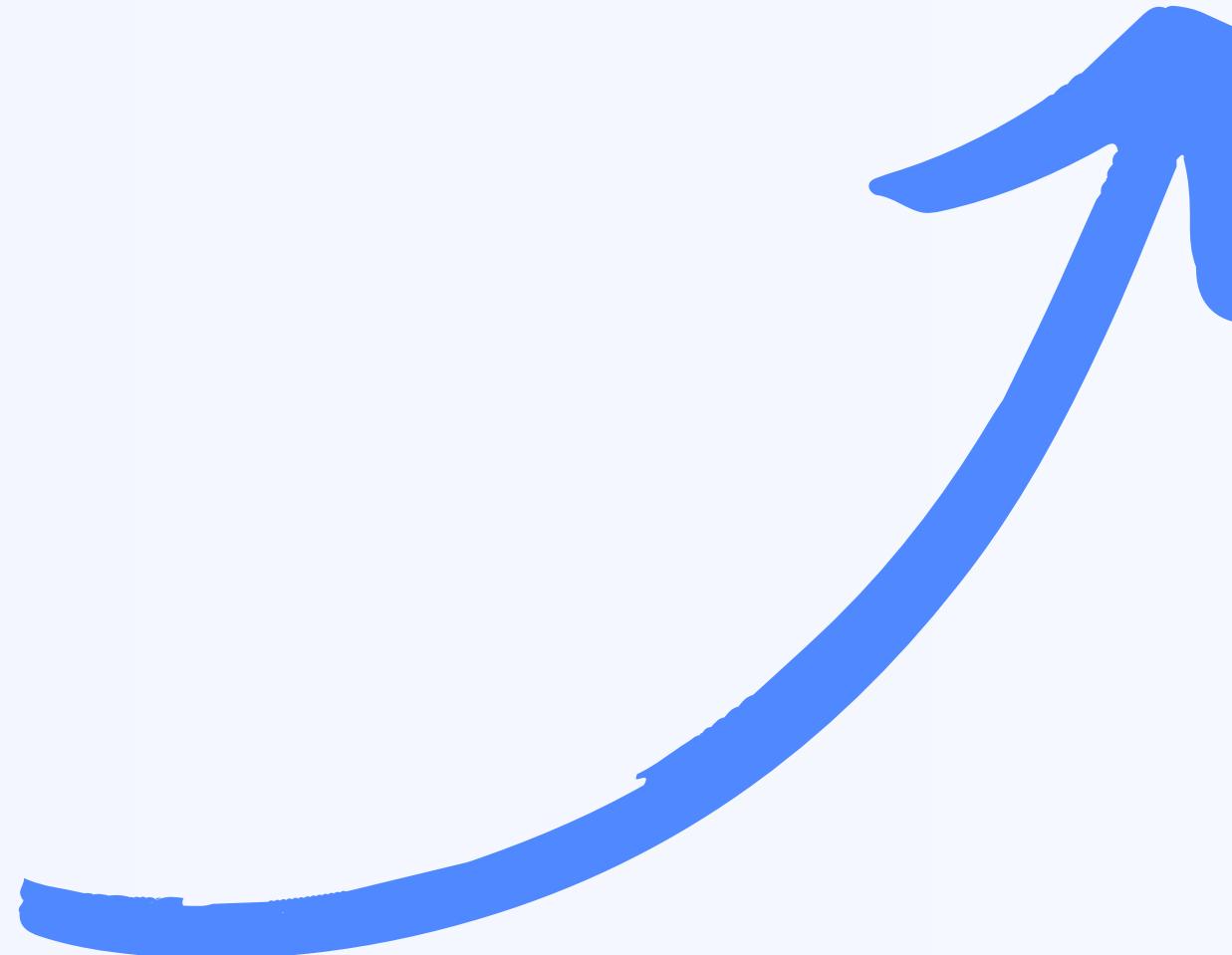
Booking.com

My account > Personal details

Personal details

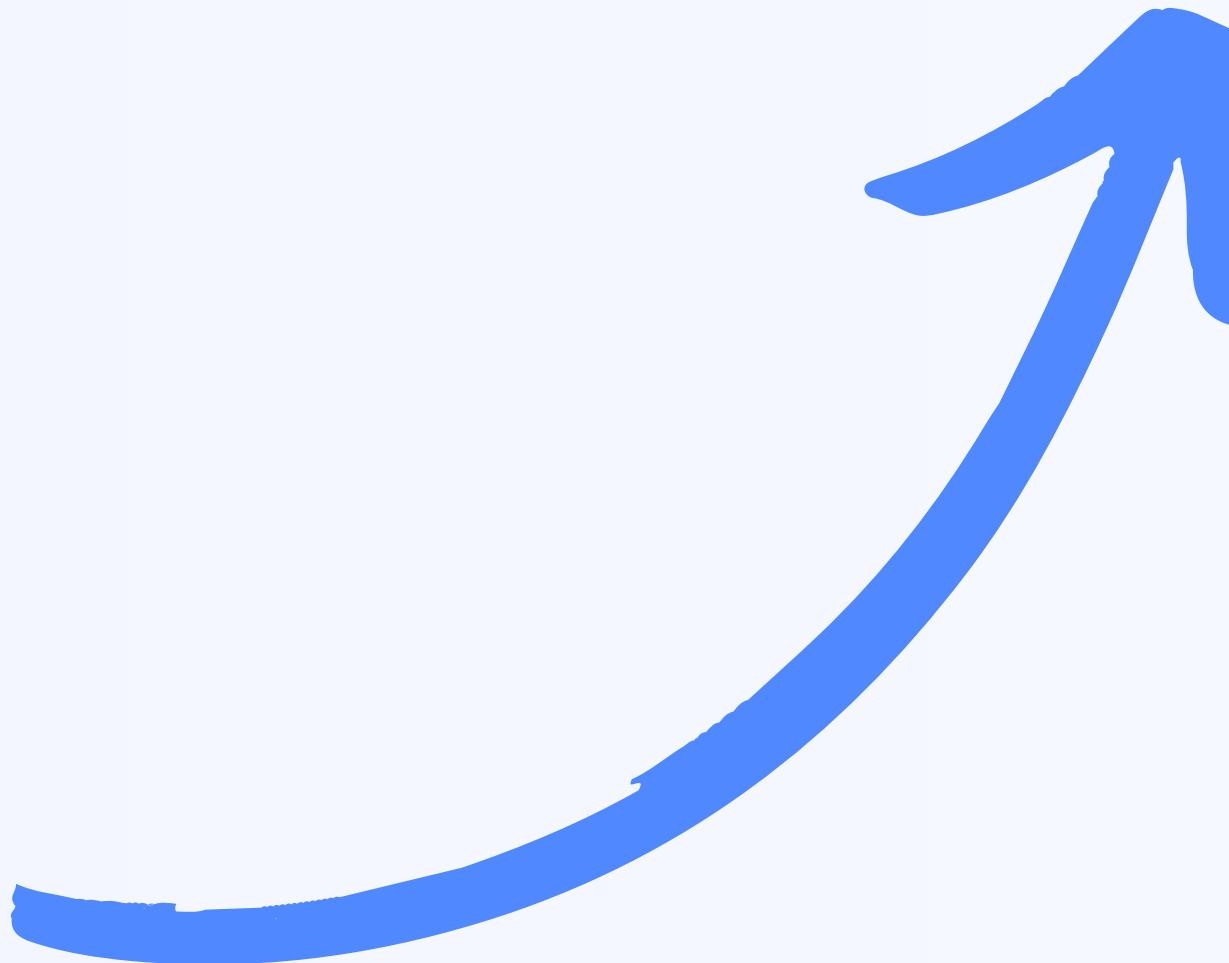
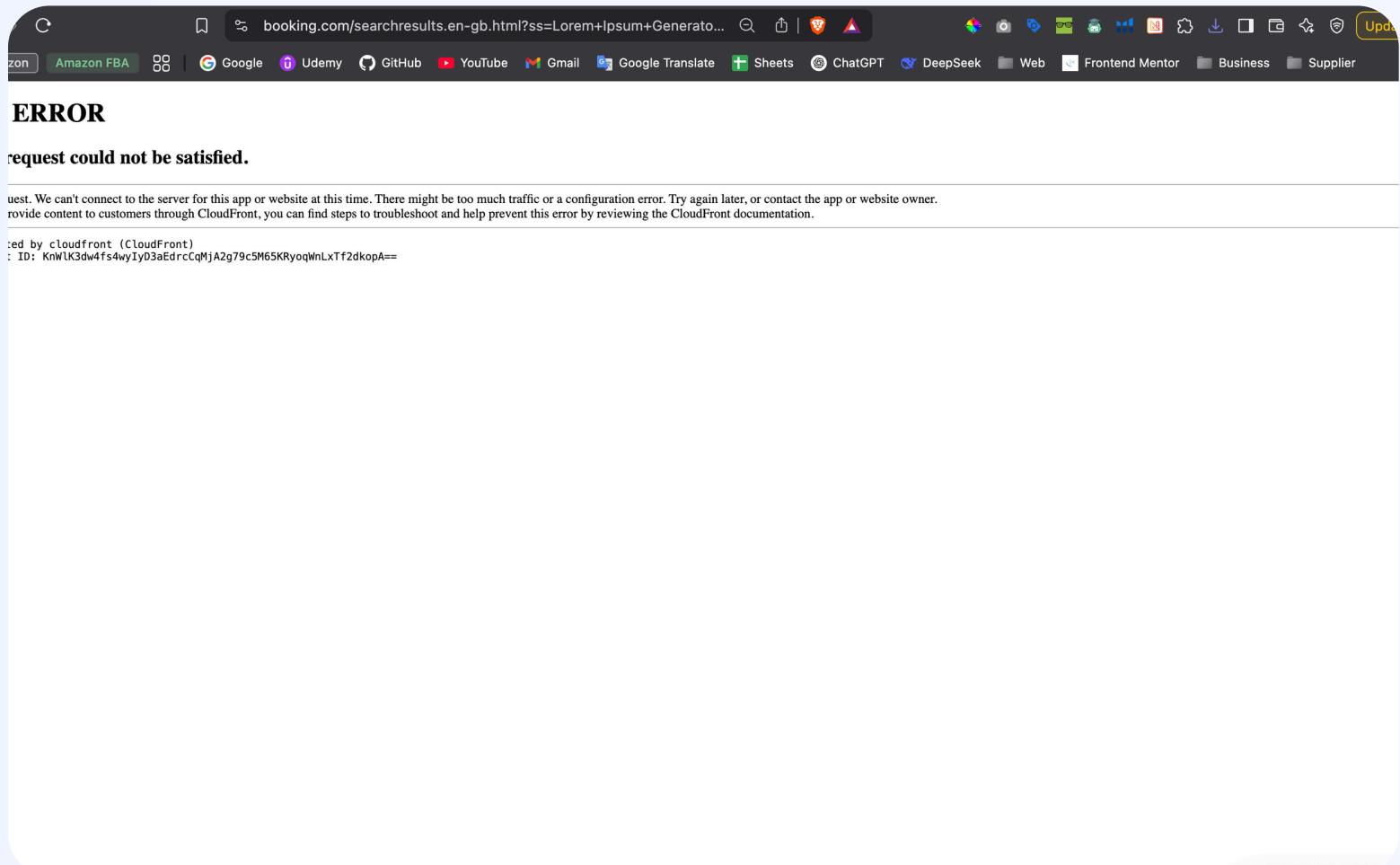
Update your information and find out how it's used.

Name	Let us know what to call you	Edit
Display name	Choose a display name	Edit
Email address	jowod44210@bocopies.com <span>Verified</span>	Edit
This is the email address you use to sign in. It's also where we send your booking confirmations.		
Phone number	Add your phone number	Edit
Properties or attractions you book will use this number if they need to contact you.		
Date of birth	Enter your date of birth	Edit
Nationality	Select the country/region you're from	Edit
Gender	Select your gender	Edit



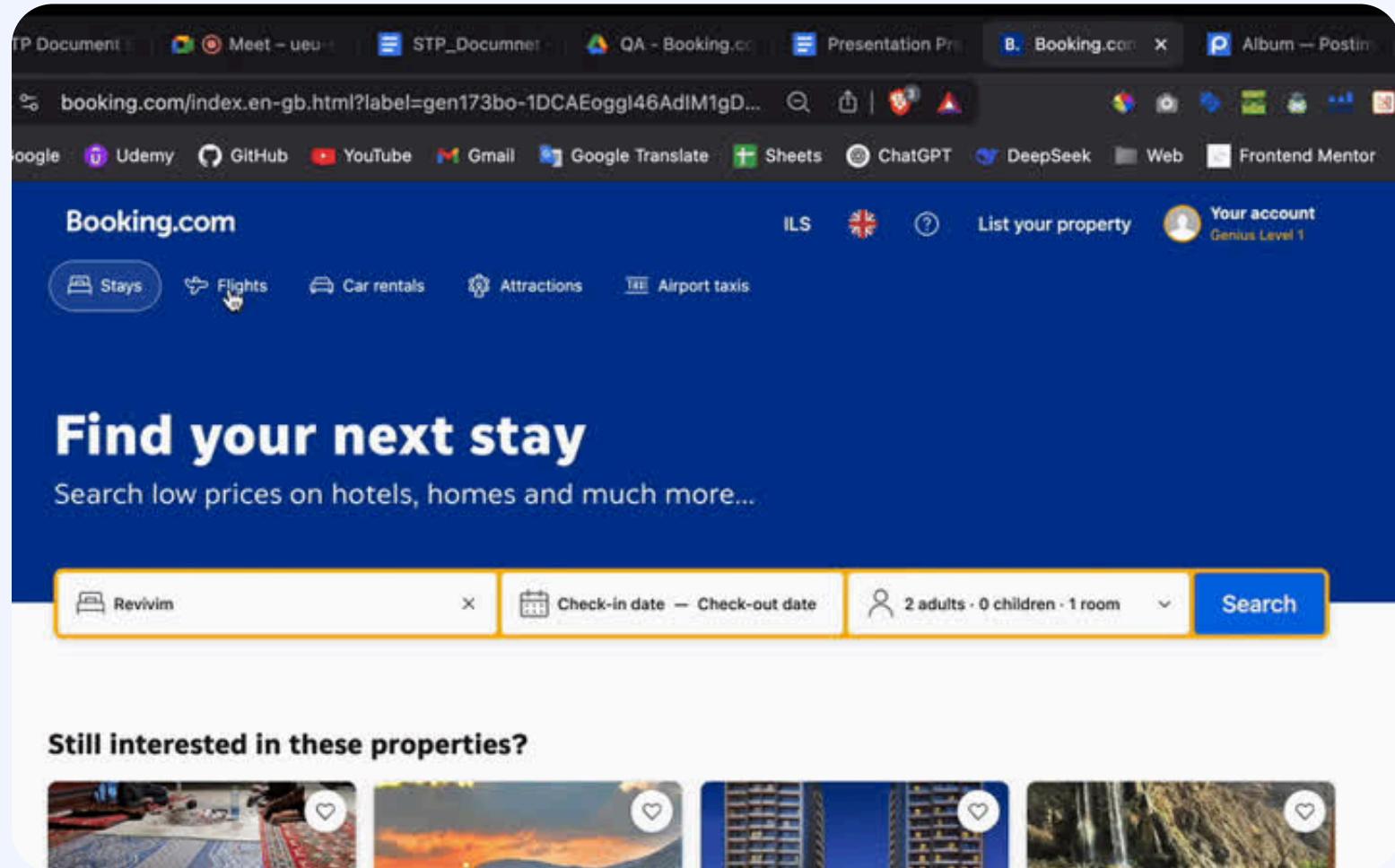
# Early Exploratory Test – Long Destination String Crash

- We tested the destination search input with very long text
- This could be exploited by any user (**accidentally** or **maliciously**).



# Early Exploratory Test – Flights Button Blocked in Israel

- We tested the Flights section from an Israeli IP address:
- This affects user experience and **breaks** a main navigation path.



# Business Impact Real Defects, Real Risks

**28M+** daily users — every defect costs **real money**.

**Fake** credit card bookings block **real rooms** and skip **cancellation fees**.

Fake property listings **mislead** users and **harm** brand trust.

Temp mail accounts allow **fraud, spam**, and **fake reviews**.

Long input **crashes** the site and opens doors to **malicious attacks**.

# What we did in this project



- ✓ Combined **Manual + Automation Testing**
- ✓ Focused on **Core Functionalities**
- ✓ Performed **Exploratory Testing**
- ✓ Wrote a detailed Test Plan (**STP**)
- ✓ Created **178 Test Cases (STD)**
- ✓ Built **Selenium Tests in Python**
- ✓ Validated Results and **Reported Bugs**

# STP – Software Test Plan

The main plan for the project.

## It includes:

### **What we will test (scope):**

“This **test plan** focuses on verifying the **main functional flows** across four Booking.com verticals: **Stays, Car Rentals, Attractions, and Airport Taxis**. Due to geo-blocking limitations, the **Flights** module is **excluded** from this testing cycle.”

# STP – Software Test Plan



## What's most important (priorities):

1. **Bug Fix Verification:** Ensure reported bugs are resolved and don't reappear.
2. **User Authentication:** Block fake/temporary emails and validate users.
3. **Navigation Testing:** Confirm all links, buttons, and logos work correctly.
4. **Input Validation:** Prevent invalid data (e.g., emails, credit cards).
5. **Listing Verification:** Stop fake hotel listings from being approved.

# STP – Software Test Plan



## Dates and deadlines:

Tasks	Start Date	End Date	Personnel
Unit Testing	February 20, 2025	February 21, 2025	2 QA Engineers
Integration Testing	February 20, 2025	February 24, 2025	2 QA Engineers
User Acceptance Testing (UAT)	February 22, 2025	February 22, 2025	2 QA Engineers
Performance Testing	February 23, 2025	February 23, 2025	2 QA Engineers

# STP – Software Test Plan



## Who is doing what (team roles) & Devices:

Team Roles	Devices
 <b>Bashar</b> Test Manager Oversees testing strategy, coordinates with teams, ensures project objectives are met.	 Testing will be performed on a range of devices, including a MacBook Air and Lenovo Lg 15.
 <b>Rami</b> Test Lead Manages test execution, assigns tasks, reviews test cases, ensures quality standards.	 Operating Systems: macOS Sonoma 14.4.1 and Windows 11 Pro 24H2.
 <b>Rami</b> Test Engineer Designs and executes test cases, reports defects, performs functional and regression testing	 Browsers: Chrome and Brave.
 <b>Bashar</b> Automation Test-Engineer	 Mobile simulations via Chrome Developer Tools; also-tested on iPad and Samsung Galaxy Tab.

# STP – Software Test Plan

A full list of tests (test tree). – only part of some test sections:

## 1 – Tests Tree

### 1 – Login :

- 1.2 Enter email.
- 1.3 Click on the login button.
- 1.4 Sign in with the Google button.
- 1.5 Sign in with the Apple button.
- 1.7 Terms & Condition link.
- 1.8 Privacy statement.
- 1.9 Select your language button.
- 1.10 Help and support button



# STD – Software Technical Document

This turns the STP plan into detailed test instructions.

For each feature, it lists:

What must be set up before testing:

## Pre-conditions

Pre-condition ID	Pre-condition Description
P1	The user must have access to the Booking.com website/app.
P2	The user must have a device capable of accessing the internet (PC, smartphone, tablet)
P3	The user must be logged into their account (if required)
P4	The user's device must have a supported browser (Chrome, Safari, Firefox, Edge, etc.)

...



# STD – Software Technical Document

What appears on the screen (UI elements):

User Interface Elements :			
	UI Element	Type	Description
	Search Bar	Input field	Allows users to enter search criteria (destination, dates, number of guests).
	Navigation Bar	Horizontal menu	Provides links to sections like Hotels, Flights, Car Rentals, Deals, etc.
	Filters	Dropdown, checkboxes, sliders	Lets users filter search results based on price, ratings, amenities, etc.
	Accommodation Listings	Card/List view	Displays search results with accommodation details like name, price, and rating.
	Booking Button	Button	Takes users to the booking page to finalize their reservation.



# STD – Software Technical Document

## What kind of inputs are valid:

 **Valid Input Example:** Test Case ID: TC\_063

- **Scenario:** Full Guest Name Field Validation (Positive)
- **Test Data:** Bashar Mamer
- **Expected Result:** The full guest name field should accept the name and proceed to the next section.
- **Status:** **Pass**



# STD – Software Technical Document

What kind of inputs are Invalid:

✗ Invalid Input Example

- **Test Case ID:** TC\_064
- **Scenario:** Full Guest Name Field Validation (Negative)
- **Test Data:** 12345, !@#
- **Expected Result:** An error message should appear indicating that the name is invalid.
- **Actual Result:** The full guest name field accepted the invalid input.
- **Status:** **Fail**



# STD – Software Technical Document



**What data is needed to run the test correctly:**

📌 **Example from STD – Required Test Data**

- **Test Case ID:** TC\_057
- **Scenario:** Booking Form – Payment Information Validation
- **Required Data:**
  - - **Cardholder Name:** Rami Abo
    - **Card Number:** 5555 5555 5555 4444 (demo card)
    - **Expiry Date:** 12/29
    - **CVV:** 123
    - **Billing Country:** Israel
    - **Amount:** ₪4135
    - **Currency:** ILS
    - **Browser Language:** English (US)

# Component Testing

- Tested individual parts of the user interface.
- Example of tested component:
  - Email input field validation: (@, .com/org/...)

**Sign in or create an account**

You can sign in using your Booking.com account to access our services.

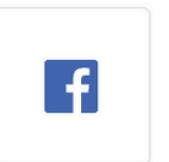
Email address

Enter your email address

Continue with email



or use one of these options



By signing in or creating an account, you agree with our  
[Terms & conditions](#) and [Privacy statement](#)

All rights reserved.  
Copyright (2006 - 2025) - Booking.com™

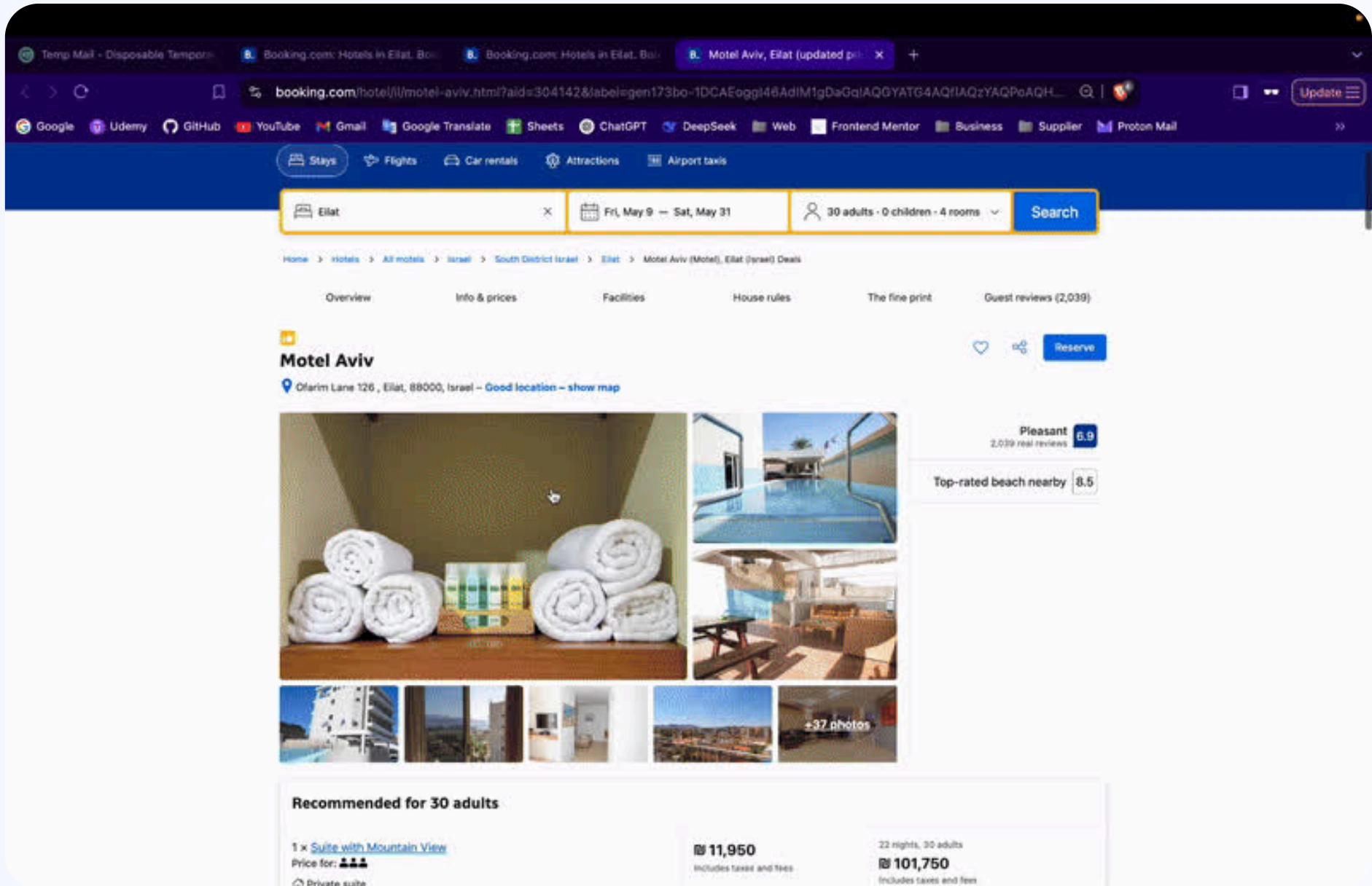
# Integration Testing

- Checked how two or more components work together.
- Example:
  - The **search bar** must:
    - Send the search term correctly to the **results grid**.

The screenshot shows the Booking.com website interface. At the top, there are navigation links for Stays, Flights, Car rentals, Attractions, and Airport taxis. The search bar is highlighted with a red box, showing the location "Eilat" and the dates "Sat 3 May — Sat 10 May". Below the search bar, the breadcrumb navigation shows Home > Israel > South District Israel > Eilat > Search results. A map of Eilat is displayed with markers for Azrieli Mall Hayam, SHAHAMON, and Dekel Beach. The main search results are titled "Eilat: 196 properties found" and are sorted by "Top picks for long stays". A note indicates that 73% of places are unavailable. The results grid features a listing for "Motel Aviv" with a review score of 6.8, 2,038 reviews, and a price of ₪ 2,000. The listing includes details about the location (300 m from centre, 950 m from beach), room type (Basic Triple Room with Three Single Beds, 3 single beds), and availability (Only 6 rooms left at this price on our site). The "See availability" button is visible at the bottom right of the listing.

# System Testing

- Checked how two or more components work together.
- Example:
  - The **search bar** must:
    - Send the search term correctly to the **results grid**. Ran full user flows across the platform.
    - Example flow:
    - Search → Select Hotel → Checkout
    - Used live payment stubs to simulate real transactions.
    - Made sure that:
    - Data stays correct
    - User sessions work

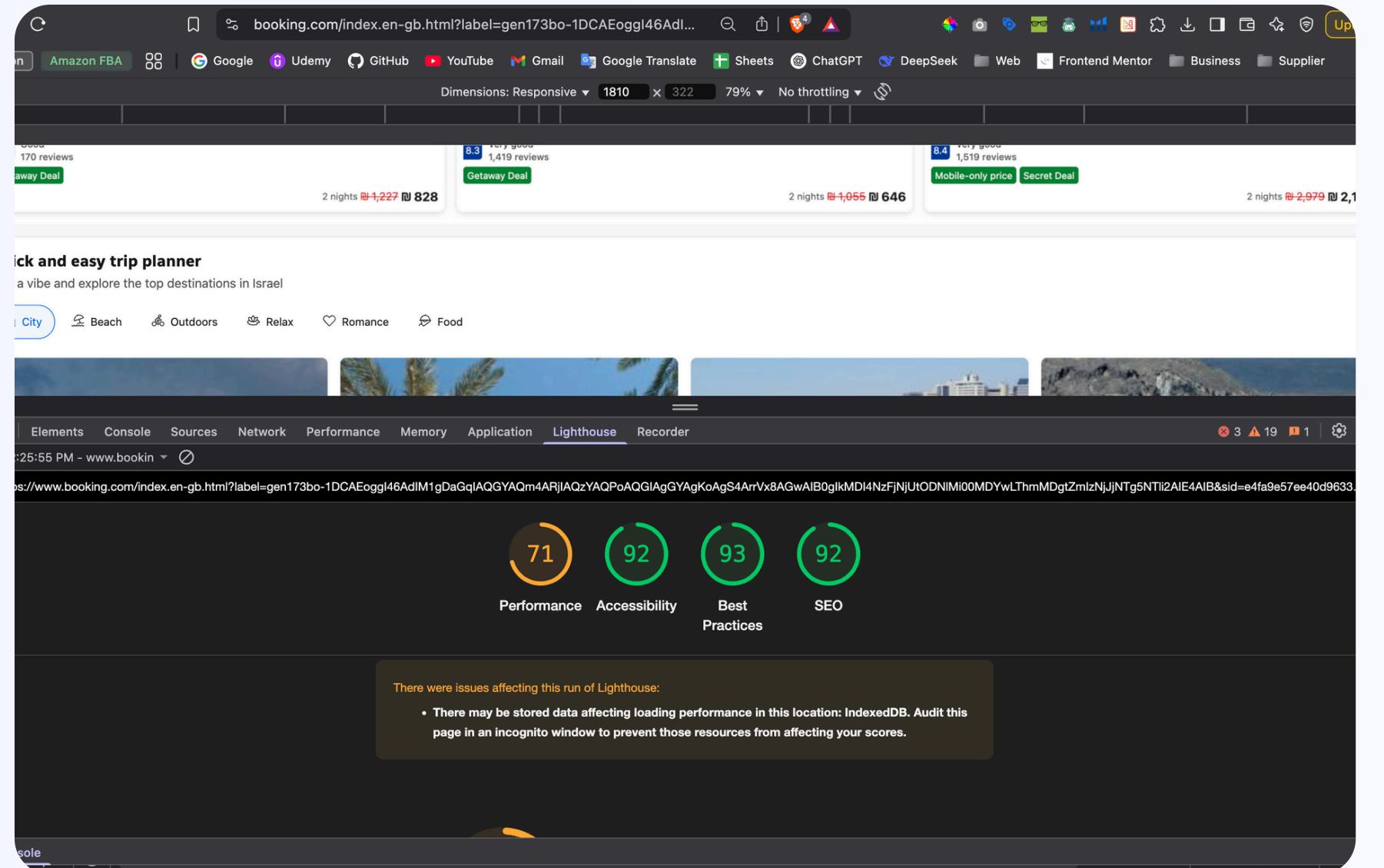


# User Acceptance Testing (UAT)

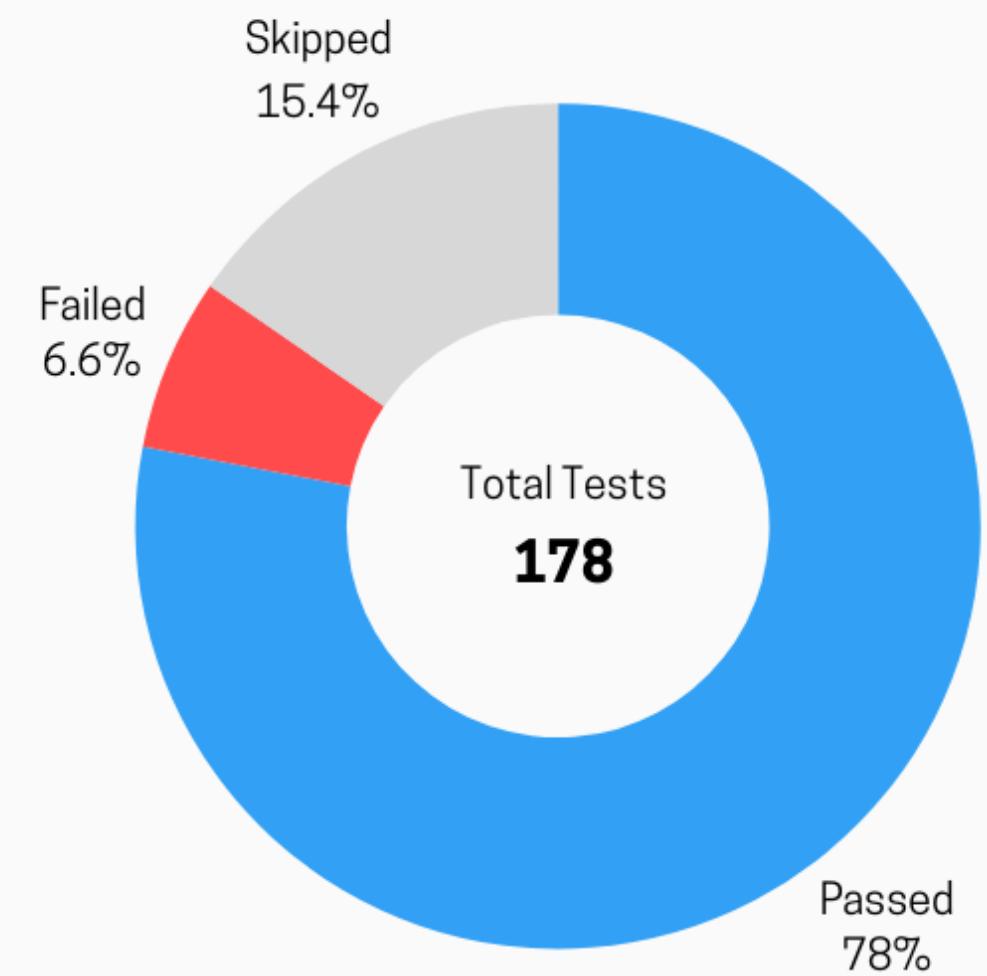
- Simulated real user behavior and business needs.
- Checked high-level rules like:
  - You can't book more people than allowed in a room
  - Temporary/fake email addresses are blocked
  - Price details are shown clearly

# Non-Functional Testing

- Ran these tests at the same time as functional tests:
- **Localisation Testing** – made sure the site works in different languages and regions.
  - Found issues: Flights section in Israel doesn't work.
- **Accessibility Testing** – checked if the site works for users with disabilities.
  - Found issues: ✗ Missing ALT text on images, ✗ No accessibility button



# Test results:



**SUCCESS RATE (%)**

**79.77%**

**FAILURE RATE (%)**

**6.74%**



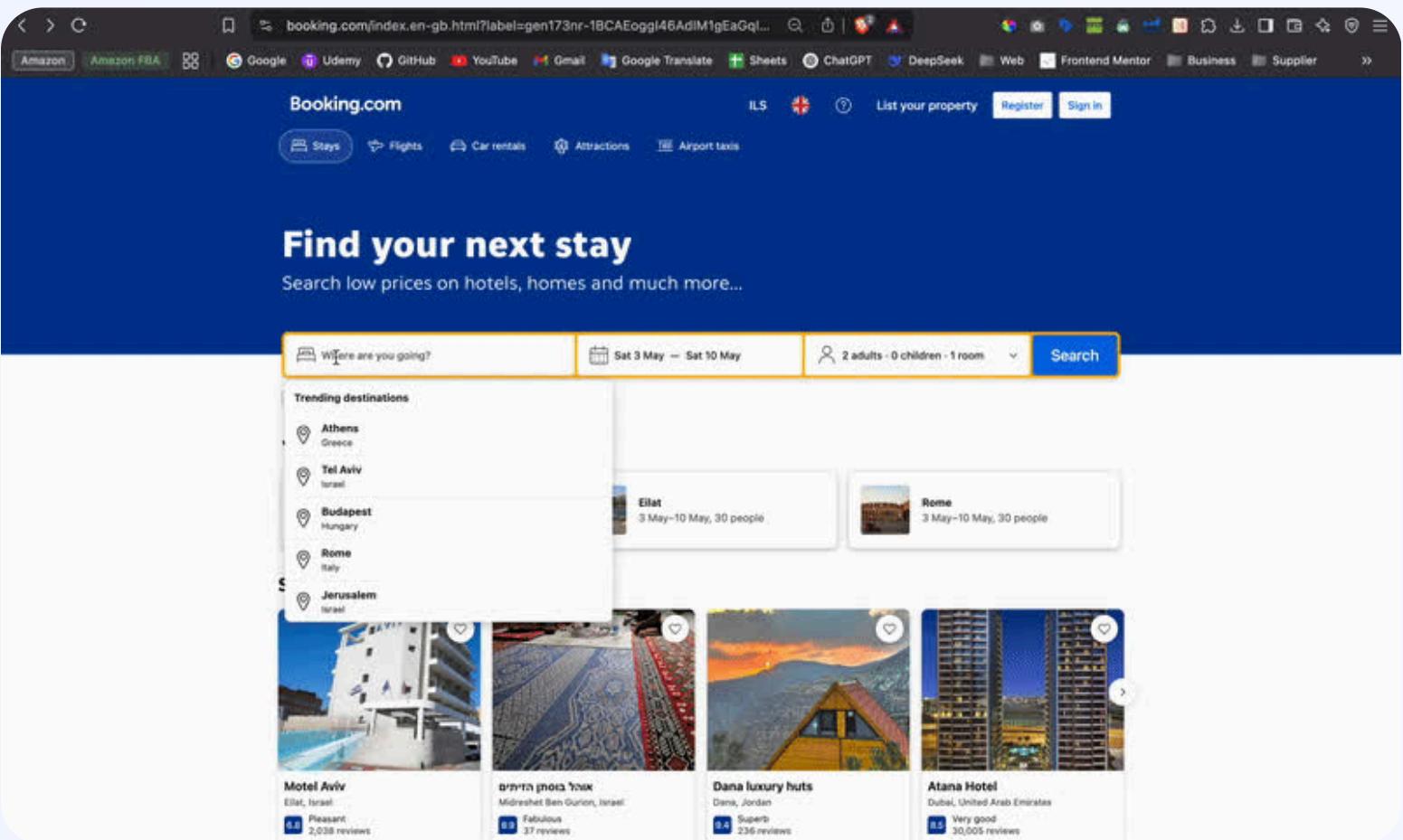
# Critical and Major Bugs

Overview of High-Severity Defects

- The test team found 12 total bugs.
- Only 4 of them are marked Critical or Major.
- These are serious because they:
  - Break important flows
  - Or create security risks

# Critical and Major Bugs – Cont.

- Critical Defect – Stays Search Crash (TC\_005)



- Why it's serious:

- Any user can crash the page with long input – no error handling
- Allows malicious input (e.g., SQL injection) – security risk
- Hotel name input has no max length, which makes no practical sense

- Severity: Critical

# Critical and Major Bugs – Cont.

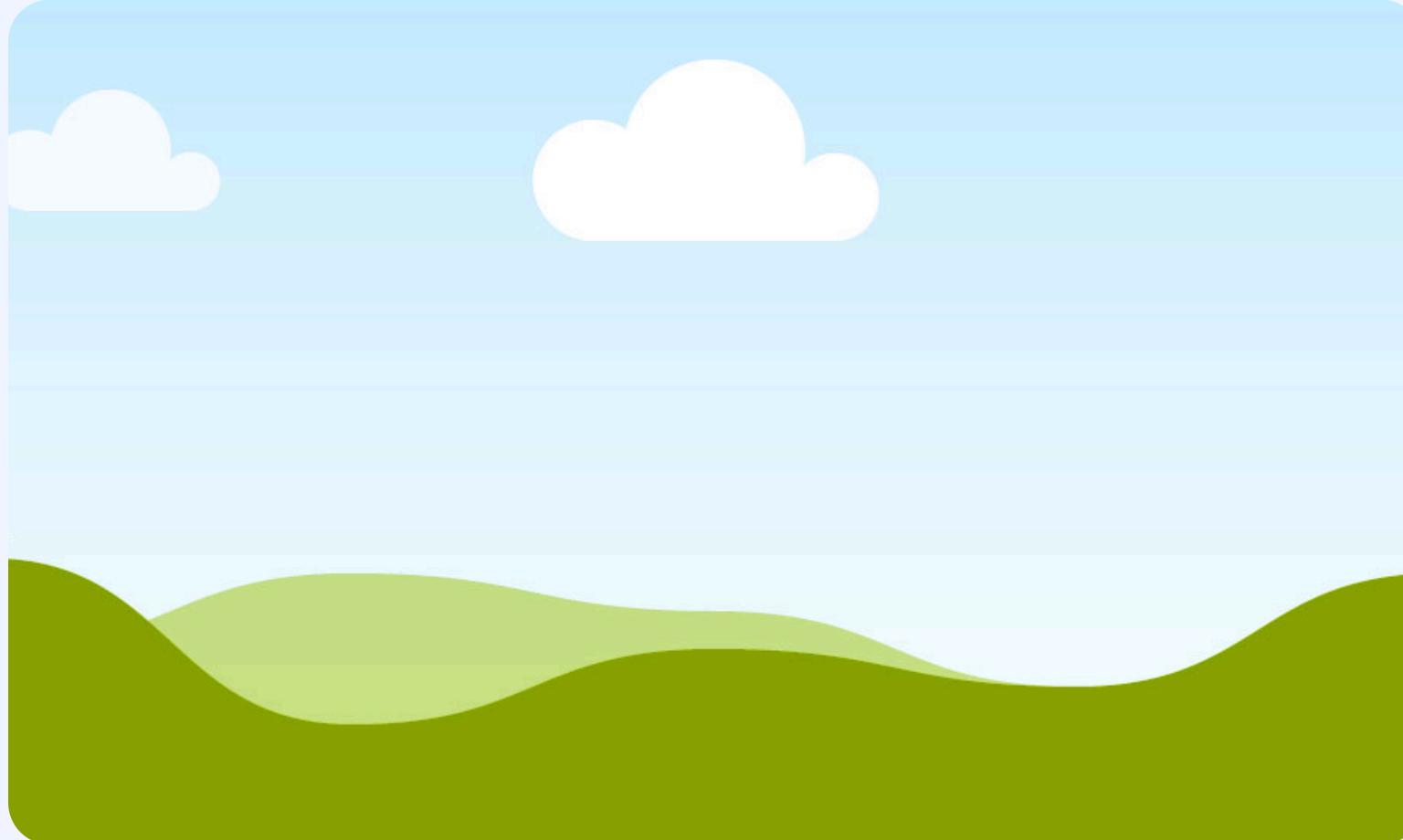
- **Major Defect – Registration Allows Fake Emails (TC\_06)**

The screenshot shows the 'Personal details' section of the Booking.com account settings. On the left, a sidebar lists options like 'Personal details', 'Security settings', 'Other travellers', 'Customisation preferences', 'Payment methods', and 'Privacy and data management'. The main area is titled 'Personal details' and contains fields for Name, Display name, Email address, Phone number, Date of birth, Nationality, and Gender. The 'Email address' field is highlighted with a red border, containing the value 'jowod44210@bocopies.com' with a green 'Verified' badge. A note below the email says, 'This is the email address you use to sign in. It's also where we send your booking confirmations.'

- **Why it's serious:**
  - This allows fake accounts, which is a security risk.
- **Severity: Major**

# Critical and Major Bugs – Cont.

- **Medium Defect – Child Car Seat Request Fails (TC\_08)**



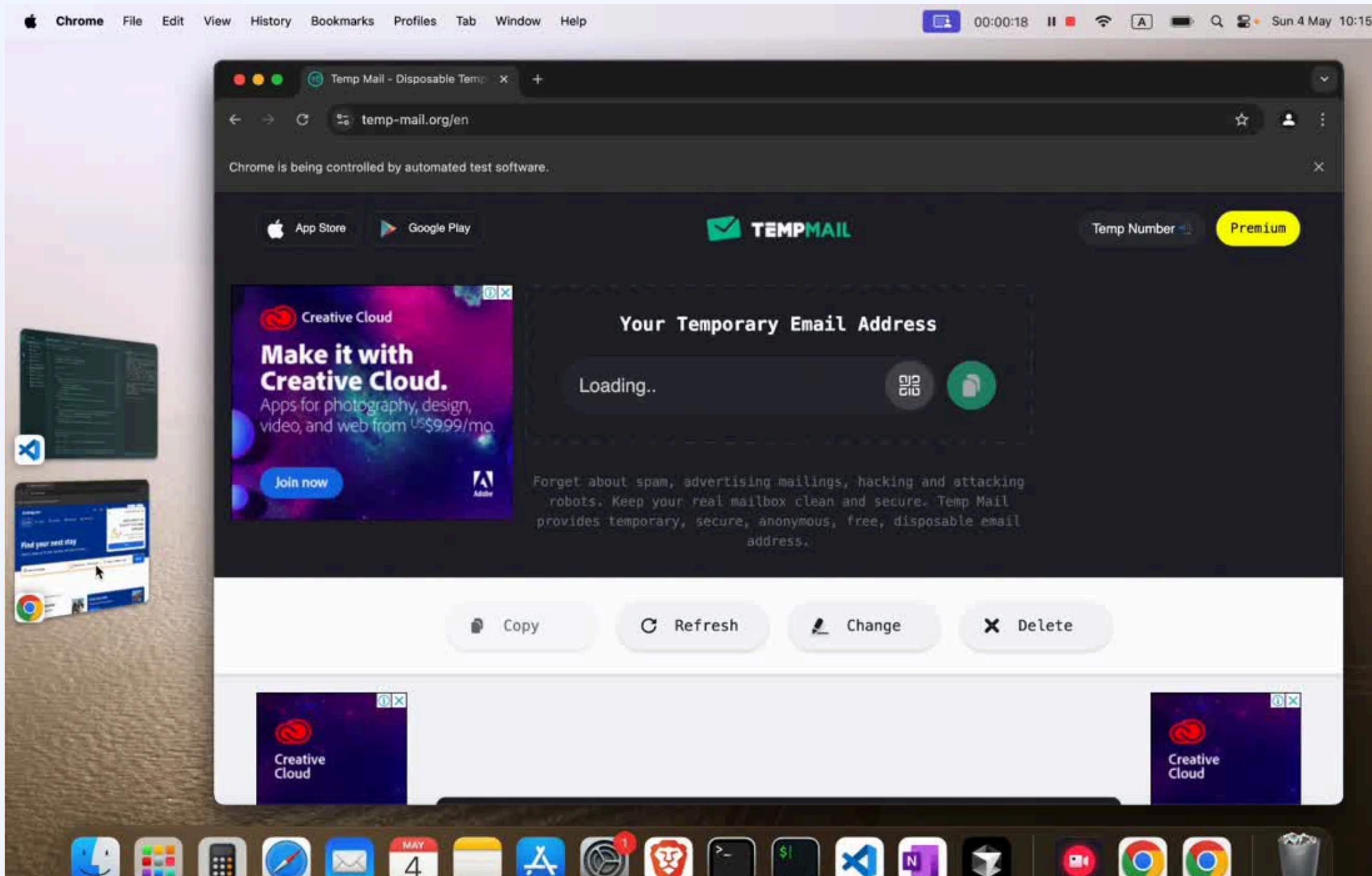
- **What happened:**
  - User selected a 4-seat taxi and added 6 child seats total, but the system still allowed checkout.
- **Why it's serious:**
  - Leads to overbooking, confuses users, and violates business rules, even though the page doesn't crash.
- **Severity: Medium**

## Automation

**Remember how  
long it took to run  
each test manually?**

# Automation

You'll see how we now run all tests at once – with one click:



# Github

- Each of us worked on a different part of the project – in parallel
- We used GitHub to share our code and updates
- Every time someone made changes, GitHub ran all our tests automatically
- We all used the same setup thanks to a file called `requirements.txt`:
  - It tells the computer what tools and versions to install
  - So the tests always work the same – for us and for the machine

# Jira

Projects

Booking.com ...

Summary Timeline Board List Forms Code Archived work items Pages Shortcuts +

Search board Filter Group ...

TO DO 4

- Enter More than 1000 Characters in the Destination Field BC-8
- Check if Taxis Can Be Sorted by Price BC-11
- Car Type Information Button BC-15
- TC\_08 – Request a Child Car Seat (Negative) BC-16

IN PROGRESS 4

- Enter special characters in the destination field (Negative) BC-7
- Full Guest Name Field Validation BC-9
- Check if Taxis Can Be Sorted by Passenger Capacity BC-12
- Apply Passenger Capacity Filter BC-13

DONE 4 ✓

- Register with a blocked email domain BC-3
- Enter an invalid destination/hotel name/city/country (Negative) BC-5
- Click on "Flights" in the navigation menu BC-4
- Enter numeric characters in the destination field (Negative) BC-6

+ Create Quickstart X

# How The Automation Can Help

- After the development team finishes writing the code, we need to make sure older features still work.
- Features that were already tested by automation must not break in the new version.
- With one click, developers can run the automated tests we prepared.
- Within seconds, they get the results — no need to wait for a QA tester to manually check everything again.
- This process:
  -  Saves time
  -  Saves money (testers don't have to repeat the same tests again and again)
  -  Reduces human error (automated tests don't forget steps)

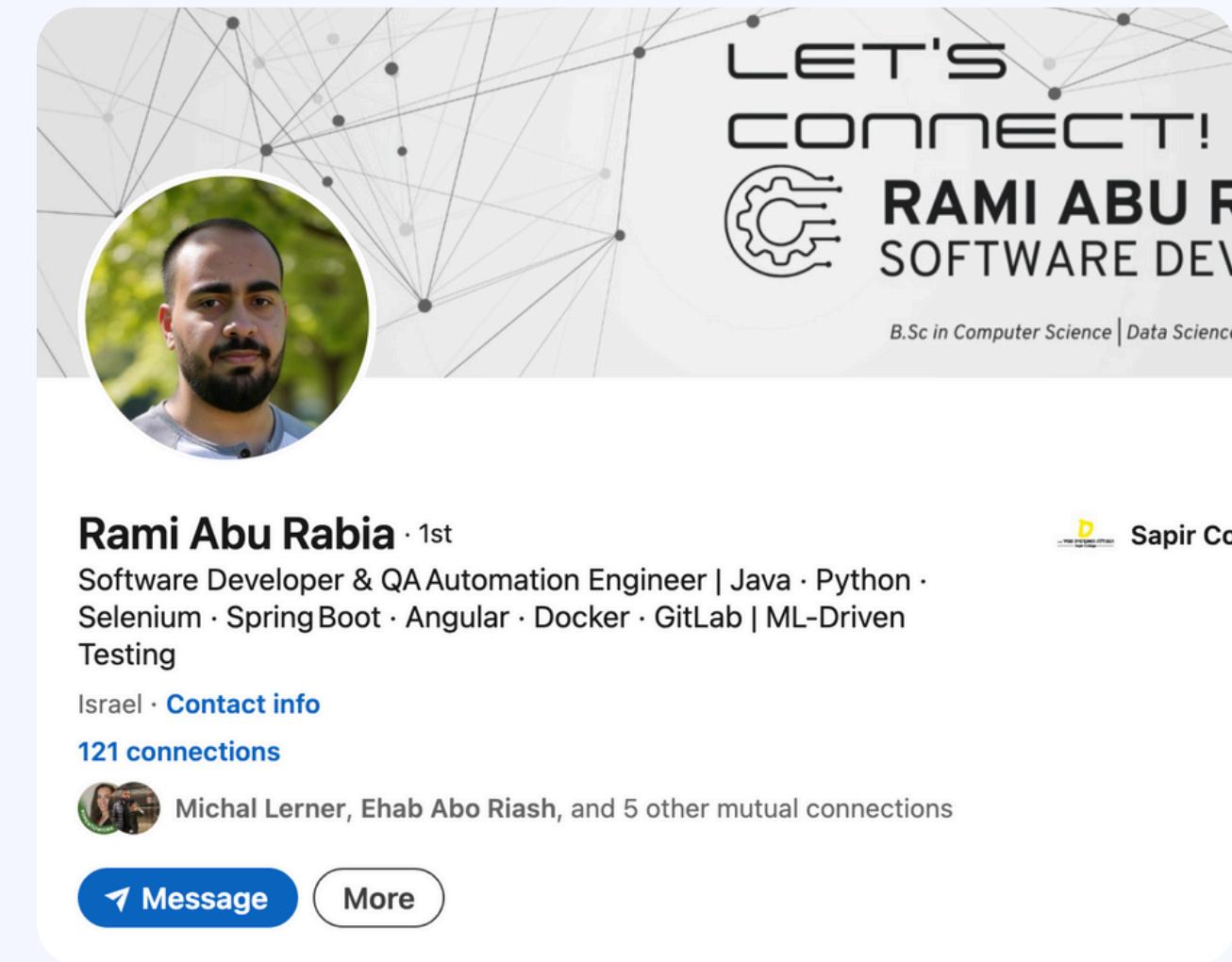
# Challenges We Faced

- Some parts of the page loaded late, so the test couldn't find them right away
- Location-based settings changed which buttons were shown
- **CAPTCHA** sometimes blocked our automated tests
- We had to deal with inconsistencies between real and fake test data
- Different browsers showed the layout slightly differently, which affected some tests

# Follow us on LinkedIn now – so when we're CEOs, you can brag you knew us early.



A screenshot of a LinkedIn profile for Bashar Abu Meamar. The profile picture shows a man with a beard wearing sunglasses and a white t-shirt, set against a background of fluffy white clouds. A circular badge in the bottom right corner of the photo area contains the text "#OPENTOWORK". Below the photo, the name "Bashar Abu Meamar" is displayed in bold black text, followed by a blue button with the text "Add verification badge". Underneath the name is a summary: "Software Engineer | Digital Marketing | Amazon FBA Seller | QA Automation | Python, Jira, API, Scrum". It also includes the location "Be'er Sheva, South District, Israel" and a "Contact info" link. At the bottom of the profile, there are four buttons: "Open to", "Add profile section", "Enhance profile", and "Resource".



A screenshot of a LinkedIn profile for Rami Abu Rabia. The profile picture shows a man with a beard looking directly at the camera. The background of the profile header features a network of interconnected dots on a light gray background. To the right of the profile picture, the text "LET'S CONNECT!" is written in large, bold, black capital letters, followed by "RAMI ABU RABIA" and "SOFTWARE DEVELOPER". Below this, it says "B.Sc in Computer Science | Data Science". At the bottom right of the profile header, there is a small logo for "Sapir Co." with a yellow 'D' icon. The main profile information includes the name "Rami Abu Rabia" with a "1st" connection indicator, a summary mentioning "Software Developer & QA Automation Engineer | Java · Python · Selenium · Spring Boot · Angular · Docker · GitLab | ML-Driven Testing", the location "Israel", a "Contact info" link, and "121 connections". Below the connections, there is a list of mutual connections: "Michal Lerner, Ehab Abo Riash, and 5 other mutual connections". At the bottom, there are two buttons: "Message" and "More".



**Thanks! Got a  
question? Ask  
ChatGPT, not us we're  
still Googling stuff.**