Senior QA and Automation Engineer – Assessment Response

# Section 1: Test Planning and Strategy

Application Under Test: Web-based hotel booking platform

## 1. Testing Scope:

- Functional testing for booking flow, including search, apply coupon, payment (up to checkout).  
- Validation of business rules like coupon handling.  
- Compatibility across major browsers (Chrome, Firefox, Safari).  
- Basic security checks (e.g., input validation).  
- Responsiveness on mobile and tablet views.

## 2. Test Environment Setup:

- Test Server: Staging environment with latest build  
- Browsers: Chrome v123+, Firefox v115+, Safari 16+  
- Tools: Selenium WebDriver, Python 3.11, PyTest, BrowserStack  
- Test Data: Valid/invalid user accounts, valid/invalid coupons

## 3. Types of Testing:

- Smoke Testing  
- Functional Testing  
- Regression Testing  
- Cross-browser Testing  
- UI/UX Validation  
- Basic API Testing  
- Automation (Selenium for critical paths)

## 4. Risks and Mitigations:

|  |  |
| --- | --- |
| Risk | Mitigation |
| Unstable staging environment | Early sync with DevOps to ensure reliable builds |
| Coupon logic changes frequently | Dynamic test data setup and modular scripts |

## 5. Test Case Prioritization under Time Constraints:

- P1: Happy path booking with and without coupon  
- P2: Invalid coupon, cancel booking, date validations  
- P3: UI layout and minor validations

# Section 2: Manual Test Case Design – Coupon Application

* Test Case ID: TC\_HB\_01

Scenario: Apply a valid coupon during booking

Steps to Execute:

* - Login
* - Search hotel
* - Select hotel
* - Apply 'SUMMER25' coupon
* - Check price

Expected Result: Coupon should be applied; final price should reflect 25% discount

* Test Case ID: TC\_HB\_02

Scenario: Apply an expired coupon

Steps to Execute:

* - Use 'WINTER20' (expired) on booking page

Expected Result: Error message 'Coupon expired' should appear; no discount applied

* Test Case ID: TC\_HB\_03

Scenario: Apply an invalid coupon code

Steps to Execute:

* - Enter 'INVALIDCODE123' during booking

Expected Result: Message: 'Invalid coupon' and original price shown

* Test Case ID: TC\_HB\_04

Scenario: Apply coupon without login

Steps to Execute:

* - Try applying coupon as a guest

Expected Result: Prompt to log in before applying coupons

* Test Case ID: TC\_HB\_05

Scenario: Remove applied coupon before payment

Steps to Execute:

* - Apply 'SUMMER25'
* - Click 'Remove'

Expected Result: Discount removed; full price restored

# Section 4: Debugging & Troubleshooting

Error:  
org.openqa.selenium.ElementNotInteractableException: element not interactable

## Possible Causes:

- Element is hidden or not yet rendered on the page.  
- Timing issue – DOM not ready when action attempted.  
- Element is overlapped by another component (e.g., modal/popup).  
- Incorrect locator (targeting invisible or placeholder elements).

## Debugging Steps:

- Use WebDriverWait to ensure element is clickable.  
- Verify displayed and enabled status with element.is\_displayed().  
- Scroll into view via JS:  
 driver.execute\_script("arguments[0].scrollIntoView();", element)  
- Check for overlapping components using browser dev tools.  
- Use visual highlights (element.get\_attribute("outerHTML")) to debug incorrect locators.