Sign In

| Test Case # | Test Input | Expected Output | Actual Output |
|-------------|--|--|---------------|
| 1 | Valid seller account (unique username, strong password, verified phone) | Account created successfully, redirect to login | √ |
| 2 | Valid agent account (valid agent ID, unique username, strong password, verified phone) | Account created successfully, redirect to login | ✓ |
| 3 | Duplicate username (same username for any user type) | Error: "Username already taken" | √ |
| 4 | Password < 8 characters | Error: "Password must be at least 8 characters long" | ✓ |
| 5 | Password without uppercase letter | Error: "Password must contain uppercase letter" | ✓ |
| 6 | Password without lowercase letter | Error: "Password must contain lowercase letter" | ✓ |
| 7 | Password without number | Error: "Password must contain number" | ✓ |
| 8 | Password without special character | Error: "Password must contain special character" | ✓ |
| 9 | Phone number without +65 prefix | System auto-prepends +65, OTP sent | ✓ |
| 10 | Invalid OTP entered | Error: "Invalid OTP" | ✓ |
| 11 | Agent account with invalid agent ID | Error: "Invalid agent registration number" | ✓ |
| 12 | Agent account with empty agent ID | Error: "Agent registration number required" | ✓ |
| 13 | Missing required field (e.g. empty username) | Error highlighting missing field | ✓ |
| 14 | Password and confirm password don't match | Error: "Passwords do not match" | ✓ |
| 15 | Seller account with agent ID field filled | Agent ID stored as NULL in database | ✓ |
| 16 | SQL injection attempt (e.g. ' OR '1'='1 in username) | Input rejected/sanitized | ✓ |
| 17 | Multiple OTP requests for same number | Only latest OTP is valid | ✓ |
| 18 | Valid credentials but Twilio SMS failure | Error: "Failed to send OTP" with retry option | ✓ |
| 19 | Session timeout during OTP verification | Prompt to restart verification process | ✓ |
| 20 | Existing user forgot password flow | Successfully resets password after OTP verification | ✓ |

List Property

| Test Case # | Test Input | Expected Output | Actual Output |
|-------------|--|--|---------------|
| 1 | Submit valid property listing (Flat type, Town, Street name, Floor Area, maximum commission with 1-5%, years remaining | Property is listed, success message shown, redirect to /view_your_property | √ |
| 2 | Submit without selecting Flat Type | Error: Please select an item from the list | ✓ |
| 3 | Submit without selecting Street Name | Error: Please select an item from the list | ✓ |
| 4 | Submit without selecting Floor Area | Error: Please fill in this field | ✓ |
| 5 | Floor area < 1 | Error: Value must be greater than 1 | ✓ |
| 6 | Commission below 1% | Error: Value must be greater than or equal to 1 | ✓ |
| 7 | Commission above 5% | Error: Value must be less than or equal to 5 | ✓ |
| 8 | Listing Price <1 | Error: Value must be greater than or equal to 1 | ✓ |