# Positive testing and Negative Testing

## 1-Positive Testing

### Where is Positive Testing

**# Source**: **Chatgpt (GPT-5-Standard) at [8/23/2025]**

**Positive Testing** is a software testing approach where test cases are designed to check the system’s behavior using **valid and expected input data** to verify that it functions correctly under normal conditions.

### **✅ Key Points**

**# Source**: **Chatgpt (GPT-5-Standard) at [8/23/2025]**

* Ensures the system **works as intended** with correct input.
* Focuses on confirming that the **application meets requirements** for valid scenarios.
* Uses **valid data domain** (not invalid data).

### **✅ Purpose**

**# Source**: **Chatgpt (GPT-5-Standard) at [8/23/2025]**

* To validate that the application behaves as expected when given **correct input**.
* To verify core functionality before checking for error handling.

### **✅ Examples**

**# Source**: **Chatgpt (GPT-5-Standard) at [8/23/2025]**

* **Login Test**: Entering a valid username and password and checking if login succeeds.
* **Payment Form**: Providing a valid credit card number and confirming successful payment.
* **Age Field**: Entering 25 when valid range is 0–120.

### **✅ Where It’s Used**

**# Source**: **Chatgpt (GPT-5-Standard) at [8/23/2025]**

* **Functional Testing**: To verify each function works correctly with valid data.
* **Regression Testing**: Ensures that correct functionality remains intact after changes.
* **Integration Testing**: Validates modules integrate properly under normal conditions.
* **User Acceptance Testing (UAT)**: Tests real-world valid scenarios.

## 2-Negative Testing

### Where is Negative Testing

**# Source**: **Chatgpt (GPT-5-Standard) at [8/23/2025]**

**Negative Testing** is a software testing approach where test cases are designed to check the system’s behavior using **invalid, unexpected, or incorrect input data** to verify that it handles errors gracefully without crashing.

### **✅ Key Points**

**# Source**: **Chatgpt (GPT-5-Standard) at [8/23/2025]**

* Focuses on testing how the system **handles invalid scenarios**.
* Uses **invalid data domain** (out-of-range, wrong format, or malicious inputs).
* Ensures **robustness, reliability, and security**.

### **✅ Purpose**

**# Source**: **Chatgpt (GPT-5-Standard) at [8/23/2025]**

* To confirm the system does not fail or produce incorrect results when given invalid input.
* To check that **proper error messages and validations** are implemented.

### **✅ Examples**

**# Source**: **Chatgpt (GPT-5-Standard) at [8/23/2025]**

* **Login Test**: Entering a wrong password and verifying the error message appears.
* **Age Field**: Entering -5 or abc when valid range is 0–120.
* **Payment Form**: Using an expired or invalid credit card number.
* **File Upload**: Trying to upload a file type not allowed by the system.

### **✅ Where It’s Used**

**# Source**: **Chatgpt (GPT-5-Standard) at [8/23/2025]**

* **Form Validation**: Ensuring incorrect inputs show appropriate error messages.
* **API Testing**: Sending malformed data to verify correct HTTP error codes (e.g., 400 Bad Request).
* **Boundary Testing**: Inputs just outside the valid range (e.g., 121 when max allowed is 120).
* **Security Testing**: Testing invalid or malicious data for vulnerabilities (e.g., SQL Injection attempts).