# Defect Fixing

## 🔹 Definition

**# Source**: **Chatgpt (GPT-5-Standard) at [8/18/2025]**

**Defect Fixing** is the process where the **assigned developer (or responsible team)** analyzes the root cause of the defect and makes the necessary **code changes, configuration updates, or requirement corrections** to resolve it.

It is the **action step** after a defect has been identified, logged, prioritized, and assigned.

## ⚙️ Steps in Defect Fixing

**# Source**: **Chatgpt (GPT-5-Standard) at [8/18/2025]**

1. **Analyze the Defect**
   * Developer reviews the defect details, logs, and reproduction steps provided by the tester.
   * Understands **why** the defect occurred (root cause analysis).
2. **Make the Fix**
   * Modify the **code**, **database**, **environment setup**, or even **requirements** depending on the defect type.
   * Follow coding standards and development guidelines.
3. **Perform Unit Testing**
   * Developer runs **local/unit tests** to ensure the fix works correctly.
   * Check that the fix doesn’t **break existing functionality** (avoid regression issues).
4. **Check-in/Commit Code**
   * Fixed code is committed to the **version control system (e.g., Git, SVN)**.
   * Mark defect as “**Fixed/Resolved**” in the defect tracking tool (e.g., JIRA, Bugzilla).
5. **Notify Testers**
   * The defect is then sent for **verification** (tester re-tests in the next build/release).

## **📝 Example**

**# Source**: **Chatgpt (GPT-5-Standard) at [8/18/2025]**

* **Defect:** “Login fails with valid credentials.”
* **Fixing Steps:**
  1. Developer checks login module → finds incorrect password hashing function.
  2. Corrects the hashing algorithm in code.
  3. Runs unit tests → login works.
  4. Commits changes to Git → marks defect as “Fixed.”
  5. Tester re-tests in next build.

## **🎯 Purpose**

**# Source**: **Chatgpt (GPT-5-Standard) at [8/18/2025]**

* To **eliminate defects** that block functionality or reduce quality.
* To ensure the product **moves closer to release readiness**.
* To maintain **user trust and satisfaction**.

✅ **In short:** **Defect Fixing** = The developer’s process of analyzing the cause, correcting the issue, testing the fix, and preparing it for tester verification.