Test Process Overview

The **Test Process** is a structured set of activities that ensure software is tested in an organized and efficient way. The process includes the following main phases:

1. Test Planning

- Define the **Scope** of testing (e.g., which features will be tested).
- Identify the **Objectives** of testing.
- Determine **Risks** and how to mitigate them.
- Decide the **Testing Approach** (manual, automated, black-box, etc.).
- Plan **Resources** (team members, tools, environments).
- Define **Entry Criteria** (what must be ready before testing starts).
- Define **Exit Criteria** (when testing can be considered complete).
- Specify the **Level of Detail** required.

Example:

> *Scope: Only test the login logic, not the full website.*

2. Monitoring and Control

- Continuously track testing progress.
- Make adjustments as needed to stay on schedule and meet goals.

3. Test Analysis

- Understand the **Test Basis** (e.g., requirements, user stories).

> *Example: "User must enter correct username and password to log in."*

- Identify **Test Conditions** (what to test).

> *Example: Test login logic only — not the full site.*

4. Test Design

- Choose suitable **Test Techniques** (e.g., Decision Table, Boundary Value Analysis).
- Identify and write all **Test Conditions**.
- Derive detailed **Test Cases** based on those conditions.
- Use **Decision Tables** or similar tools to map out different scenarios.

5. Test Implementation

- Prepare for test execution by:
    - Grouping related test cases into **Test Suites**.
    - Organizing test data and setting up environments.
- Answer the question: **"How will we test?"**

6. Test Execution

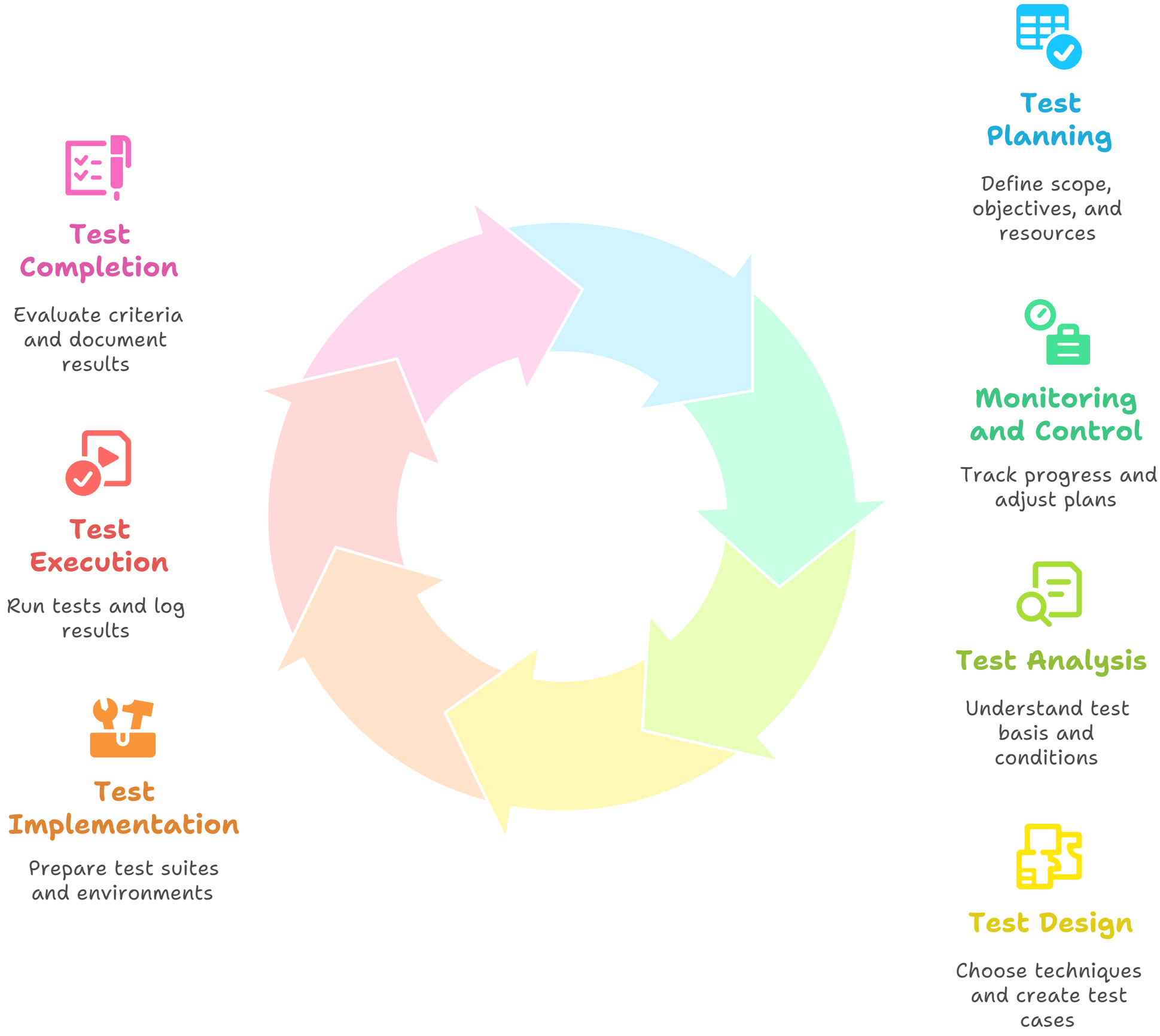
- Run the test cases on the software.
- Log results: Pass / Fail.
- Report any **Defects** found.

7. Test Completion

- Wrap up testing activities.
- Evaluate whether **Exit Criteria** are met.
- Document the test results and lessons learned.

☑ Example Test Condition: Login Logic

- If the username and password are correct → Login successful.
- Otherwise → Login fails.



?Check Your Understanding:

Can you explain the difference between **Test Condition**, **Test Case**, and **Test Suite** ?

- **Test Condition:**A *high-level requirement or feature* that we want to check.

> Example: "Check if login works with correct and incorrect credentials."

- **Test Case:**A *specific scenario* with inputs, steps, and expected results to test a condition.

> Example:
>
> - Input: Correct username and password
> - Steps: Enter credentials, click login
> - Expected Result: User is redirected to dashboard

- **Test Suite:**A *collection of related test cases* grouped together to test a specific feature or module.

> Example: A "Login Test Suite" may contain:
>
> - Test Case 1: Valid username and password
> - Test Case 2: Invalid password
> - Test Case 3: Empty fields
> - Test Case 4: SQL injection attempt