



## P P SAVANI UNIVERSITY

### Tutorial NO. - 11 ON SOFTWARE ENGINEERING(SSCS3010)

**TITLE: Usage of Stubs and Drivers in Integration Testing**

**BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY (BSC-IT)**

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**TUTORIAL-11**

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**Aim: Usage of Stubs and Drivers in Integration Testing**

### **What is Integration Testing?**

Integration Testing checks if different **modules in the Resume Builder** (like login, profile creation, template selection, PDF export, etc.) work properly **when combined**.

Since not all modules are ready at the same time, we use **stubs** and **drivers** to test partially developed systems.

#### **Stubs**

##### **Definition:**

A **stub** is a dummy module that simulates the behavior of a **called module** which is not yet developed.

##### **Use Case:**

Used in **bottom-up testing** (when lower-level modules are missing).

##### **Example (Resume Builder):**

- Module A = **Template Selector** (ready)

- Module B = **PDF Generator** (not ready yet)

When Module A asks Module B to generate a PDF, we provide a **stub** that always returns "**PDF Generated Successfully**" instead of actually creating one.

#### **Drivers**

##### **Definition:**

A **driver** is a dummy module that simulates a **calling module** which is not yet developed.



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### **Use Case:**

Used in **top-down testing** (when higher-level modules are missing).

### **Example (Resume Builder):**

- Module C = **Database Handler (CRUD for user data)** (ready)
- Module D = **Main Dashboard** (not ready yet)  
To test Module C, we create a **driver** that sends fake requests like “*Add User Profile*”, “*Fetch Experience Details*” to C without needing the actual dashboard UI.

### **Easy Summary (Resume Builder Context)**

- **Stub** = Fake “called” module → Pretend a service is available.
  - *Example:* Template Selector calls PDF Generator → PDF Generator not ready → Use **stub**.
- **Driver** = Fake “calling” module → Pretend something is using a service.
  - *Example:* Database Handler needs Main Dashboard → Dashboard not ready → Use **driver**.