

PHASE 2: Org Setup & Configuration

Debug Log Analysis and Bug Fixing in Salesforce Apex

1. Objective of Phase 2

The purpose of this phase is to set up the required Salesforce development environment so that Apex code can be created, tested, and debugged using the Apex Replay Debugger. This includes installing tools, configuring Visual Studio Code, authorizing an org, and preparing the Salesforce DX project structure.

This phase ensures the foundation for all further development and debugging.

2. Installation & Environment Setup

a. Install Salesforce CLI

Salesforce CLI (sfdx) is required to create projects, authorize orgs, run tests, and work with debug logs.

- Download & install Salesforce CLI
- Verify installation using command:
- `sfdx --version`



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b. Install Visual Studio Code

VS Code is the recommended IDE for Salesforce development.

c. Install Salesforce Extensions for VS Code

This extension pack includes:

- Apex Replay Debugger
- Apex Extension
- Lightning Web Components Extension
- Salesforce CLI Integration

These tools enable project creation, org connection, debugging, and log replay.

3. Create Salesforce DX Project

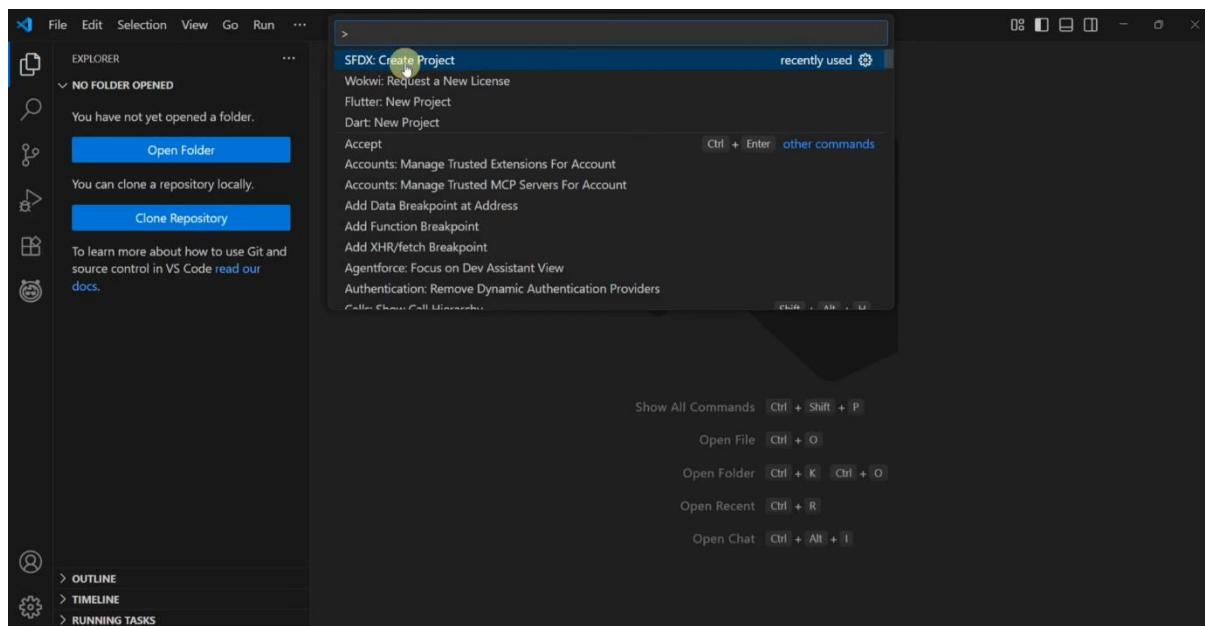
Using VS Code Command Palette:

- Open → Command Palette → **SFDX: Create Project**
- Choose **Standard template**
- Enter project name: **debugger-project**
- VS Code reloads and opens the new DX project folder.

This creates the standard Salesforce DX folder structure:

- force-app/main/default/classes
- config
- manifest
- scripts

This is the base setup for adding Apex classes and test code.



4. Org Authorization & Connection

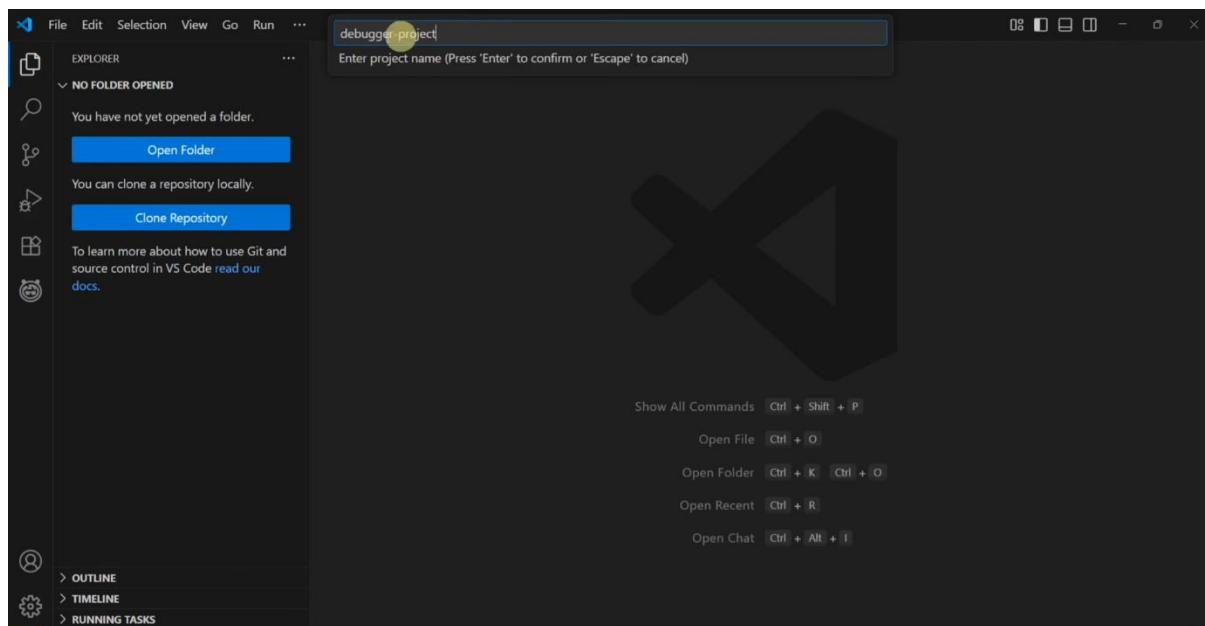
To push code, run tests, and download logs, your DX project must connect to a Salesforce org.

Steps:

1. Open Command Palette
SFDX: Authorize an Org
2. Choose login URL:

- Project Default / Production / Sandbox (for Trailhead Playground → use Default)
3. Enter alias: **debuggerOrg**
 4. Login in browser with Salesforce credentials
 5. VS Code confirms:
Successfully authorized <username> with org ID <orgid>

This connects your DX project with your Salesforce org.



5. Project Configuration for Debugging

To use the Apex Replay Debugger, the org must be properly configured:

a. Enable Debug Logs

- Setup → Debug Logs
- Add your user
- Ensure log level is **Apex Code = Finest**

b. Ensure Debug Mode is Enabled

- Setup → Session Settings
- Enable **Debug Mode**

c. Configure VS Code

- Confirm Salesforce CLI is linked
- Ensure “Replay Debugger” extension is active
- Set VS Code default org using:
- `sfdx force:config:set defaultusername=debuggerOrg`

This allows the debugger to download and replay logs directly.

6. Outcome of Phase 2

At the end of this phase:

- ✓ Salesforce CLI installed and configured
- ✓ Visual Studio Code set up with Salesforce extensions
- ✓ Salesforce DX project created
- ✓ Org authorization successfully completed
- ✓ Debug logs and environment configured for Replay Debugger
- ✓ Ready for development of Apex classes, test classes, and debugging sessions