# Lab 1: INITIALIZING A PROJECT USING CODEIGNITER WITH BOOTSTRAP INTEGRATION AND GITHUB VERSION CONTROL

Course: ITE311

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## Objective

The purpose of this lab is to learn how to:  
- Set up a basic web development project using CodeIgniter 4.  
- Integrate Bootstrap to style the layout of your homepage.  
- Apply Git version control and publish your project to GitHub.  
  
By completing this lab, students will be able to initialize a structured and maintainable web project using modern tools and practices.

## Materials / Requirements

- XAMPP (for local web server and database)  
- Visual Studio Code (VS Code)  
- Git (installed on your machine)  
- A GitHub account  
- Web browser (Chrome, Firefox, Edge, etc.)  
- Stable internet connection

## Procedures / Instructions

### Step 1: Launch XAMPP

Open the XAMPP Control Panel. Click the Start button next to Apache and MySQL. Make sure both services are running.  
  
📌 Why? Apache runs your local web server, and MySQL is for future database use.

### Step 2: Download and Install CodeIgniter

Go to https://codeigniter.com and download the latest version of CodeIgniter 4. Extract the ZIP file to the following folder:  
C:\xampp\htdocs\ITE311-EMBEN  
(Replace "EMBEN" with your surname.)  
  
📌 Why? The htdocs folder is where XAMPP reads web projects from.

### Step 3: Open Your Project in VS Code

Launch Visual Studio Code. Click File > Open Folder and select C:\xampp\htdocs\ITE311-EMBEN.  
  
📌 Why? VS Code will be your main code editor for working with CodeIgniter files.

### Step 4: Test the Default CodeIgniter Page

Open your browser and go to http://localhost/ITE311-EMBEN/public. You should see the CodeIgniter welcome page.  
  
✅ Output: Screenshot of the welcome page.

### Step 5: Create a Controller and a View

Create app/Controllers/Home.php with this content:  
  
<?php  
  
namespace App\Controllers;  
  
class Home extends BaseController {  
 public function index() {  
 return view('home');  
 }  
}  
  
Then create app/Views/home.php and insert Bootstrap HTML code to style the page.  
  
📌 Why? This step allows you to display your custom homepage styled with Bootstrap.

### Step 6: Run the Project Again

In your browser, go to http://localhost/ITE311-EMBEN/public. You should see your new Bootstrap-styled homepage.  
  
✅ Output: Screenshot of the customized homepage.

### Step 7: Initialize Git for Version Control

Open the terminal in VS Code and run:  
  
git init  
  
📌 Why? This creates a local Git repository to track code changes.

### Step 8: Create a New GitHub Repository

Go to https://github.com and log in. Click the + icon > New repository. Name your repository and click Create repository.

### Step 9: Connect Your Local Project to GitHub

In the terminal, run:  
  
git remote add origin https://github.com/YOUR\_USERNAME/ITE311-EMBEN.git  
git add .  
git commit -m "Initial commit"  
git branch -M main  
git push -u origin main  
  
✅ Output: Screenshot of your GitHub repo with uploaded files.

## Output / Results

✅ Screenshot of working CodeIgniter welcome page  
✅ Screenshot of customized Bootstrap layout page  
✅ Screenshot of GitHub repository with all project files and commits