

ILT Course: Full Stack Programming (Detailed Plan)

Day 1: Introduction to Programming & Python Basics

Topics Covered

- Introduction to programming concepts
- Variables, data types

Trainer Notes

- Explain real-world examples
- Demonstrate coding live

Activities

- Icebreaker discussion
- Simple coding exercise

Lab Exercises

- Write a Python program for calculator

Day 2: Python Advanced

Topics Covered

- Functions, loops, OOP

Trainer Notes

- Explain OOP with diagrams

Activities

- Group discussion on OOP

Lab Exercises

- Create class-based program

Day 3: JavaScript Basics

Topics Covered

- JS syntax, DOM

Trainer Notes

- Live DOM manipulation demo

Activities

- Interactive DOM tasks

Lab Exercises

- Build simple webpage script

Day 4: React.js

Topics Covered

- Components, props, hooks

Trainer Notes

- Explain SPA concept

Activities

- Component building activity

Lab Exercises

- Create React app

Day 5: Next.js

Topics Covered

- Routing, SSR

Trainer Notes

- Explain SSR vs CSR

Activities

- Routing exercise

Lab Exercises

- Build basic Next app

Day 6: PHP

Topics Covered

- Server-side basics

Trainer Notes

- Explain request-response cycle

Activities

- Form handling activity

Lab Exercises

- Create PHP form

Day 7: Java

Topics Covered

- OOP, collections

Trainer Notes

- Explain Java structure

Activities

- Coding practice

Lab Exercises

- Create Java class

Day 8: SQL

Topics Covered

- Queries, joins

Trainer Notes

- Explain database concepts

Activities

- Query exercises

Lab Exercises

- Write SQL queries

Day 9: C++

Topics Covered

- Basics, OOP

Trainer Notes

- Explain memory concepts

Activities

- Problem solving

Lab Exercises

- Write C++ program

Day 10: HTML5

Topics Covered

- Structure, forms

Trainer Notes

- Explain semantic tags

Activities

- Design webpage

Lab Exercises

- Create HTML page