

Dhruv Compusoft Consultancy Pvt Ltd

Basaveshwar Nagar, Bengaluru– 560079



Project Report On

“TRAINING COMPLETION REPORT”

**Submitted in partial fulfilment of the requirements for the
.NET Full Stack Developer
at Dhruv Compusoft Consultancy Pvt Ltd.**

Submitted by

Name: Udaya Kumar Shetty

Batch: 2025 (CSE)

Project Duration: Week 4 (.NET Training)

Role: Junior Software Engineer Trainee (.NET Full Stack Developer)

Submitted to

Technical Team – Dhruv Compusoft Consultancy Pvt Ltd.

ACKNOWLEDGEMENT

I am pleased to present this report on my **.NET Full Stack Development Training** successfully completed at **Dhruv Compusoft Consultancy Pvt. Ltd.** as part of my professional skill development journey. This one-month training provided a valuable opportunity to strengthen my technical foundation and gain practical experience in software development using modern Microsoft technologies.

During this period, I was able to explore and implement various components of full-stack development. The training covered in-depth topics such as **C# programming, ASP.NET Core Web API, Entity Framework, SQL Server, HTML, CSS, JavaScript, and ReactJS**. Each module was carefully structured to provide a complete understanding of backend and frontend integration in real-time web applications.

The training also helped me understand the **software development life cycle (SDLC)**, coding standards, version control using **Git and GitHub**, and deployment basics. The interactive sessions and hands-on exercises improved my problem-solving ability and logical thinking, while the project assignments enhanced my practical understanding of enterprise-level application development.

As part of the final phase, I developed a **Full-Stack Student Management System**, which integrated all the technologies learned throughout the program. This project involved creating an ASP.NET Core Web API connected to a SQL Server database and building a responsive ReactJS-based frontend to manage student data. Through this project, I gained real-time experience in handling CRUD operations, data validation, API integration, and error handling, which significantly improved my technical confidence.

Overall, this training helped me bridge the gap between academic concepts and professional software development practices. It not only improved my coding skills but also taught me the importance of clean architecture, debugging, testing, and teamwork in achieving successful outcomes.

This experience has been a major milestone in my career as a **Junior Software Engineer Trainee**, and it has strengthened my aspiration to become a proficient **Full Stack Developer** capable of building scalable, secure, and user-friendly applications.

Udaya Kumar Shetty

B.E. – Computer Science and Engineering

ABOUT THE ORGANIZATION

Dhruv Compusoft Consultancy Pvt. Ltd. is a reputed software development and IT consulting firm specializing in delivering innovative, scalable, and high-quality technology solutions. Established with a vision to bridge the gap between business needs and technical excellence, the company provides services across multiple domains, including web development, enterprise applications, mobile solutions, and cloud computing.

The organization's strength lies in its ability to design and develop end-to-end software products using **Microsoft technologies such as .NET Framework, ASP.NET Core, C#, Entity Framework, and SQL Server**, along with modern front-end frameworks like **ReactJS, Angular, and Bootstrap**. Dhruv Compusoft's development teams follow agile methodologies to ensure faster delivery, continuous integration, and improved collaboration between business and technical teams.

Beyond its service delivery, Dhruv Compusoft Consultancy Pvt. Ltd. is deeply committed to **knowledge building and skill development**. The company conducts regular training programs, workshops, and certification courses for fresh graduates and early-stage professionals, helping them gain practical exposure to real-world software projects. This focus on learning culture ensures that every trainee not only acquires technical expertise but also develops a problem-solving mindset, professional discipline, and an understanding of enterprise-level coding practices.

The company's mission is to deliver **value-driven, client-focused solutions** that help businesses achieve digital transformation while maintaining strong standards of reliability and performance. Its core values — **Quality, Commitment, Innovation, and Continuous Improvement** — are reflected in every aspect of its operations, from project design to customer engagement.

By maintaining a balance between innovation and practicality, Dhruv Compusoft Consultancy Pvt. Ltd. has established itself as a trusted partner for clients and a nurturing platform for developers. The firm provides a highly collaborative environment where developers, engineers, and trainees are encouraged to contribute ideas, learn new technologies, and enhance their overall skill set.

The organization's training and mentorship culture make it an ideal place for aspiring software engineers to begin their professional journey, gain hands-on experience, and build a strong foundation in full-stack development and modern application design.

TRAINING OBJECTIVES

The primary objective of this one-month **.NET Full Stack Development Training** at **Dhruv Compusoft Consultancy Pvt. Ltd.** was to gain in-depth practical exposure to the software development process using modern Microsoft technologies. The program aimed to help trainees develop hands-on experience across all layers of application development — including backend logic, database management, frontend interface design, and API integration — enabling a complete understanding of full-stack development.

The specific goals of the training program were as follows:

- To strengthen the **fundamentals of C# programming** and **Object-Oriented Programming (OOP)** concepts, which form the backbone of backend development.
- To gain a clear understanding of the **ASP.NET Core Web API architecture**, including routing, dependency injection, and middleware configuration.
- To learn how to use **Entity Framework Core** for database interaction, focusing on both **Code-First** and **Database-First** approaches.
- To design and execute **SQL queries and stored procedures** in **Microsoft SQL Server** for efficient data storage, retrieval, and manipulation.
- To develop responsive and interactive user interfaces using **HTML5**, **CSS3**, **Bootstrap**, and **ReactJS** with component-based architecture.
- To understand and implement **frontend-backend integration** through **RESTful API communication**, ensuring seamless data exchange between client and server.
- To complete a **capstone project** — a fully functional **Student Management System** demonstrating end-to-end skills in backend API development, database design, and frontend UI creation.
- To gain practical exposure to **debugging, testing, and deployment**, reflecting real-world software engineering workflows.

By achieving these objectives, the training successfully provided a complete overview of professional full-stack development practices, preparing me for future roles as a **Junior Software Engineer** capable of contributing to scalable and high-performance software systems.

TRAINING OVERVIEW

The training was structured into **four weeks**, each covering a specific module of full-stack development.

Every week included theoretical sessions, practical coding exercises, and mini projects.

WEEK 1: C# FUNDAMENTALS AND SQL BASICS

Objective:

To build a strong foundation in **C# programming** and **relational database management**.

Topics Covered:

- Introduction to **.NET Framework, CLR, JIT Compiler, and Managed Code**.
- **Data Types**, Variables, and Operators.
- **Conditional statements** (if-else, switch) and **Loops** (for, while).
- **Methods** with parameters, overloading, and return types.
- **Object-Oriented Programming**: Classes, Objects, Inheritance, Polymorphism, Abstraction, Encapsulation.
- **Exception Handling** using try-catch-finally.
- **Collections and LINQ**: Arrays, Lists, Dictionaries, Lambda expressions.
- **SQL Fundamentals**: Creating and managing databases, tables, and normalization (1NF, 2NF, 3NF).
- **SQL Queries**: SELECT, INSERT, UPDATE, DELETE, JOINS, GROUP BY, and ORDER BY.
- **Stored Procedures and Triggers** using SQL Server Management Studio (SSMS).

Mini Project:

Developed a **Student Grade Calculator** console application in C# using OOP principles.

Learning Outcome:

This week established my foundation in backend programming and database management, helping me understand how data and logic interact in real-world applications.

WEEK 2: ASP.NET CORE WEB API DEVELOPMENT

Objective:

To develop RESTful APIs using ASP.NET Core integrated with SQL Server via Entity Framework Core.

Topics Covered:

- **Introduction to ASP.NET Core Architecture.**
- Setting up a new **Web API project** using Visual Studio.
- Creating **Controllers, Models, and DbContext** classes.
- Configuring **Entity Framework Core** and performing CRUD operations.
- Writing and executing **Stored Procedures** in SQL Server.
- Using **FromSqlRaw()** and **ExecuteSqlRaw()** for database communication.
- Integrating **Swagger UI** for API testing and documentation.
- Exception handling and returning meaningful HTTP responses.

Mini Project:

Developed a **Student Information Management API** with CRUD functionalities:

- GET /api/students → Fetch all students
- POST /api/students → Add new student
- PUT /api/students/{id} → Update student details
- DELETE /api/students/{id} → Delete student record

Learning Outcome:

Learned to design modular APIs that interact seamlessly with the database, applying proper routing and dependency injection.

WEEK 3: FRONTEND DEVELOPMENT WITH REACTJS

Objective:

To build dynamic and responsive user interfaces that consume backend APIs.

Topics Covered:

- **HTML5:** Forms, tables, and semantic structure.
- **CSS3:** Selectors, Box Model, Flexbox, and Grid.
- **Bootstrap:** Responsive design framework.
- **JavaScript:** Variables, functions, event handling, and Fetch API.
- **ReactJS Essentials:**
 - JSX syntax and components.
 - Props and state management.
 - Lifecycle hooks (useState, useEffect).
 - React Router for navigation between pages.
 - API integration with Fetch and Axios.

Mini Project:

Created a **React Student Dashboard** where users can view and add students using API integration.

Learning Outcome:

This week improved my frontend development skills and helped me understand the real power of integrating UI with backend APIs for data-driven applications.

WEEK 4: FULL-STACK STUDENT MANAGEMENT SYSTEM PROJECT

Objective:

To build and present a complete full-stack CRUD web application using **ASP.NET Core Web API, SQL Server, and ReactJS**.

Project Title:

Student Management System (Project Report)

Modules Implemented:

1. Backend:

- Built RESTful API with ASP.NET Core 9.0.
- Used Database-First approach with Entity Framework Core.
- Implemented CRUD stored procedures.
- Added data validation and custom exception handling.

2. Frontend:

- Developed responsive UI with ReactJS and Bootstrap.
- Created components: StudentList.js, AddStudentForm.js, and EditStudentForm.js.
- Used React Router for navigation.
- Integrated API endpoints using Fetch API.

3. Database:

- SQL Server database with tables: Students, Courses.
- Stored procedures: sp_AddStudent, sp_UpdateStudent, sp_DeleteStudent, sp_GetStudents.

4. Features Implemented:

- Add, Edit, Delete, and View student details.
- Input validation for forms.
- Error and loading state handling.

PROJECT FLOW

Layer	Technology	Description
Frontend	ReactJS + Bootstrap	Provides user interface for CRUD operations.
Backend	ASP.NET Core Web API	Handles business logic and data routing.
Database	SQL Server	Stores and manages persistent data.

TOOLS AND TECHNOLOGIES USED

Category	Tools/Technologies
Programming Languages	C#, JavaScript
Frameworks	ASP.NET Core 9.0, ReactJS
Database	Microsoft SQL Server
Frontend Libraries	Bootstrap, HTML5, CSS3
IDEs	Visual Studio 2022, VS Code
API Testing	Swagger
Version Control	Git and GitHub

CHALLENGES FACED

- API returning 500 errors due to missing database columns.
- Handling CORS issues between ReactJS and ASP.NET Core API.
- Managing component state and form validation in ReactJS.
- Synchronizing asynchronous API calls in the frontend.
- Debugging Entity Framework database migration and connection issues.
- Structuring backend and frontend folders for better modularity.
- Implementing CRUD operations and ensuring smooth data flow.
- Managing version control using Git and resolving merge conflicts.

KEY LEARNINGS

During this training, I gained extensive knowledge across multiple technologies and frameworks. The hands-on experience allowed me to connect theoretical concepts with practical implementation, resulting in a strong technical foundation.

Key takeaways include:

- Understanding **Entity Framework Core**, **LINQ queries**, and **database-first approaches**.
 - Gaining proficiency in **ASP.NET Core Web API** design, CRUD operations, and API testing using Swagger.
 - Learning the complete process of **frontend-backend integration** using RESTful APIs.
 - Implementing reusable React components, hooks, and state management.
 - Strengthening debugging and problem-solving skills through real-time troubleshooting.
 - Applying Git and GitHub for version control and collaborative development.
 - Designing professional documentation and structuring full-stack projects efficiently.
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LEARNING OUTCOMES

By the end of the training, I achieved:

- Proficiency in building scalable and modular web applications using Microsoft technologies.
 - Experience in API creation, frontend design, and database connectivity.
 - Hands-on understanding of professional development workflows and team collaboration.
 - Improved project presentation, documentation, and deployment skills.
 - Greater confidence to handle end-to-end software development tasks independently.
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FUTURE SCOPE

The Student Management System project developed during this training has strong potential for further expansion and enhancement.

Future improvements could include:

- Implementing secure login and **JWT-based authentication**.
- Adding **user roles** like Administrator, Teacher, and Student.
- Integrating **charts and analytics** to visualize performance data.
- Developing responsive dashboards for mobile devices.
- Hosting the system on **Azure Cloud** or AWS for scalability.
- Expanding database modules to include multiple entities like Courses, Departments, and Faculty.

These extensions would transform the project into a complete academic management platform capable of handling real-world institutional requirements.

CONCLUSION

The **.NET Full Stack Developer Training** at **Dhruv Compusoft Consultancy Pvt. Ltd.** has been a significant turning point in my journey as a developer. It provided me with the technical exposure, practical experience, and confidence required to work in a professional development environment.

Throughout this program, I learned how to structure, code, debug, and integrate a full-stack web application using ASP.NET Core, SQL Server, and ReactJS. This experience also strengthened my problem-solving mindset, logical thinking, and teamwork abilities.

By completing this training, I am now equipped with the necessary knowledge to design, develop, and deploy real-world web applications efficiently. It has laid a strong foundation for my career as a **Full Stack Developer**, and I am confident that the skills and insights gained during this period will continue to guide my future endeavors in the field of software development.

SNAPSHOTS



DHRUV COMPUSOFT CONSULTANCY PVT.LTD

No.04, KHB Colony, 2nd Stage, 80 feet
road, Basaveshwara Nagar, Bangalore
-560079, Karnataka, India

Confirmation Letter

Date: 08th October 2025

Dear Udaya,

We are pleased to inform you that you have been shortlisted based on your recent performance in our fresher recruitment process. Congratulations!

Salary Package: ₹ 2,52,070/- per annum

Before we proceed with the official offer, we would like you to take the next 30 days to:

1. Prepare and strengthen your skills in .NET technologies
2. Obtain a recognized certification in .NET (Online/ Offline)

We are attaching the Training Agenda document along with this letter for more information.

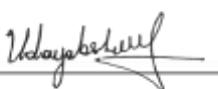
At the end of this 30-days training period, a technical evaluation test will be conducted. Upon successfully clearing the evaluation, you will be issued an offer letter along with the joining date.

We appreciate your enthusiasm and look forward to welcoming you aboard.

Validity – this offer is valid for a period of 1 day from the date of issue / collecting the same.
Please sign and return the duplicate copy of this letter as a token of your acceptance.

I accept the above terms and conditions.

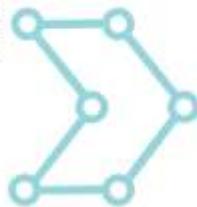
For Dhruv Compusoft Consultancy Pvt. Ltd,


(Signature of Udaya Kumar Shetty)

**ANIL
MANCHAIA
H ERAIAH**

Digitally signed by
ANIL MANCHAIAH
ERAIAH
Date: 2025.10.08
16:04:58 +05'30'

(Anil ME)
Director



The screenshot shows a Windows File Explorer window. The path is Desktop > UdayaKumarShetty_NET_Training > Week1_CSharp_SQL. The view is set to Details. The table lists seven folders named Day-1 through Day-7, each with a creation date and type.

Name	Date modified	Type
Day-1 (09-10-2025)	16-10-2025 03:43 PM	File folder
Day-2 (10-10-2025)	28-10-2025 08:45 PM	File folder
Day-3 (11-10-2025)	12-10-2025 05:25 PM	File folder
Day-4 (12-10-2025)	12-10-2025 05:26 PM	File folder
Day-5 (13-10-2025)	13-10-2025 06:47 PM	File folder
Day-6 (14-10-2025)	16-10-2025 10:29 AM	File folder
Day-7 (15-10-2025) - With Mini Project	26-10-2025 03:44 PM	File folder

Week 1 Folder Structure (C# Basics)

The screenshot shows a Windows File Explorer window. The path is Desktop > UdayaKumarShetty_NET_Training > Week2_AspNetCore. The view is set to Details. The table lists seven folders named Day-1 through Day-7, each with a creation date and type.

Name	Date modified	Type
Day-1 (16-10-2025)	28-10-2025 08:22 PM	File folder
Day-2 (17-10-2025)	28-10-2025 09:00 PM	File folder
Day-3 (18-10-2025)	28-10-2025 10:48 PM	File folder
Day-4 (19-10-2025)	28-10-2025 11:34 PM	File folder
Day-5 (20-10-2025)	29-10-2025 12:33 PM	File folder
Day-6 (21-10-2025)	29-10-2025 01:44 PM	File folder
Day-7 (22-10-2025)	29-10-2025 03:29 PM	File folder

Week 2 Folder Structure (ASP.NET API)

The screenshot shows a Windows File Explorer window with the following path: Desktop > UdayaKumarShetty_NET_Training > Week3_Frontend. The view is set to Details. The table lists seven file folders:

Name	Date modified	Type	Size
Day-1 (23-10-2025)	25-10-2025 10:44 AM	File folder	
Day-2 (24-10-2025)	25-10-2025 11:02 AM	File folder	
Day-3 (25-10-2025)	25-10-2025 11:18 AM	File folder	
Day-4 (26-10-2025)	25-10-2025 11:51 AM	File folder	
Day-5 (27-10-2025)	26-10-2025 11:47 AM	File folder	
Day-6 (28-10-2025) - Mini Project	29-10-2025 08:10 PM	File folder	
Day-7 (29-10-2025) - Mini Project	29-10-2025 08:38 PM	File folder	

Week 3 Folder Structure (Frontend Development)

The screenshot shows a Windows File Explorer window with the following path: Desktop > UdayaKumarShetty_NET_Training > Week4_Project_And_Certificate. The view is set to Details. The table lists several file folders and one Microsoft Word document:

Name	Date modified	Type	Size
Day-1 (30-10-2025)	30-10-2025 07:49 PM	File folder	
Day-2 (31-10-2025)	30-10-2025 07:52 PM	File folder	
Day-3 (01-11-2025)	30-10-2025 07:55 PM	File folder	
Day-4 (02-11-2025)	30-10-2025 07:58 PM	File folder	
Day-5 (03-11-2025)	30-10-2025 08:01 PM	File folder	
Day-6 (04-11-2025)	30-10-2025 08:04 PM	File folder	
Day-7 (05-11-2025)	30-10-2025 08:08 PM	File folder	
ProjectScreenshots	30-10-2025 09:10 PM	File folder	
StudentManagementSystem	30-10-2025 09:27 AM	File folder	
FullStack_StudentManagementSystem_Pr...	30-10-2025 09:20 PM	Microsoft Word D...	1,237 KB
FullStack_StudentManagementSystem_Pr...	30-10-2025 09:22 PM	Microsoft Edge PD...	1,765 KB

Week 4 Folder Structure (Full-Stack Integration)