Elevate Your Web Development Skills with [Manish basnet](#)
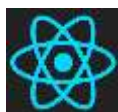
Welcome to Digital Pathshala, where we're thrilled to introduce our MERN course, designed to propel your web development journey to new heights. As technology evolves, so does the need for cutting-edge skills, and our MERN course is crafted with this in mind.

Why Choose Digital Pathshala?

At Digital Pathshala, we're not just an educational platform; we're architects of your success. Our transformative approach to learning extends beyond conventional boundaries, bringing you accessible and engaging education regardless of your background or financial constraints.

Course Overview

The MERN course is designed to introduce students to the world of Web Development, a popular Stack for building web applications.
However, it's important to note that this is not a course for absolute beginners in web development. The course assumes that students already have a solid understanding of HTML, CSS, JavaScript.

Prerequisites for the Course:

- **HTML**
  - Students should be comfortable creating and structuring web pages using HTML

- **CSS**
  - Students should be able to style web pages using CSS, understanding properties like Display, position, z-index, etc.

- **JavaScript**
  - Students need to have a good understanding of JavaScript, including Syntax, Functions, ES6+ features, Objects, Array, and other Basic Concepts.

Detailed Syllabus:

MERN 2.0

- **Week 1 :**

  - Understanding How Websites Work (Frontend, Backend, API, HTTP Status Codes, Database Types, HTTP Verbs)

  - Delving into the Node.js World: Introduction to Node.js, Installation, npm, Express, creating a Simple GET API, Port Numbers

  - Automatic Restart of Our Node.js Server

  - Introduction to Postman: Testing Simple APIs through Postman

  - Exploring SQL vs. NoSQL: When to Use Each? Introduction to ORM/ODM(Sequelize, Mongoose, Prisma)

  - The Importance of Databases: Connecting to MongoDB Atlas, MySql using Mongoose,sequelize

- **Week 2**

Project 1 Backend in MongoDB

- Creating a Simple POST API to Demonstrate Database Insertion

- Understanding CRUD: Starting a Simple Project (CMS) to Learn CRUD Operations

- Implementing CRUD APIs in Node.js

- **Week 3**

Dive into React world

- Why React Over HTML/CSS?

- Understanding React Concepts: Virtual DOM, Reconciliation, Diffing, and More

- Navigating the World of Routing with react-router-Dom in React

- Components and Props in React

- Exploring React Hooks: Types of Hooks with a Brief Walkthrough

- Understanding the useState Hook

- Exploring Three Types of useEffect Hooks in Detail

- **Week 4**

Project 1 Frontend with Tailwind

- Setting Up React Application with tailwind, Intro to Tailwind

- Implementing Read/Get Operations

- Implementing Create/Post Operations

- Implementing Single Read Operations

- Implementing Delete Operations

- Implementing Create Operations

- Completion of the Simple CMS Project

- **Week 5**

  Dive into TypeScript,Websockets

  - Understanding TypeScript, why we need it?

  - TypeScript continue 2

  - TypeScript Continue 3

  - Understanding web sockets with socket.io

  - Websockets Continue 2

- **Week 6**

  Project2 Ecommerce Start (Backend) in MySQL

  - Project Overview, Design, Project Start

  - Database Connection(Xampp, phpMyAdmin, MySql,sequelize)

  - Understanding Authentication in Node.js: Sessions, Cookies, JWT, MITM

  - Create Product(CRUD) APIs

  - Handling Images using Multer, Cloudinary, AWS s3 Bucket, DO spaces

- **Week 7**

  - Create Add To Cart Api, Checkout Apis

  - Payment Integration with Khalti

  - Create Admins Apis(orders, websockets)

- **Week 8**

  Project2 Ecommerce Start (Frontend)

- Project setup, UI Design

- Design Project UI using Tailwind

- Understand Redux, React-Redux, Redux-Toolkit

- Dive into Redux-Toolkit

- Integrate Auth Apis

- **Week 9**

  - Integrate Add TO Cart Api

  - Handle Stocks, Prices in Cart page

  - Integrate Checkout Api, Khalti Payment

- **Week 10**

  - Dive into Admin Dashboard

  - Integrate Admin Products Apis

- **Week 11**

  - Manage Stocks in admin Dashboard

  - Order status APIs integration

  - Understand socket.io Client

- **Week 12**

  - Make Review Controllers (Frontend,Backend)

  - Make Misc features, apis

- **Week 13**

  Dive into Cloud, Hosting

  - Understand Cloud, Domains, Subdomains

  - Host Project in CPanel, Vercel, Digital Ocean

- **Week 14**

  Dive into Docker, Kubernetes, Swarm

  - Introduction to Docker

  - Basic Commands , Images, dockerHub

  - Understanding Swarm, Kubernetes(concept)

  - Setting up our project2 using Docker, deploy to cloud.

At the end of the project, students will be required to build a similar web application to demonstrate their understanding and application of the concepts learned during the course.

This will serve as the final project for certificate eligibility.

Bonus : Github Class, Q&A class of 15 minutes everyday

Note:

1. *Your seat will only be recorded as reserved once payment has been received.*
2. *You'll be provided with everyday recordings so you can revise anytime.*