## **Week 1 – Frontend Foundations (HTML, CSS, JS + Tailwind)**

Day Topic Task

1 HTML Basics Learn tags, structure, add images & links

2 CSS Basics Selectors, box model, flexbox, grid

3 Responsive Design Media queries, mobile-first layouts

4 Tailwind CSS Utility-first styling, responsive UI

5 JavaScript Basics Variables, loops, functions, events

6 DOM Manipulation Select, edit, handle events dynamically

7 Mini Project Build "To-Do List" using HTML + Tailwind + JS

## **Week 2 – React.js Fundamentals**

Day Topic Task

8 React Intro Setup (Vite / CRA), understand JSX

9 Components & Props Create functional components and pass data

10 State & Events Manage UI state with useState, handle events

11 Conditional Rendering Use map(), conditional UI

12 Hooks Intro useEffect for side effects

Day Topic Task

13 Mini Project Counter / Todo app in React

14 Routing in React React Router basics

**♦** Week 3 – Next.js + Backend (Node.js + API Integration)

Day Topic Task

15 Next.js Intro Pages, components, file-based routing

16 Next.js Data Fetching Server & client components, getServerSideProps

17 API Routes in Next Create backend routes inside Next

18 Node.js Basics Install Node, run JS files, use npm

19 Express Intro Create server, routes (GET/POST)

20 REST API Project Build simple CRUD API (Express or Next API Routes)

21 Firebase Integration Connect frontend to Firebase for data & auth

**(a)** Week 4 − Firebase + Auth + Deployment

Day Topic Task

22 Firebase Basics Setup Firebase project, Firestore, Hosting

| Day | / Topic | Task |
|-----|---------|------|
|     |         |      |

23 Realtime DB vs Firestore Learn structure & CRUD operations

| 24 | Authentication | Email/Password + 0 | Google Auth |
|----|----------------|--------------------|-------------|
|----|----------------|--------------------|-------------|

25 Secure APIs Use Firebase Rules & Tokens

26 Storage Upload & retrieve files (Firebase Storage)

27 Testing & Debug Test Firebase features in local emulator

28 Deploy Next.js App Deploy on Vercel / Firebase Hosting

29 Custom Domain Connect your own domain

30 Final Project Showcase React + Next + Firebase App 👺

## **Pinal Project Ideas**

- Chat App using Firebase Realtime DB + Auth
- **E**-commerce Store (Firebase Storage for images)
- Portfolio Manager Next.js + Firebase Hosting