The Loki Project
Minimum Viable Skills (MVS) for Full Stack Development

Chapter 1 - Feel like a Developer

Objectives:

- Learn how the course will be taught
- Programmers will learn how to use command line preferably bash
- Learn what is Github
- Be able to set up Their Github Account
- Programmers will be proficient in github workflow (single player mode)
- Introduce Project cloud Deployment (Vercel/Netlify (Front-End) and Render (Back-End)

Project: Step by Step instruction in deploying NodeJs and NuxtJS/NextJS/SvelteKit

Chapter 2 - Back To Basics

Objectives:

- Reintroduce HTML and CSS
- Introduce Tailwind (Optional)
- Learn Basics of JavaScript (Terminal State Edition)

Project: Rock Paper Scissor Terminal Edition

Chapter 3 - Going Intermediate

Objectives:

- Introduce JavaScript Intermediate (Web State Edition / Dom Manipulation)

Optional Project: To-Do-List

Chapter 4 - Checkpoint

Objectives:

- Programmers will be proficient in github workflow (multiplayer mode)
- Learn how to use documentations (Guides,Tutorial,Reference/API)
- Learn brief introduction of frameworks and backend with documentation
- diving in to frontend frameworks

Chapter 5 - First Step to Becoming a Front-End Developer

Objectives:

- Introduce what is Front-End Framework

- Vanilla vs Framework
- Identify modern Front-End Frameworks
- Learn about Javascript/NodeJS Package Manager
- Initialize various front-end frameworks

Chapter 6 - Front-End Framework Fundamentals - Vue

Objectives:

- Learn about Reactive states
- Learn about Attribute Bindings
- Learn about Event Listeners
- Learn about special attribute bindings (v-model)
- Learn about conditional rendering
- Learn about list rendering
- Learn about basic of life-cycles
- Learn about watchers
- Learn about components and props

Project: Re-do To-do-list

Chapter 7 - Checkpoint Advanced Javascript with Framework

- Learn about Promise and Asynchronous Javascript
- Learn about the fetch api
- Introduce axios as alternative for fetch api
- Introduction to backend structure with fakestoreapi (microservices)
- Learn how to fetch data from frontend

Project: Map Find (OpenStreetMap Geocoding API)

Chapter 8 - How Front-End Developers work with Back-End Developers

- Jumping to Meta Framework (NuxtJS)
- Learn the concept of token approach authentication (JWT)
- Learn how localStorage and cookies work
- Learn how to work with Swaggers API documentation

Chapter 9 - Personal Project with External API

- Allow students to create their own project with external api
  Suggestions: WeatherAPI, FakeStoreAPI

Chapter 10 - Diving to the Backend Realm

- Introduce Backend Methodologies (Traditional/MVC vs API/Microservice)
- Learn the difference between opinionated vs opinionated frameworks
- learn about REST API

- introduction to Express as API

Chapter 11 - Back-end Fundamentals

- Learn how to setup express
- Learn how to structure backend
- Learn how to create middlewares and controllers (optional includes services)
- Learn about Prisma
- Learn how to setup Prisma in the backend
- Learn Prisma CRUD with prisma-repl

Chapter 12 - Becoming a Back-End Designer

- Learn about dynamic routing
- Implement REST route from Prisma Model
- Learn basic REST Pattern and Form Validation
- Learn how to use Postman/Thunder Client
- Learn Data Fetching with Nuxt useFetch/$fetch (axios alternative)

Chapter 13 - Becoming a Back-End Artisan

- Learn File upload with FormData x Multer
- Supabase Storage Fundamentals
- Adding Supabase to ExpressJS

Project: Google Drive

Chapter 14 - Final Step to Becoming a Back-end Developer

- Learn Authentication process
- Learn JWT
- Learn how to set-up authentication with passportjs
- Learn how to setup passport-local and passport-jwt
- Learn how to build an Passport Auth

Project: Any Project with Authentication