Mastering Svelte

1. **Introduction to Svelte**
   - What is Svelte?
   - Tools & Extensions
   - Svelte vs Svelte Kit

2. **Getting started with Svelte**
   - Svelte Components Basic Structure
   - Reactive Statements
   - Component Props

   Exercise
   - A Simple Counter Component

3. **Svelte Components**
   - Component Children
   - Style Directives
   - Named Directives
   - Slot Props
   - Input Value
   - Component Life-Cycle Functions
   - The **tick** lifecycle

4. **Stores**
   - Writable Stores
   - Callback functions
   - Readable Stores
   - Custom Stores
   - Derived Stores
   - Tweened Writable Stores
   - Spring Writable Stores

5. **The Context API**
   - Introduction to the Context API
   - Context to Pass Data to Children
   - Context and Stores
   - Handling Form Validation
   - Using Slots & Slot Props
   - Layer and Rect Components

6. **Svelte Kit: Form Actions**
   - Form Actions
   - Named Form Actions
   - Extending Forms with JavaScript

- Forms GET Method
- Enhance Actions

Exercise: Validation Errors using the Enhance Action

7. **Svelte Kit: Pages & Layout**
   - Introduction to Svelte Kit
   - Creating Routs
   - The **$lib** Folder Alias & Custom Aliases
   - Navigate Functions
   - Rest Parameter
   - Optional Parameters
   - Parameters Matcher
   - Layouts Groups

8. **Svelte Kit: Loading data**
   - Shared Load Function
   - Server Only Load Functions
   - Layout Load Functions
   - Type Safety with Generated Types
   - Server-only Load Functions
   - Passing Data
   - Controlling Routes Response and Creating Endpoints
   - Using Fetch and Svelte Kit

   Exercise:
   - Creating a Login Page and Endpoint
   - Using cookies to Login and Logout
   - Re-Running all Load functions
   - Re-running Specific Load Functions

9. **Svelte Kit: Hooks**
   - Handle Hook
   - Locals Object
   - Handle Fetch Hook
   - Handling Expected Errors
   - Using Environment Variables.

10. **Svelte Kit: Deployment**
    - Adapter Overview
    - Building and Running our App with the Node Adapter
    - Deploying to Heroku