(All the topics will be available here in this course)

Getting Started With React Js
- What is React.js? And Why Would You Use It?
- ReactJS vs "Vanilla JavaScript": Why Use React?
- Creating React Projects
- Why Do You Need A Special Project Setup?

JavaScript Refresher (Cover all topics)

React Essentials - Components, JSX, Props, State & More
- Setting Up The Starting Project
- JSX & React Components [Core Concept]
- Creating & Using a First Custom Component
- A Closer Look: Components & File Extensions
- How React Handles Components & How It Builds A "Component Tree" [Core Concept]
- Using & Outputting Dynamic Values
- Setting HTML Attributes Dynamically & Loading Image Files
- Making Components Reusable with Props [Core Concept]
- Best Practice: Storing Components in Files & Using a Good Project Structure
- Storing Component Style Files Next To Components
- Component Composition: The special "children" Prop [Core Concept]
- Reacting to Events [Core Concept]
- How NOT to Update the UI - A Look Behind The Scenes of React [Core Concept]
- Managing State & Using Hooks [Core Concept]
- Rendering Content Conditionally
- CSS Styling & Dynamic Styling

React Essentials - Deep Dive
- Working with Fragments
- Splitting Components By Feature & State
- Forwarding Props To Wrapped Elements
- Setting Component Types Dynamically
- Setting Default Prop Values
- Best Practice: Updating State Based On Old State Correctly (imp)
- User Input & Two-Way-Binding
- Updating Object State Immutably
- Deriving State From Props
- Sharing State Across Components
- Outsourcing Data Into A Separate File

Styling React Components
- Splitting CSS Code Across Multiple Files
- Styling React Apps with Vanilla CSS - Pros & Cons
- Vanilla CSS Styles Are NOT Scoped To Components
- Dynamic & Conditional Inline Styles
- Scoping CSS Rules with CSS Modules
- Introducing "Styled Components" (Third-party Package)
- Dynamic & Conditional Styling with Styled Components
- Adding & Using Tailwind CSS In A React Project
- Dynamic & Conditional Styling with Tailwind

Working with Refs & Portals
- Introducing Refs: Connecting & Accessing HTML Elements via Refs
- Manipulating the DOM via Refs
- Refs vs State Values
- Setting Timers & Managing State
- Forwarding Refs to Custom Components
- Exposing Component APIs via the useImperativeHandle Hook
- Introducing & Understanding "Portals"
- Controlled vs Uncontrolled Components

React's Context API & useReducer - Advanced State Management
- Understanding Prop Drilling & Project Overview
- Prop Drilling: Component Composition as a Solution
- Introducing the Context API
- Introducing the useReducer Hook

Handling Side Effects & Working with the useEffect() Hook (get the idea of useEffect and how it works)
 - Cover other hooks (https://legacy.reactjs.org/docs/hooks-overview.html)

A Look Behind The Scenes Of React & Optimization Techniques
- React Builds A Component Tree / How React Works Behind The Scenes
- Avoiding Component Function Executions with memo()
- Understanding the useCallback() Hook
- Understanding the useMemo() Hook
- Virtual DOM
- Why Keys Matter When Managing State!

An Alternative Way Of Building Components: Class-based Components (It is old version of react, latest version function component has been used)
- Lifecycle method
- state management
- method binding

API integration (HTTP request)
- Using async / await
- Transforming Fetched Data

Custom Hooks & HOC
- What are "Custom Hooks"?
- Using Custom Hooks
- Error Boundary
- HOC (Ex. Protected Route)

Working with Forms & User Input (https://react-hook-form.com/get-started)
- Handling Form Submission
- Validation
- React-hook-form

Redux (https://redux.js.org/introduction/getting-started)
- Redux vs React Context
- How Redux Works
- Redux with Class-based Components
- Redux-thunk / redux-saga
- Redux Challenges & Introducing Redux Toolkit

React router (https://reactrouter.com/en/main/start/overview)
- Defining Routes
- Navigating between Pages with Links
- Working with Navigation Links (NavLink)
- Route & Search params

Testing React Apps (Unit Tests) (https://testing-library.com/docs/react-testing-library/intro/)

React + TypeScript (Cover all the topics)

Additional topics to be covered
- Adding Authentication To React Apps
- React Query (https://tanstack.com/query/v3/docs/react/overview)

Next.js
- Introduction to Next.js (Overview why Nextjs is introduced, Why it is considered as Framework not library) (SSR) (https://www.udemy.com/course/nextjs-react-the-complete-guide/)
- Axios & Ftech (https://www.digitalocean.com/community/tutorials/react-axios-react)
- Material-UI & tailwind (https://mui.com/material-ui/getting-started/ , https://tailwindcss.com/docs/installation)

Projects and Problems
Tic-Tac-Toe Game
Building a Quiz App
Building a
Order App
Employee dashboard (manage the list of employees and their department)