

MERNSTACK

COURSE SYLLABUS

What is new in ES6

What is Classes

About let and const

What is Arrow functions and Enhanced Object Literals

About Destructuring and Spread Operator

Define Generators and Iterators

Symbols and Comprehensions

Async Programming

How to use Babel.js

BUILDING UI USING REACT.JS

Overview

Why use React.js

Virtual DOM Benefits

JSX: View Components

Syntax of JSX

How to create view classes using JSX

How to generating views without using JSX

Precompilation of JSX

How to utilizing JSX in the server

Models

Immutability benefits

Utilizing Immutable.js

Components

Life-Cycle : Component

About Virtual DOM

Events : Component

How to using States and Properties

How to Initializing States from properties

Using refs : Accessing DOM nodes

About Synthetic Events

Compositions : Component

About Communication Between Components

About Reusable Components

Forms

Controlled and Uncontrolled Components

ReactLink

Principle of One-Way Data Binding

Principle of Two-Way Data Binding

Manipulation of Node.js and Server DOM

React.js Components : Unit Testing

About Miscellaneous

About Animations

Helpers : DataBinding

Helpers : Immutability

Helpers : Performance

FLUX AND REDUX ARCHITECTURE

Overview

Intoduction of Reactive programming

Uni directional data flow Advantages

Brief about Architecture

How to Building blocks in Flux

Define Dispatcher and Stores

Action and Views

About Dispatcher

Principle of dispatcher

How to Registering callbacks

About Triggering Actions

Store

Role of Store

How to Maintain Application State

Define Event Broadcasting

Brief about Reducer

Generating Reducers

About Retrieving State and Combining Reducers

Action Creator

Generating Actions

How to Dispatching actions to the dispatcher

How to Dispatching Async Actions

Utilizing Middlewares

About Views

About React Components as Views

Define State Subscribers

How to Updating data from the store

React-Redux Bindings

Using “Connect” : Binding Components to React Store

Using Provider : Injecting Redux Store

Utilizing Providers with React Routers

About Server Side Rendering

Brief about Testing

Using Mocha & Chai : Organizing Test Code

Utilizing Test for mocking dependencies

About Testing Stores

WEBPACK

Introduction of Module Bundling

Define Installation

How to generating Webpack configuration

About Setting up webpack-dev-server

Define Configure automatic browser refresh

About Loading Modules

Optimizing rebundling of react components

Utilizing Less/Sass loaders

About Hot loading components

Node JS

Node.js framework

Installing Node.js

Node.js to execute scripts

Node Package

Node Package Manager

Package.json configuration file

Global vs. local package installation

Shrink-wrap to lock the node modules versions

Learn NPM Vet

Outdated command

Asynchronous programming

Callback functions

Promises

Using Request module to make api calls

HTTP Server with Node.JS using HTTP APIs

Building an HTTP server

Rendering a response

Query strings

File System

Synchronous vs asynchronous I/O

Dirname and Filename

Buffers Streams and Events

Flowing vs non-flowing streams

Streaming I/O from files and other sources

Multi Processing in NodeJS

Child Process API

Cluster API for multi-core servers

ExpressJS

Defining Jade templates

Postman configuration

JSON Data

POST data

Adding middleware

Express JS with MongoDB and Sqlite

RDBMS databases and NoSQL databases

Performing CRUD operations

Socket.io, Front-end and Chat App

Adding Socket.io To Your App

Explore Front-end

Sending Live Data Back & Forth

Front-end UI

Timestamps

Chat application Project

Intro to Task Managers with unit testing