

Course Curriculum : UI/UX



Html/Html5

- Introduction of different Web Technology
- Introduction
- HTML Elements
- HTML Attributes
- HTML Headings
- HTML Paragraphs
- HTML Formatting
- HTML Fonts
- HTML Styles
- HTML Links
- HTML Images
- HTML Tables
- HTML Lists
- HTML Forms
- HTML Iframe
- HTML Layout
- HTML Doctypes
- HTML Head
- HTML Meta
- HTML Scripts
- HTML Media
- HTML Audio
- HTML Object
- HTML Video
- HTML YouTube
- HTML Media Tags

Structure of a Web Page

- HTML5 DOCTYPE
- Page Encoding
- HTML5 Mark-up
 - New And Updated Elements
 - Structural Elements
 - New Attributes
 - Deprecated Elements And Attributes

Forms

- What Are The Needs For Web Applications?
- Current Solutions
- New Input Types
- New Attributes
- Form Validation

Audio and Video

- The State of Web Audio And Video Based On Plug-in
- The State Of Audio And Video Codec (e.g. H.264, WebM, etc.)
 - Video/Audio Codec And Browser Support
- New Audio/Video Mark-up
- Attributes And Methods
- Understanding Audio/Video Events
- Customizing Audio/Video Controls

HTML5 Canvas

- Overview Of Graphics In The Browser
 - Canvas Vs. SVG
 - Accessibility
- Using A Canvas
- Context And Coordinates
- Drawing Shapes
- Working With Paths
 - Drawing Straight Lines
 - Drawing Circles Or Arcs
- Drawing Text
- Drawing Images

- Working With Pixels
- Understanding Transforms
 - Translation
 - Rotation
 - Scaling



CSS/CSS3

- CSS Introduction
- CSS Syntax
- CSS Id & Class
- CSS Styling
- Styling Backgrounds
- Styling Text
- Styling Fonts
- Styling Links
- Styling Lists
- Styling Tables
- CSS Box Model
- CSS Border
- CSS Outline
- CSS Margin
- CSS Padding
- CSS Display
- CSS Positioning
- CSS Floating
- CSS Align
- CSS Navigation Bar
- CSS Image Opacity
- CSS Media Types

CSS3

- Selectors and Pseudo Classes
 - Attribute Selectors
 - The Target Pseudo-Class
 - UI Element States Pseudo-Classes
 - Negation Pseudo-Class
 - Structural Pseudo-Classes
- Fonts and Text Effects
 - Fonts on the Web
 - Font Services
 - The @font-face Rule
 - Text Shadow
 - Word Wrapping
- Colors, Gradients, Background Images, and Masks
 - Color
 - The Opacity Property
 - Backgrounds
 - background-origin, and background-size
- Borders and Box Effects
 - Image Borders
 - Rounded Corners
 - Box Shadow
- Transitions, Transforms, and Animations
 - Transitions and Transforms
 - Transitions
- Layout: Columns and Flexible Box
 - Layout: Columns and Flexible Box
 - Flexible Box Model
- Embedding Media
 - Video Formats
 - Styling Video
- Media Queries
 - Targeting Widths and Devices with CSS3 Media Queries
 - Responsive Images and the viewport Meta

□ JavaScript

JavaScript Fundamentals

- variables
- Data types
- Type Conversions
- Operators
- Conditional operators: if, '?'
- Logical operators
- Loops: while and for
- The "switch" statement
- Functions
- Arrow functions, the basics
- JavaScript specials

Data types

- Strings
- Arrays
- Array methods
- Iterables
- Map and Set
- Object.keys, values, entries
- Destructuring assignment
- Date and time
- JSON methods, toJSON

classes

- Class basic syntax
- Class inheritance
- Static properties and methods
- Private and protected properties and methods
- Extending built-in classes

Error handling

- Error handling, "try...catch"
- Custom errors, extending Error

Promises, async/await

- Introduction: callbacks
- Promise
- Promises chaining
- Error handling with promises
- Promise API
- Promisification
- Async/await

Generators, advanced iteration

- Generators
- Async iterators and generators

Modules

- Modules, introduction
- Export and Import
- Dynamic imports

Browser: Document, Events, Interfaces

Document

- Browser environment, specs
- DOM tree
- Walking the DOM
- Searching: getElement*, querySelector*
- Node properties: type, tag and contents
- Attributes and properties
- Modifying the document
- Styles and classes
- Coordinates

Events

- Introduction to browser events

- Bubbling and capturing
- Event delegation
- Browser default actions
- Dispatching custom events

UI Events

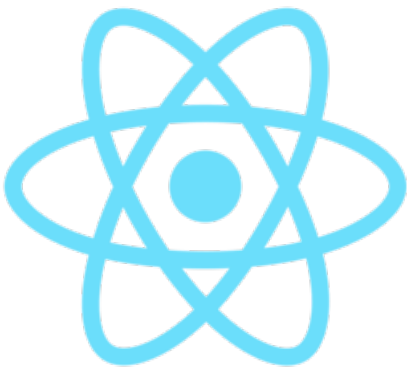
- Mouse events basics
- Moving the mouse: mouseover/out, mouseenter/leave
- Drag'n'Drop with mouse events
- Keyboard: keydown and keyup
- Scrolling

Forms, controls

- Form properties and methods
- Focusing: focus/blur
- Events: change, input, cut, copy, paste
- Forms: event and method submit

Document and resource loading

- Page: DOMContentLoaded, load, beforeunload, unload
- Scripts: async, defer
- Resource loading: onload and onerror



ReactJS

Module 1

why React

- Introduction
- Installing and setting
- Intro to JSX
 - Why use Capital component name
 - diff b/w HTML and JSX
- components
 - What is component
 - types of components
 - class components
 - with es6 with and without super without es6 bind method
 - functional components
 - reusable components:
 - why we need

Module 2

State Management

- what is state
- 2. State Object
- setState()
 - state with class components
 - state with functional components (with Hooks)

- Props
 - passing data from parent to child
 - passing data from child to parents
 - propTypes for type check and debug
- Controlled components

Module 3

React Lifecycle

- componentWillMount
- componentDidMount
- componentWillUpdate

Using External API

- Axios and Fetch API
 - use of GET, POST, PATCH, PUT, DELETE
 - Async/Await with Axios and promise
 - Using Promise.all to resolve the above API data

Module 4

React-Router

- Introduction
- Link and its exact attributes
- Nav-Link and its 'isActive' class
- Browser Router
- Router
 - Render
 - component
- Switch
- Setting 404 page
- Dynamic Routes
- using History and Location and Params

Module 5



Redux

- Redux Method
 - createStore()
 - action
 - Dispatch()
 - Subscribe()
- Redux Advance
 - Reducer
 - combineReducers
 - Redux middleware
 - Thunk middleware

- Fetching data in Redux through API
- React-Redux
 - Installation
 - Using provider
 - connect()
- Project
 - Individual project
 - Healthcare
 - Tvastra
 - Northern health
 - Team project
 - Social Media
 - Coub
 - Krazily
 - Blogging
 - Medium
 - E-commerce
 - Ozon
 - shop.