

16IT056-React JS

Unit1-Session1-Part1

P RAMPRAKASH,
ASSISTANT PROFESSOR/IT,

Course Outcome

At the end of the course students will be able to:

C01 : Understand the basic concepts in React JS and its advantages.

C02 : Implement various components in React JS.

C03 : Build applications using MVC and higher order components.

syllabus

Unit 1: Introduction

Introduction, Environment Setup, Features, Pros & Cons, AngularJS Vs ReactJS, Setting up React tools with Chrome, React.js syntax, JSX ,

Unit 2: Components

React component, React component with ES6, stateless components, properties, events, state, note component, refs,

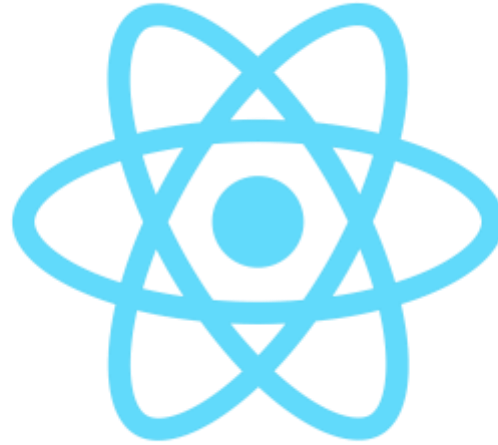
Unit 3: Higher-Order Components

Prop Types, child elements, Keys, component lifecycle, Mounting components, Setting properties, create-react-app

References

Books:

- **Andrea Chiarelli, “Beginning React”, Packt Publishing Limited, 2018.**
- **Artemij Fedosejev, “React.js Essentials”, Packt Publishing Limited, 2015**



React JS - Introduction

- **C01** : Understand the basic concepts in React JS and its advantages
 - **L01.1: Describe about Reactjs fundamentals**
 - **S01.1.1: Explain the usage of Reactjs**

Overview

- History
- ReactJS
- ReactJS Features
- ReactJS Applications

History

- Created by Jordan Walke, a software engineer at Facebook
- First deployed on Facebook's newsfeed in 2011 and later on Instagram.com in 2012
- Open-sourced at JSConf US in May 2013
- Facebook announced React Fiber, on April 18, 2017
- React 360 V1.0.0 was released to the public on April 19, 2017

What is React?

- A JavaScript Library For Building User Interfaces
- Renders your UI and responds to events.
- It also uses the concept called Virtual DOM, creates an in- memory data structure cache, enumerates the resulting differences, and then updates the browser's displayed DOM efficiently.
- One of the unique features of React.js is not only it can perform on the **client side**, but it can also be rendered on the **server side**, and they can work together interoperable.



What is React?

- Angular has
 - modules
 - controllers
 - directives
 - scopes
 - templating
 - linking functions
 - filters
 - dependency injection

What is React?

- ~~Angular~~ has **React** has **JUST COMPONENT**
- ~~• modules~~
 - ~~• controllers~~
 - ~~• directives~~
 - ~~• scopes~~
 - ~~• templating~~
 - ~~• linking functions~~
 - ~~• filters~~
 - ~~• dependency injection~~

What is React?

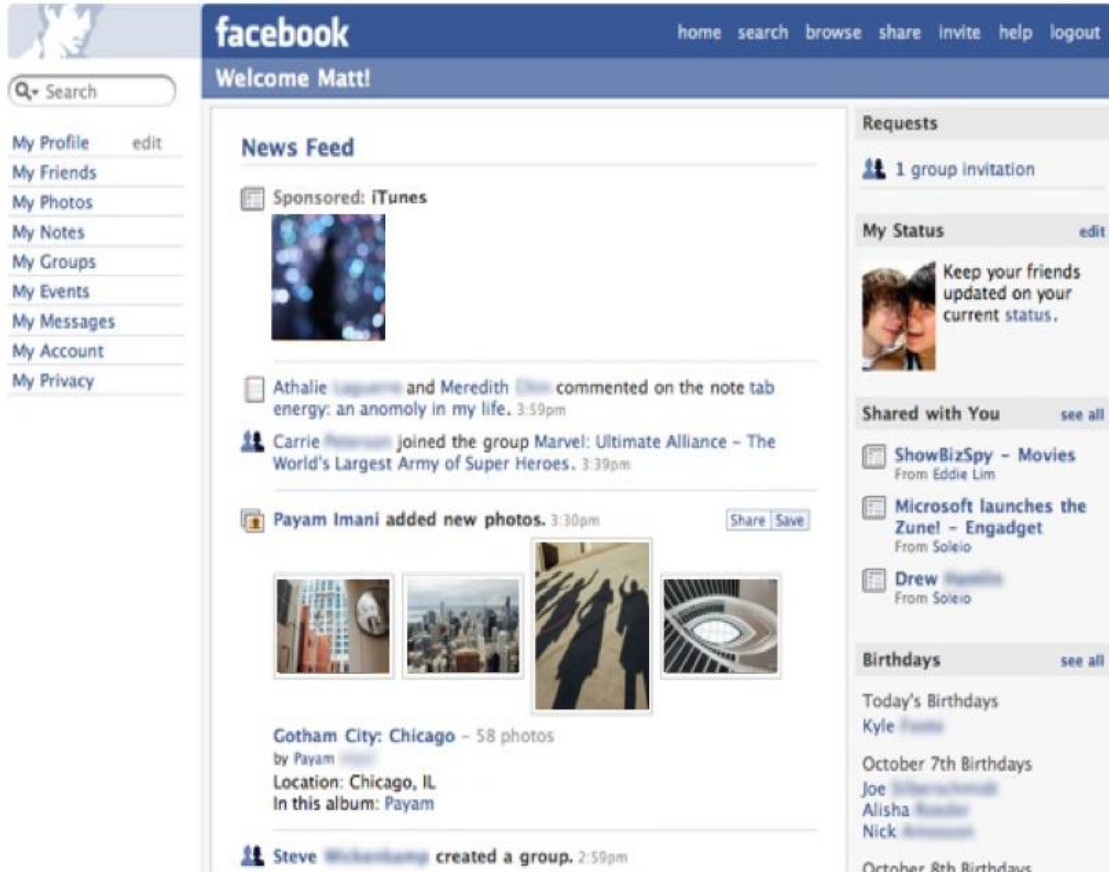
- Building reusable UI components
- React is a library for building composable user interfaces. It encourages the creation of **reusable UI components**, which present data that changes over time
- Lots of people use React as the V in MVC



Why React

- It has component based Architecture
- **Components makes our code reusable.**
- React is declarative-tell react what the UI should look like and it will create the actual UI
- **React will handle efficiently updating and rendering of components-DOM updates**
- we can integrate react into any of our applications

Why React



Before 2009 each time we have to refresh the FB page for new update

Why React



- FB after implementation of REACT became user friendly.
- **New stories** notification appear.
- By clicking will automatically refresh the news feeds

React — Features

- **JSX** – JSX is JavaScript syntax extension
- **Components** – React is all about components
- **Unidirectional data flow and Flux** – React implements one-way data flow which makes it easy to reason about your app.

React — Advantages

- Uses virtual DOM which is a JavaScript object. This will improve apps performance, since JavaScript virtual DOM is faster than the regular DOM.
- Can be used on client and server side as well as with other frameworks.
- Component and data patterns improve readability, which helps to maintain larger apps

React — Limitations

- Covers only the view layer of the app, hence you still need to choose other technologies to get a complete tooling set for development.
- Uses inline templating and JSX, which might seem awkward to some developers.

React Application



Facebook



Facebook Ads Manager



Instagram



F8



Airbnb



Skype



Tesla



Walmart

Summary

- React introduction
- Reason for choose react
- React features
- Reach advantages & limitation

Thank You