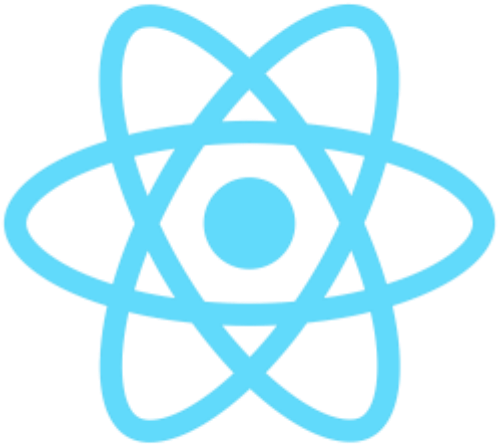

16IT056-React JS

Unit1-Session3-Part I

React JS –Features

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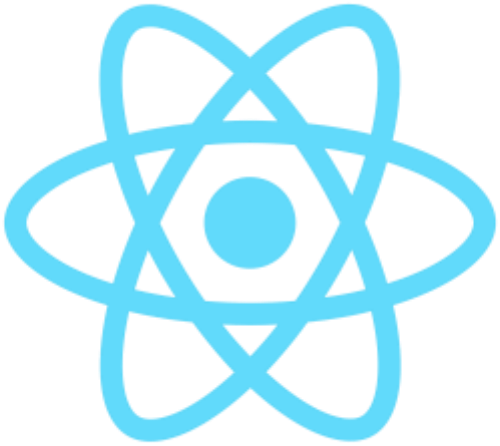
ASSISTANT PROFESSOR/IT,



React JS –Features

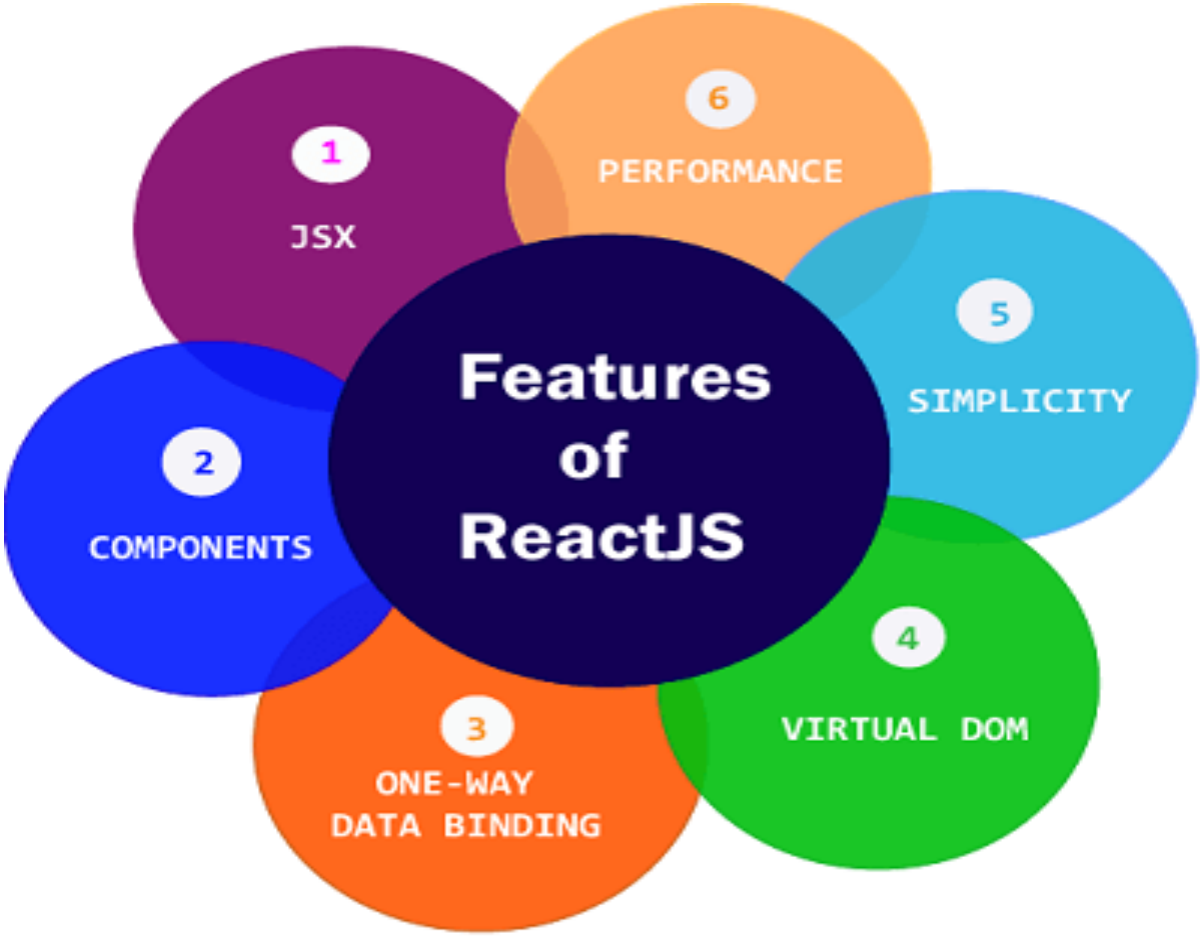
- **CO1 :** Understand the basic concepts in React JS and its advantages

  - **LO1.2: Describe the features of Reactjs and explain the Concepts of virtual DOM and working principles**

React features

- JSX
- Components
- One-way Data Binding
- Virtual DOM
- Simplicity
- Performance

React features

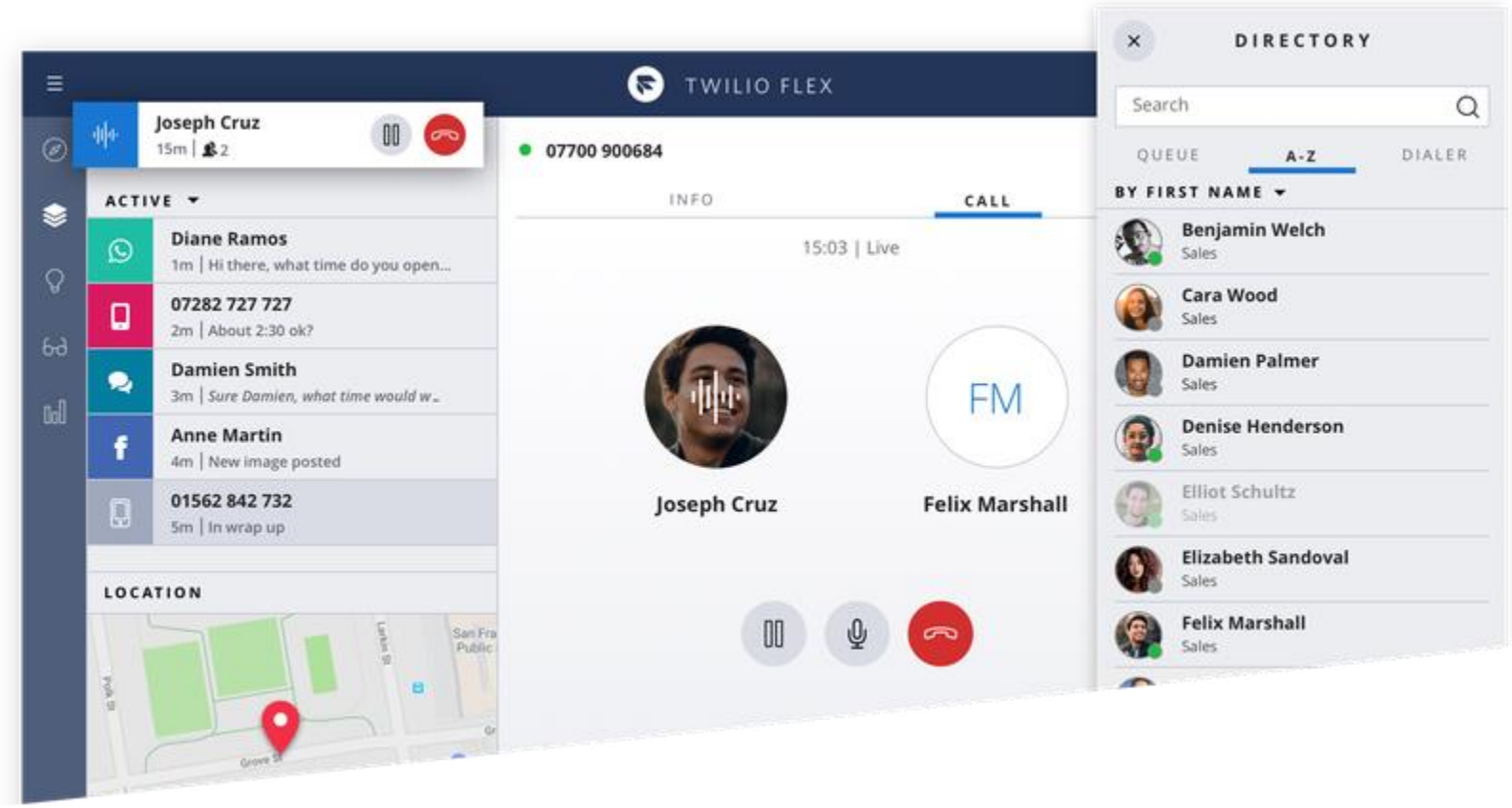


JSX

- JSX stands for JavaScript XML
- JSX is a syntax extension for JavaScript code a look a lot like Html
- If a javascript file contains JSX directly with Babel JavaScript library in the development mode just for test and not in production
- *<script scr =https://cdnjs.cloudflare.com/aja/libs/babel-core/5.8.24/browser.min.js></script>*
- This syntax is processed into JavaScript calls of React Framework
- It extends the ES6 so that HTML like text can co-exist with JavaScript react code

Components

- A component is a small, reusable le chunk of code that is responsible for one job. That job is often to render some HTML.
- The terms "component," "React component," and "component instance" all refer to the same thing.
- ReactJS application is made up of multiple components, and each component has its own logic and controls.
- React everything is component the web page divided into small components to create a view(or UIs)
- Every component defines a view or a part of a view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Joseph Cruz
15m | 2
ACTIVE
Diane Ramos
1m | Hi there, what time do you open...
07282 727 727
2m | About 2:30 ok?
Damien Smith
3m | Sure Damien, what time would w...
Anne Martin
4m | New image posted
01562 842 732
5m | In wrap up
LOCATION
07700 900684
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CALL
15:03 | Live
Joseph Cruz
FM
Felix Marshall
DIRECTORY
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DIALER
BY FIRST NAME
Benjamin Welch
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Cara Wood
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Damien Palmer
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Denise Henderson
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Elizabeth Sandoval
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Felix Marshall
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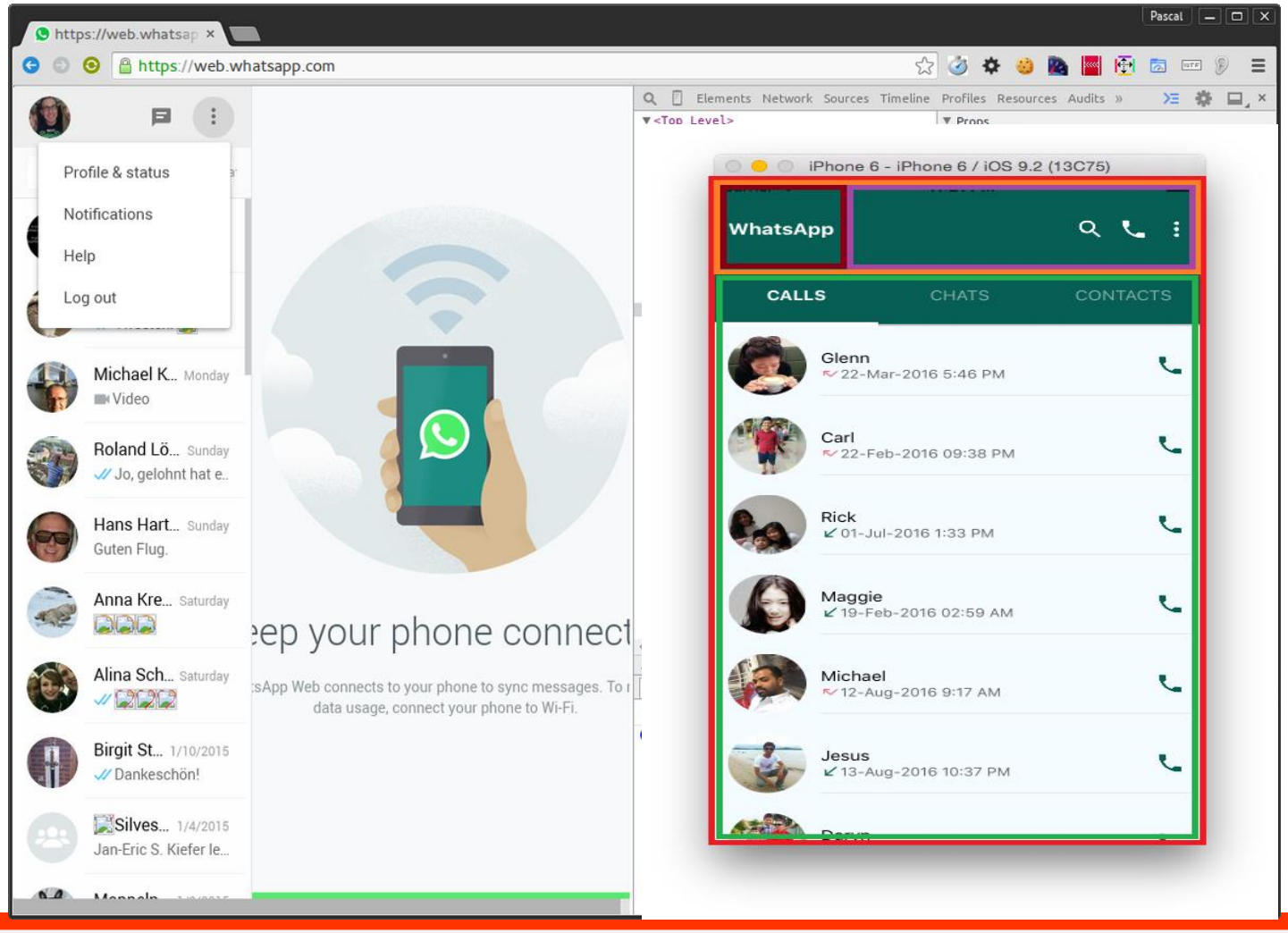
Components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Pascal
Profile & status
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Michael K... Monday
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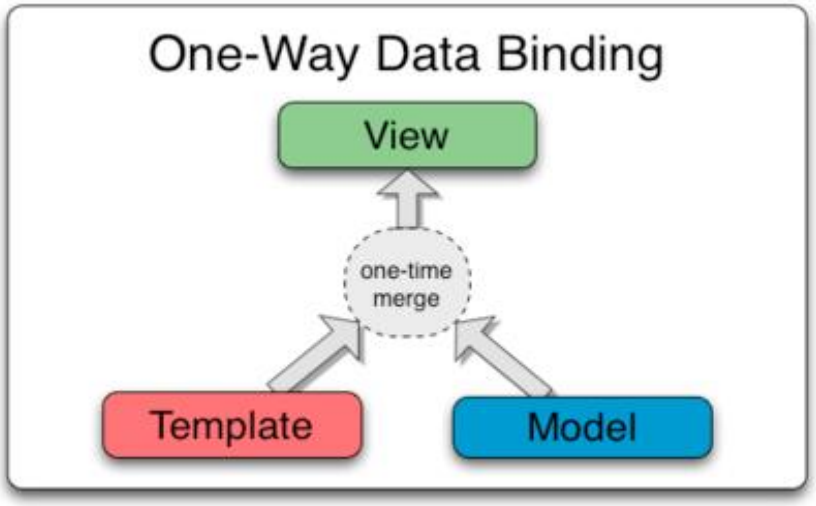
Roland Lö... Sunday
Jo, gelohnt hat e..
Hans Hart... Sunday
Guten Flug.
Anna Kre... Saturday
Alina Sch... Saturday
Birgit St... 1/10/2015
Dankeschön!
Silves... 1/4/2015
Jan-Eric S. Kiefer le...
Elements Network Sources Timeline Profiles Resources Audits
iPhone 6 - iPhone 6 / iOS 9.2 (13C75)
WhatsApp
CALLS
CHATS
CONTACTS
Glenn
22-Mar-2016 5:46 PM
Carl
22-Feb-2016 09:38 PM
Rick
01-Jul-2016 1:33 PM
Maggie
19-Feb-2016 02:59 AM
Michael
12-Aug-2016 9:17 AM
Jesus
13-Aug-2016 10:37 PM

One-way Data Binding

- ReactJS is designed unidirectional data flow or one-way data binding.
- The benefits of one-way data binding give you better control throughout the application
- If the data flow is in another direction, then it requires additional features.
- Flux is a pattern that helps to keep your data unidirectional
- This makes the application more flexible that leads to increase efficiency.

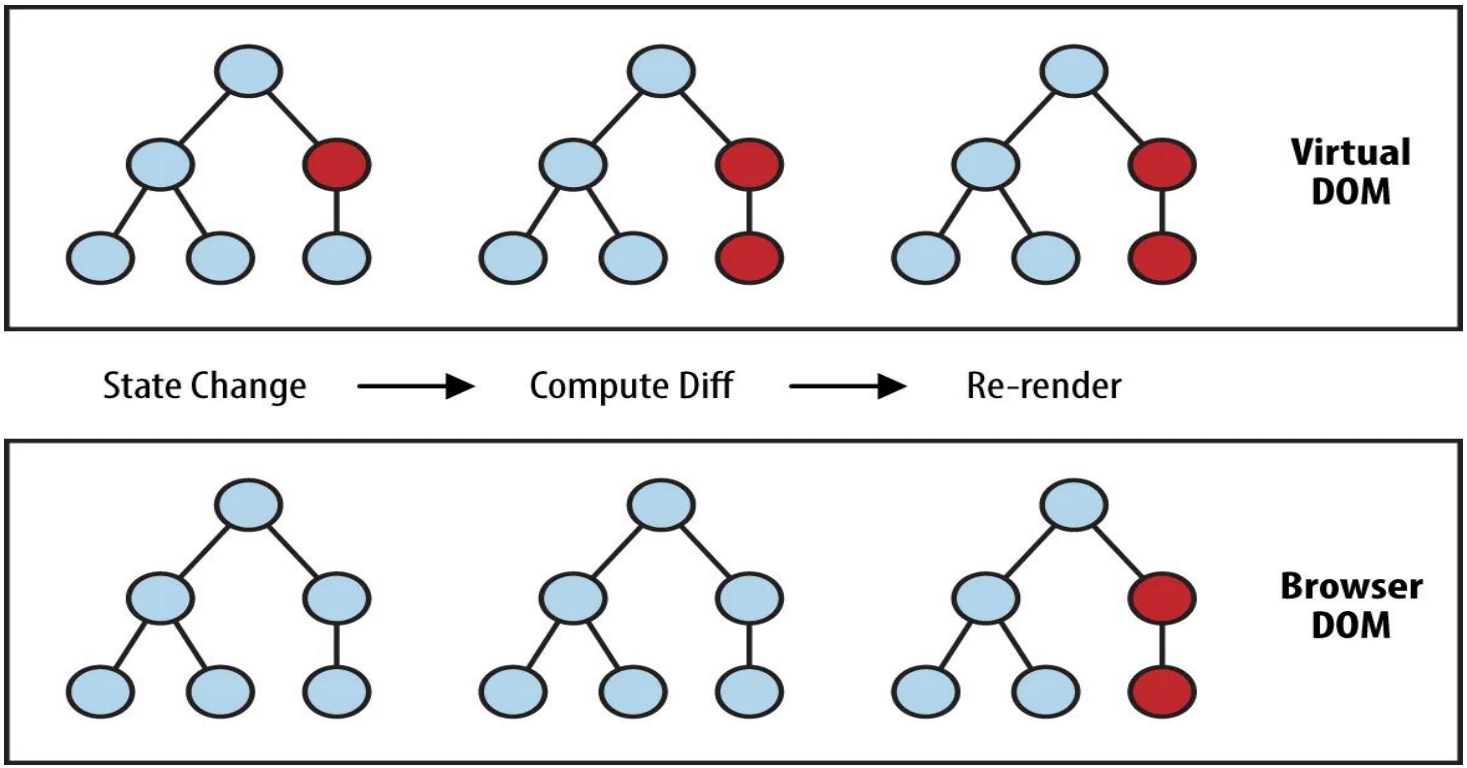


Virtual DOM

- The document object model or DOM manipulation is one of the most important parts of the web
- But updating the DOM is very slow, even slower than many JavaScript operations.
- Most of the JavaScript frameworks update the whole DOM which makes it slower.
- The virtual DOM is a lightweight copy of the original DOM.
- It has all the properties of the real DOM. When the update is made, the whole virtual DOM is updated.
- This sounds inefficient but virtual DOM is much faster than the original one.

Virtual DOM

- After the update is complete, ReactJS compares the updated virtual DOM and the pre-updated original DOM



Simplicity

- ReactJS uses JSX file which makes the application simple and to code as well as understand.

- ReactJS is a component-based approach which makes the code reusable as our need. This makes it simple to use and learn

Performance

- ReactJS is known to be a great performer. This feature makes it much better than other frameworks out there today.
- The reason behind this is that it manages a virtual DOM. The DOM is a cross-platform and programming API which deals with HTML, XML or XHTML
- The DOM exists entirely in memory. Due to this, when we create a component, we did not write directly to the DOM
- Instead, we are writing virtual components that will turn into the DOM leading to smoother and faster performance.

Thank You