Front end technologies oral questions:

1) What is React?

React is a declarative, efficient, flexible open source front-end JavaScript library developed by Facebook in 2011. It follows the component-based approach for building reusable UI components, especially for single page application. It is used for developing interactive view layer of web and mobile apps. It was created by Jordan Walke, a software engineer at Facebook. It was initially deployed on Facebook's News Feed section in 2011 and later used in its products like WhatsApp & Instagram.

2) What are the features of React?

React framework gaining quick popularity as the best framework among web developers. The main features of React are:

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

For More Information, [**Click here**](https://www.javatpoint.com/react-features).

### 3) What are the most crucial advantages of using React?

Following is a list of the most crucial advantages of using React:

**React is easy to learn and use**

React comes with good availability of documentation, tutorials, and training resources. It is easy for any developer to switch from JavaScript background to React and easily understand and start creating web apps using React. Anyone with little knowledge of JavaScript can start building web applications using React.

**React follows the MVC architecture.**

React is the V (view part) in the MVC (Model-View-Controller) architecture model and is referred to as "one of the JavaScript frameworks." It is not fully featured but has many advantages of the open-source JavaScript User Interface (UI) library, which helps execute the task in a better manner.

**React uses Virtual DOM to improve efficiency.**

React uses virtual DOM to render the view. The virtual DOM is a virtual representation of the real DOM. Each time the data changes in a react app, a new virtual DOM gets created. Creating a virtual DOM is much faster than rendering the UI inside the browser. Therefore, with the use of virtual DOM, the efficiency of the app improves. That's why React provides great efficiency.

**Creating dynamic web applications is easy.**

In React, creating a dynamic web application is much easier. It requires less coding and gives more functionality. It uses JSX (JavaScript Extension), which is a particular syntax letting HTML quotes and HTML tag syntax to render particular subcomponents.

**React is SEO-friendly.**

React facilitates a developer to develop an engaging user interface that can be easily navigated in various search engines. It also allows server-side rendering, which is also helpful to boost the SEO of your app.

**React allows reusable components.**

4) What are the biggest limitations of React?

Following is the list of the biggest limitations of React:

* React is just a library. It is not a complete framework.
* It has a huge library which takes time to understand.
* It may be difficult for the new programmers to understand and code.
* React uses inline templating and JSX, which may be difficult and act as a barrier. It also makes the coding complex.

### What do you understand by Virtual DOM?

A Virtual DOM is a lightweight JavaScript object which is an in-memory representation of real DOM. It is an intermediary step between the render function being called and the displaying of elements on the screen. It is similar to a node tree which lists the elements, their attributes, and content as objects and their properties. The render function creates a node tree of the React components and then updates this node tree in response to the mutations in the data model caused by various actions done by the user or by the system.