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### 3. APIs, HTML, CSS, React

- a. What is an API?
- b. Compare and contrast GET and a POST requests?
- c. What is the difference between a span and div tag? When would you use either?
- d. What are the major features of React?
- e. What is the difference between Element and Component?

Answer a:

The full form of an API is Application Programming Interface. It is a software intermediary that allows two applications to talk to each other. Whenever we use the apps like Instagram, WhatsApp, etc. we are actually using an API.

An app connects to the Internet and sends data to a server. The server then retrieves that data, interprets it, performs the necessary actions, and sends it back to your phone. The app then interprets that data and presents us with the information we want in a readable or understandable way. All this happens by an API.

Example:

Let's imagine that we are booking a railway ticket online. We choose a departure city and date, a return city and date, as well as other variables. In order to book a seat, we interact with that online platform to access their database and see if any seats are available on those dates and the costs.

Answer b:

GET request	POST request
Get method is mainly used at the client that is Browser side to send a request to a specified server to get certain data or resources.	Post method is mainly used at the client that is Browser side to send data to a Specified server in order to create or rewrite a particular resource/data.
It is only used to view something and not to change it.	It is used for both viewing as well as changing or updating.
Requests made are stored in the Browsing history.	Requests made are not stored in the Browsing history.
Requests can be saved as a bookmark in the Browser.	Requests cannot be saved as a bookmark in the Browser.

Answer c:

<span>	<div>
It is an inline element.	It is a block level element.
It must be used to wrap any specific word that we want to highlight on our webpage.	It must be used to wrap a section, for highlighting that section.
Align attribute is not accepted.	Align attribute is accepted.
It is used to stylize texts.	It is used while creating CSS based layouts in html.

Answer d:

React is an efficient, flexible, and open-source JavaScript library, that was developed and is maintained by Facebook (which is now Meta). It is capable of rendering front-ends of web apps that are simple (easy to learn), speedy, and scalable.

The major features of React are:

1. One-Way Data Binding
2. Declarative UI
3. Component Based Architecture
4. Virtual DOM
5. Quick Rendering
6. Robust Community Support and many more.

Answer e:

Element	Component
It is the basic building block.	It isn't the basic building block.
Elements are immutable	Components are mutable.
Elements are light, stateless and faster.	Components are comparatively slower than elements.
An element always gets returned by a component.	A component can be functional or a class that may take an input and returns an element.