Next JS Presentation Class Assignment

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Overview

Next.js

Next.js is an advanced, open-source web development framework or library built on the JavaScript library React. It makes it easier to create modern web programs by providing features like server-side rendering, Typescript compatibility, and built-in routing.

Understanding page.tsx

Definition: *page.tsx is a file in Next.js used to define a web page. Each page.tsx corresponds to a URL path and renders a page in the Next.js app, and it is necessary to name our file as page.tsx(while using TypeScript otherwise page.jsx) which we need to show on our website.*

Example: *A page.tsx in a folder named services defines the page /services.*

Understanding layout.tsx

Definition: layout.tsx provides a layout component that covers around other components, establishing a good structure across all pages.

Usage: For creating same elements like headers, footers, or sidebars which are to be shown on every page.

Example: Having or placing a layout.tsx in the root of the app directory covers the entire app, while having or placing it inside a folder, like /about, applies it only to pages within that folder only.

Link Tag In Next JS

Definition: *<Link /> is a component in Next.js for navigating or moving between pages without refreshing.*

Purpose: *Provides Better Performance from Anchor tag, Pre loads the linked pages for better and lag-free navigation.*

Benefits: *Better performance, skips loading and provides a good user experience.*

Nested Pages in Next.js

Explanation: *Nested pages are structured in folders to represent different pages or URL segments, In other words nested pages are page folder inside a page folder.*

Example:

app/progress/page.tsx

app/progress/quarter_1/page.tsx

Benefits: *Organizes files and creates a clean URL structure, and helps us avoid confusion.*

Components In Next JS

Definition: Components are reusable pieces of UI in Next.js (and React) applications, Just like Functions in TypeScript are reusable code.

Purpose: Break down the UI into smaller, manageable, and maintainable parts, which can be use wherever we want in our page.

Example: Header, Footer, or Button components or Aside section can be used across multiple pages.

Benefits:

1. Code Reusability
2. Easier Maintenance
3. Improved Readability

Applying CSS in Next.js

CSS in Next.js: *There are several ways to style components.*

- *Global CSS*: *Define in the app directory.*
- *Module CSS*: *Use CSS modules for scoped styles, e.g., Header.module.css for header only.*

What is Tailwind CSS?

Definition: *Tailwind CSS is a CSS framework that uses predefined classes to apply styles directly in the HTML which are understood by the browser.*

Example:
<button class="bg-blue-500 text-white py-2 px-4">

* Click me*

</button>

Purpose: *Speeds up styling by avoiding writing custom CSS for each component and directly applicable on html.*

Differences Between Tailwind CSS and Standard CSS

Standard CSS:

- ○ *Requires custom classes and selectors.*
- ○ *Styles are applied in CSS files.*
- ○ ***Example***: *.button { background-color: blue; }*

Tailwind CSS:

- ○ *Uses utility classes directly in TSX or JSX.*
- ○ *Faster and simple.*
- ○ ***Example***: *class="bg-blue-500 text-white py-2 px-4"*

Thanks

Please Feel Free To Give Feedback On My Work

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