



Next 13.4

# Next JS Rendering



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1. Pre Rendering
  - Static Site Generation(SSG)
  - Server Side Rendering(SSR)
  - Incremental Static Regeneration(ISR)
2. Client Side Rendering(CSR)



# Client Side Rendering(CSR)

1. Traditional react single page app(using vite)
2. A HTML block and a lot of javascript codes comes from the server.
3. All html content generate in the client(Browser) using Javascript.
4. Its not suitable for SEO.



## Static Site Generation(SSG)

1. Row HTML, CSS and JS served from the server using cdn.
2. Websites all contents found in html file.
3. It has no dynamic data comes from database.
4. Generate Static HTML files in build process while run "npm run dev".
5. If it has any fetching call, all fetching call runs at build time and Generate Static HTML files
6. It's loads faster.
7. By default all pages statically generated in build time



# Server Side Rendering(SSR)

1. Generate HTML in request time.
2. Websites all contents found in html file.
3. It has dynamic data comes from database.
4. Generate HTML files in the server every single request time.



# Incremental Static Regeneration(ISR)

1. It has regeneration timeout.
2. If a request made before regeneration timeout it served previous generated html
3. If a request made after regeneration timeout it's re-generate html in the background and served previous generated html.
4. If a request made after generated html, its served generated html.
5. Websites all contents found in html file.
6. It has non frequently updated dynamic data comes from database.



# Hydration

1. In Server Side Rendering all html contents come from the server. Then needs to add interactivities in the client. The process of add interactivities like event listeners, add javascript animations etc, it's called Hydration.

