

# Next.js Topics and Questions

## Server-Side Rendering (SSR) and Static Site Generation (SSG)

### Theory

- What is `getServerSideProps` (SSR) for fetching data at request time?
- What is `getStaticProps` (SSG) for pre-rendering pages?
- What is `getStaticPaths` for pre-rendering pages?
- What is the difference between `getStaticProps` and `getServerSideProps`?
- Why can't `getStaticProps` and `getServerSideProps` be used together?
- What is Incremental Static Regeneration (ISR)?
- What is the fallback option in `getStaticPaths`?
- What are use cases for SSR vs SSG?

## Next.js Configuration and Structure

### Theory

- What is `_app.js` in Next.js?
- What is `_document.js` in Next.js?
- What is the difference between `_app.js` and `_document.js`?
- What is `next.config.js`?
- What is the use of the `next export` command?
- What is a custom server in Next.js?
- What is the singleton router in Next.js?

## Routing and Navigation

### Theory

- How do you handle redirects in Next.js?
- What is the difference between `push` and `replace` in `useRouter`?

## API Routes and Middleware

## Theory

- How to use API routes to build backend logic within Next.js?
- How to create custom middleware for handling requests in Next.js?
- What is API caching in Next.js?

# Performance and Optimization

## Theory

- What is automatic code splitting in Next.js?
- How does Next.js optimize images?
- What is Fast Refresh in Next.js?
- What is AMP (Accelerated Mobile Pages) in Next.js?
- What are cache-control headers in Next.js?
- What are static and dynamic imports in Next.js?

# Environment Variables

## Theory

- What is the use of build-time environment variables in Next.js?

# Other Features

## Theory

- What is Preview Mode in Next.js?
- How many ways are there to add CSS to a file in Next.js (e.g., CSS Modules)?

# Practical

- Build a Next.js application.
- Implement `getServerSideProps` for fetching data.
- Implement `getStaticProps` and `getStaticPaths` for pre-rendering.
- Create a custom middleware for handling requests.
- Use API routes to build backend logic.
- Add CSS to a Next.js application using CSS Modules.