Optimizations 1

# **Optimizations**

### **Terms**

Image component Metadata Lazy loading Link component Script component

## **Summary**

- The Image component in Next.js automatically optimizes and serves images in various formats and sizes, reducing loading times and bandwidth usage for improved site performance.
- The Link component enables client-side navigation between pages within our Next.js application, eliminating full page reloads and creating a smoother user experience.
- The Script component allows you to load and manage external scripts efficiently.
- Next.js automatically optimizes our fonts and removes external network requests for improved privacy and performance.
- To make our applications search engine friendly, we can export a metadata object from our pages and layouts. Metadata exported from a page overwrite metadata defined in the layouts.
- Lazy loading helps us improve the initial loading performance of a page by reducing the amount of JavaScript needed to render the page. With lazy loading we can defer loading of client components and external libraries until when they're needed.

Optimizations 2

### **Creating Metadata**

```
export const metadata: Metadata = {
  title: 'Create Next App',
  description: 'Generated by create next app',
};

export async function generateMetadata(): Promise<Metadata> {
};
```

## **Lazy Loading**

```
import dynamic from "next/dynamic";
const HeavyComponent = dynamic(
   () => import('./HeavyComponent'),
   {
     ssr: false,
     loading: () => Loading...
}
);
```