



# Material UI.

A 3<sup>rd</sup> party component library to build  
high quality digital UIs

# Material Design.

- Material (Design) **is a design system created by Google to help teams build** high-quality digital experiences **for Android, iOS, and web.**
- **A visual language that synthesizes classic principles of good design with the innovation and possibility of technology and science.**
- **Inspired by:**
  - **the physical world and its textures, including how they reflect light and cast shadows.**
  - **the study of paper and ink.**
- **Material is a metaphor.**
  - **Material surfaces reimagine the mediums of paper and ink.**

# Material Components.

- Material Components **are interactive building blocks for creating a digital user interface.**
- **They cover a range of interface needs, including:**
  1. **Display: Placing and organizing content using components like cards, lists, and grids.**
  2. **Navigation: Allowing users to move through an application using components like navigation drawers and tabs.**
  3. **Actions: Allowing users to perform tasks using components such as the floating action button.**
  4. **Input: Enter information or make selections using components like text fields and selection controls.**
  5. **Communication: Alerting users to key information and messages using snackbars, banners and dialogues.**

# Theming.

- **Material Design does not mean copy Google design.**
- **Material Theming makes it easy to customize Material Design to match the look and feel of your brand, with built-in support and guidance for customizing colors, typography styles, and corner shape.**
- **Color - Material's color system is an organized approach to applying color to a UI. Global color styles have semantic names and defined usage in components – primary, secondary.**
- **Typography - The Material type system provides 13 typography styles for everything from headlines to body text and captions.**
  - **Each style has a clear meaning and intended application within an interface.**

# Material UI.

- **MUI is a React component library based on the Material Design system.**
- **Its React components include: <Card />, <Box />, <Grid />, <Menu />, <Button />, <Icon />, <Snackbar />, <Typography /> .....**
- **Build your own design system, or start with Material Design.**
- **The CSS-in-JS model.**

# CSS-in-JS

- **Plain CSS**

```
.my-header {  
  background-color: lightblue;  
  padding: 10px;  
}
```


- -----  
import 'app.css'

```
<header  
  className="my-header">  
  .....  
</header>
```

- **CSS-in-JS**

```
const myHeader = {  
  backgroundColor: "lightblue",  
  padding: "10px"  
};
```

```
.....  
<header style={myHeader}>  
..... </header>
```



Must be  
CamelCase

# Many Alternatives

- **Libraries:**
  - **Tailwind**
  - **Chakra**
  - **React-Bootstrap**
- **Design Systems:**
  - **ANT**
- **CSS models:**
  - **CSS modules**
  - **BEM**