Material UI

**What is Material UI?**

**Material UI** is an open-source, front-end framework for React components that has 60,500 plus stars on [github](https://github.com/mui-org/material-ui" \t "_blank). It is built using *Less*. **Less** (stands for **Leaner Style Sheets**), is a backward-compatible language extension for CSS. Material UI is based on [Google’s Material Design](https://material.io/design) to provide a high-quality, digital experience while developing front-end graphics. Material Design focuses on providing bold and crisp designs – it builds textures by focusing on how the components cast shadows and reflect light.

there are a few key advantages of designing with Material UI:

* Some frontend frameworks are not very well documented, this makes it hard to develop with them. However, Material UI has detailed [documentation](https://material-ui.com/) that makes it easy to navigate through the framework.
* Material UI stays recent with regular updates. At the time this article was written, the most recent update was *v4.11.0* (dated July 1, 2020).
* The components throughout are consistent in design and color tones, which allows the developed application/webpage to look aesthetically appealing.

Material Design is Google’s design language for the web centered around cards, grid-based layouts, and responsive animations. With [Material-UI](https://material-ui.com/), a compact, customizable, and beautiful collection of components and utilities for React, putting the Material Design spec to use in your React app is a breeze.

## Usage

The Material-UI library is composed of React components for layout, forms, navigation, and miscellaneous widgets. Let’s go over some of them here.

### Button

The simplest of these components is the Button, imported from @material-ui/core/Button, which produces a nifty ripple effect when clicked. Like the native HTML <button>, Buttons may contain text, icons, or any other React nodes. In the following example, the icons are imported from @material-ui/core/Icon.

Notable props for the Button component include:

* variant: The visual style of the component, either contained, outlined, fab, or empty for the default link-style.
* color: One of primary, secondary, or default, which is the same color as if it’s left empty. We’ll cover the customization of these colors later.
* mini: If the variant is set to fab (floating action button), then the size of the button is reduced.

All of the styles in the picture above were achieved using only these three props! The Button component also supports common props like className, aria-label, disabled, and href.

The TextField, imported from @material-ui/core/TextField, behaves like your standard React input component and supports the following props (among others):

* label: The animated label above the text input. When the component is focused, it moves above the input like the second example in the above screenshot.
* placeholder: The gray text placeholder inside of the input.
* InputProps: Props to pass to the contained Input component.

## Theming

Material-UI uses a JavaScript-based approach to theming its components called [CSS-in-JS](https://www.digitalocean.com/community/tutorials/react-css-in-js-roundup-styling-react-components). With this approach, CSS classnames are generated using JavaScript objects

Material-UI is a great way to add a polished look and feel to the controls of your React site with little effort.