**MATERIAL UI:**

It is a designing react library used to design react app. As we know designing whole UI from CSS is very difficult, as it involves lots of components. So material UI is used to handle designing.

**INSTALL:**

First create react app using npx create-react-app app name

Then open app folder and write the below command

// with npm

npm install @material-ui/core

// with yarn

yarn add @material-ui/core

Now after that install this, remember we can use either npm or yarn, I use yarn

// with npm

npm install @material-ui/icons

// with yarn

yarn add @material-ui/icons

**LOAD THE DEFAULT ROBOTO FONT AND FONT ICONS:**

We call below link in index.html file of our react app.

<link rel="stylesheet"href="https://fonts.googleapis.com/css?family=Roboto :300,400,500,700&display=swap" />

<link rel="stylesheet" href="https://fonts.googleapis.com/icon?family=Material+Icons" />

Now import button property in app.js or where needed and we can call this using <Button>buttonname</Button>. In a similar way, can use many designing components and call them where needed.

import { Button } from '@material-ui/core';

function App() {

  return (

    <div>

      Hello World

      <br />

      <Button>Hello button from material ui</Button>

    </div>

  );

}

For different styling components, we can go to material ui website, then click on get started, and then below components and, can copy paste as many things we want.

<Button variant="contained" color="primary">Hello button from material ui</Button>

This will add click effect and button color to our previous simple button

**FOR SEND ICON BUTTON:**

Above I had already mentioned that we can use any component from components section like button, grid etc.

We have to go here-> For different styling components, we can go to material ui website, then click on get started, and then below components and, can copy paste as many things we want.

Then search for buttons. In that we choose send icon button, click on show source and it will show code. We copy send button code from there, and for that it uses classes, so above in that code classes is declare so we copy/paste that and that classes use makestyles which is also defined above in that same code, so we declare outside the function. And do some necessary imports.

//importing button design from material ui library

import { Button } from '@material-ui/core';

import { makeStyles } from '@material-ui/core/styles';

import Icon from '@material-ui/core/Icon';

//for send icon button

//go to main material ui website, click on get started and then go to components

//for different designed components

const useStyles = makeStyles((theme) => ({

  button: {

    margin: theme.spacing(1),

  },

}));

function App() {

  const classes = useStyles();//send button use classes property, so if not defined it, it cannot be used,

  //so above copy/paste usestyle from material ui send icon button component and use it here in classes.

  //All thing is from send icon button

      <div>

      <Button

        variant="contained"

        color="primary"

        className={classes.button}

        endIcon={<Icon>send</Icon>}

      >

        Send

      </Button>

**GRID COMPONENT:**

Grid is like division of given space in different section. Like in fb, we have 3 main grids. Left one showing our groups and games, right one showing our chat and friends, and the middle one showing the timeline. So there are three main grids, and in those three main grids their can be multiple grids.

So grid divide given space or available width into 12 coloumns.

Like if we want one component to take up whole space, we assign 12 coloumns to it.

If we want two components sharing half of the width, we assign 6 coloumns to both of them.

If we want 3 components, we can assign 4 columns each and so on.

//importing grid component from material ui

import Grid from '@material-ui/core/Grid';

<div>

      <Grid container spacing={3}>

        <Grid item xs={12} style={{backgroundColor:"#303F9F"}}>

          <p style={{color:"white"}}>Hello world 1</p>

        </Grid>

        <Grid item xs={6} style={{backgroundColor:"green"}}>

          <p style={{color:"white"}}>Hello world 2</p>

        </Grid>

        <Grid item xs={6} style={{backgroundColor:"orange"}}>

          <p style={{color:"white"}}>Hello world 3</p>

        </Grid>

        <Grid item xs={4} style={{backgroundColor:"red"}}>

          <p style={{color:"white"}}>Hello world 4</p>

        </Grid>

        <Grid item xs={4} style={{backgroundColor:"green"}}>

          <p style={{color:"white"}}>Hello world 5</p>

        </Grid>

        <Grid item xs={4} style={{backgroundColor:"blue"}}>

          <p style={{color:"white"}}>Hello world 6</p>

        </Grid>

      </Grid>

      </div>

In above, we created 3 different sections, one taking whole width representing by color code #303F9F

Secondly, the whole section is divided into half, where both components taking 6 columms each representing by green and orange.

And the third section is taking 3 components as we pass 4 columns to those three components reperesenting by red green and blue colors.

**IMPORTANCE OF useStyles:**

This is like css, we can add different properties to it and we can call it in components with

<button className ={classes.propertyname}>Text</button>

Let say I have created property backgroundColor: black, now if I want to make background color black of only send button, then in send button tag, I call

Property like

className={class.backgroundColor}

so simple it is

**USING APP BAR COMPONENT:**

//importing for the app bar

import IconButton from '@material-ui/core/IconButton';

import MenuIcon from '@material-ui/icons/Menu';

import AppBar from '@material-ui/core/AppBar';

import Toolbar from '@material-ui/core/Toolbar';

import Typography from '@material-ui/core/Typography';

Now do some changes in useStyles as per appbar requirement, which already given by material ui, just copy paste it

const useStyles = makeStyles((theme) => ({

  button: {

    margin: theme.spacing(1),

  },

    //Add below two properties for app bar

    root: {

      flexGrow: 1,

    },

    menuButton: {

      marginRight: theme.spacing(2),

    },

    title: {

      flexGrow: 1,

    },

    //self made property

    loginButtoncolor: {

      backgroundColor: "red"

    },

}));

Here the 2 3 and 4 property provided by the material ui, and the last property loginButtonColor is made by me. What does it do is that it changes login button color in app bar, so I just need to call it like

className={classes.loginButtonColor} where ever login button is used

      <div className={classes.root}>

            <AppBar position="static">

              <Toolbar>

                <IconButton edge="start" className={classes.menuButton} color="inherit" aria-label="menu">

                  <MenuIcon />

                </IconButton>

                <Typography variant="h6" className={classes.title}>

                  News

                </Typography>

                <Button color="inherit" className={classes.loginButtoncolor}>Login</Button>

              </Toolbar>

            </AppBar>

       </div>

This is the code for the app bar. I have use className={classes.loginButtonColor} in button tag of app bar

                <Button color="inherit" className={classes.loginButtoncolor}>Login</Button>

So it is very simple to use