**PRACTICAL 1**

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| **Aim** | **Install & Configure Visual Studio Code as an IDE, setup an environment for**  **React by downloading Node.js and install React framework along with its**  **packages. Understand the folder structure used by React and develop a “Hello**  **World Application”.** |
|  | **Source code of App.js.**  import logo from './logo.svg';  import './App.css';  function App() {    return (      <div className="App">        <header className="App-header">          <img src={logo} className="App-logo" alt="logo" />          <p>            ID: 20DCS083 <br/>            Name: Naitik Patel          </p>          <a            className="App-link"            href="https://reactjs.org"            target="\_blank"            rel="noopener noreferrer"          >            Learn React          </a>        </header>      </div>    );  }  export default App; |
|  | **Output Screenshot:** |

**PRACTICAL 2**

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| **Aim** | **Implement React Routing for navigating 5 different webpages. Design a**  **responsive navbar in ReactJS by using media queries, Material-UI/React Bootstrap.** |
|  | **Source code of App.js:**  import './App.css';  import DenseAppBar from './DenseAppBar';  import { Route } from 'react-router-dom';  import { Routes } from 'react-router';  import Home from './comp/Home';  import Contact from './comp/Contact';  import About from './comp/About';  function App() {    return (      <>      <div className='Container'>        <DenseAppBar />        <Routes>                <Route path="/" element={<Home/>}/>                <Route path="/Home" element={<Home/>}/>                <Route path="/About" element={<About/>}/>                <Route path="/Contact" element={<Contact/>}/>        </Routes>    </div>  </>    );  }  export default App;  **Source code of Home.js and Home.css:**  import React from "react";  import "../App.css";  function Home() {    return (      <div className="container">        <h1 style={{ color: "white" }}>Home Page</h1>      </div>    );  }  export default Home;  **Source code of About.js and About.css:**  import React from 'react'  function About() {    return (      <div className="container">        <h1 style={{ color: "white" }}>About Page</h1>      </div>    )  }  export default About  **Source code of Contact.js and Contact.css:**  import React from 'react'  function Contact() {    return (      <div className="container">        <h1 style={{ color: "white" }}>Contact Page</h1>      </div>    )  }  export default Contact  **Source code of Navbar.js and Navbar.css:**  import \* as React from 'react';  import AppBar from '@mui/material/AppBar';  import Box from '@mui/material/Box';  import Toolbar from '@mui/material/Toolbar';  import IconButton from '@mui/material/IconButton';  import Typography from '@mui/material/Typography';  import Menu from '@mui/material/Menu';  import MenuIcon from '@mui/icons-material/Menu';  import Container from '@mui/material/Container';  import Avatar from '@mui/material/Avatar';  import Button from '@mui/material/Button';  import Tooltip from '@mui/material/Tooltip';  import MenuItem from '@mui/material/MenuItem';  import AdbIcon from '@mui/icons-material/Adb';  import { Link } from 'react-router-dom';  import './App.css';  const pages = ['Home', 'About', 'Contact'];  const settings = ['Profile', 'Account', 'Dashboard', 'Logout'];  const ResponsiveAppBar = () => {    const [anchorElNav, setAnchorElNav] = React.useState(null);    const [anchorElUser, setAnchorElUser] = React.useState(null);    const handleOpenNavMenu = (event) => {      setAnchorElNav(event.currentTarget);    };    const handleOpenUserMenu = (event) => {      setAnchorElUser(event.currentTarget);    };    const handleCloseNavMenu = () => {      setAnchorElNav(null);    };    const handleCloseUserMenu = () => {      setAnchorElUser(null);    };    return (      <AppBar className='navbar' color='transparent' position="static">        <Container maxWidth="xl">          <Toolbar disableGutters>            <AdbIcon sx={{ display: { xs: 'none', md: 'flex',color:'white' }, mr: 1 }} />            <Typography              variant="h6"              noWrap              component="a"              href="/"              sx={{                mr: 2,                display: { xs: 'none', md: 'flex' },                fontFamily: 'monospace',                fontWeight: 700,                letterSpacing: '.3rem',                color: 'white',                textDecoration: 'none',              }}            >              LOGO            </Typography>            <Box sx={{ flexGrow: 1, display: { xs: 'flex', md: 'none' } }}>              <IconButton                size="large"                aria-label="account of current user"                aria-controls="menu-appbar"                aria-haspopup="true"                onClick={handleOpenNavMenu}                color="inherit"              >                <MenuIcon />              </IconButton>              <Menu                id="menu-appbar"                anchorEl={anchorElNav}                anchorOrigin={{                  vertical: 'bottom',                  horizontal: 'left',                }}                keepMounted                transformOrigin={{                  vertical: 'top',                  horizontal: 'left',                }}                open={Boolean(anchorElNav)}                onClose={handleCloseNavMenu}                sx={{                  display: { xs: 'block', md: 'none' },                }}              >                {pages.map((page) => (                  <MenuItem key={page} onClick={handleCloseNavMenu}>                    <Typography textAlign="center" >                      <Link style={{textDecoration:"none",color:"black"}} to={`/${page}`}>                      {page}                      </Link>                    </Typography>                  </MenuItem>                ))}              </Menu>            </Box>            <AdbIcon sx={{ display: { xs: 'flex', md: 'none' }, mr: 1 }} />            <Typography              variant="h5"              noWrap              component="a"              href=""              sx={{                mr: 2,                display: { xs: 'flex', md: 'none' },                flexGrow: 1,                fontFamily: 'monospace',                fontWeight: 700,                letterSpacing: '.3rem',                color: 'inherit',                textDecoration: 'none',              }}            >              LOGO            </Typography>            <Box sx={{ flexGrow: 1, display: { xs: 'none', md: 'flex' } }}>              {pages.map((page) => (                <Button                  key={page}                  onClick={handleCloseNavMenu}                  sx={{ my: 2, color: 'white', display: 'block' }}                >                  <Link style={{textDecoration:"none",color:"white"}} to={`/${page}`}>                      {page}                      </Link>                </Button>              ))}            </Box>            <Box color={"black"}  sx={{ flexGrow: 0 }}>              <Tooltip title="Open settings">                <IconButton onClick={handleOpenUserMenu} sx={{ p: 0 }}>                  <Avatar alt="Remy Sharp" src="/static/images/avatar/2.jpg" />                </IconButton>              </Tooltip>              <Menu                sx={{ mt: '45px' }}                id="menu-appbar"                anchorEl={anchorElUser}                anchorOrigin={{                  vertical: 'top',                  horizontal: 'right',                }}                keepMounted                transformOrigin={{                  vertical: 'top',                  horizontal: 'right',                }}                open={Boolean(anchorElUser)}                onClose={handleCloseUserMenu}              >                {settings.map((setting) => (                  <MenuItem key={setting} onClick={handleCloseUserMenu}>                    <Typography textAlign="center">{setting}</Typography>                  </MenuItem>                ))}              </Menu>            </Box>          </Toolbar>        </Container>      </AppBar>    );  };  export default ResponsiveAppBar;  **Source code App.css:**  @import url('https://fonts.googleapis.com/css2?family=Merriweather+Sans:wght@500;800&display=swap');  body,html{    height: 100%;  }  .App {    text-align: center;  }  .Container{      text-align: center;  }  body{    background:rgb(0, 144, 139);    background-attachment: fixed;  } |
|  | **Output Screenshot:**      **Folder Structure:** |

**PRACTICAL 3**

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| --- | --- |
| **Aim** | **Create React Sidebar Navigation Menu for a webpage. Implement the concept of React Hooks for backward compatibility and faster user experience.** |
|  | **Source code of App.js:**  import "./App.css";  import About from "./component/About";  import Home from "./component/Home";  import Contact from "./component/Contact";  import { BrowserRouter, Route } from 'react-router-dom';  import { Routes } from 'react-router';  import Navbar from "./component/Navbar";  import { useState } from "react";  function App() {    const [Button, setButton] = useState(true);    const handleclick=()=>{      setButton(!Button);    }    return (<>      <button className="button-navbar" onClick={handleclick}>{!Button ? `Show` : `Hide` }</button>      <div className="Flex-box">       { Button && <Navbar/>}        <div className="mainpg">          <BrowserRouter>          <Routes>                <Route path="/home" element={<Home />}/>                <Route path="/About" element={<About/>}/>                <Route path="/Contact" element={<Contact/>}/>        </Routes>        </BrowserRouter>        </div>      </div>      </>    );  }  export default App;  **Source code of Home.js:**  import React from "react";  import { useEffect } from "react";  const Home = () => {    useEffect(() => {      document.title = "Home Page";    }, []);    return<div style={{textAlign:"center",display:"flex",flexDirection:"column",justifyContent:"center",height:"100vh"}}>    <h1 style={{fontSize:"60px"}}>     This is Home Page    </h1>    <h1 style={{margin:"20px"}}>Made by 20DCS083 Naitik Patel</h1>    </div>;  };  export default Home;  **Source code of About.js and About.css:**  import React from 'react'  import { useEffect } from 'react';  const About = () => {    useEffect(() => {      document.title = "About Page";    }, []);    return (      <div style={{textAlign:"center",display:"flex",flexDirection:"column",justifyContent:"center",height:"100vh"}}>      <h1 style={{fontSize:"60px"}}>     This is About Page    </h1>    <h1 style={{margin:"20px"}}>Made by 20DCS083 Naitik Patel</h1>    </div>    )  }  export default About  **Source code of Contact.js and Contact.css:**  import React from 'react'  const Contact = () => {    return (      <div style={{textAlign:"center",display:"flex",flexDirection:"column",justifyContent:"center",height:"100vh"}}>      <h1 style={{fontSize:"60px"}}>     This is Contact Page    </h1>    <h1 style={{margin:"20px"}}>Made by 20DCS083 Naitik Patel</h1>    </div>    )  }  export default Contact  **Source code of Navbar.js and Navbar.css:**  import React from "react";  const Navbar = () => {    return (      <div className="Sidebar">        <div className="wrapper">          <div className="sidebar">            <h1              style={{                color: "#072563",                textAlign: "center",                fontFamily: " 'Kanit', sans-serif",              }}            >              Sidebar            </h1>            <a style={{ decoretion: "none" }} href="/home">            <li              style={{                marginTop: "20px",                marginLeft: "10px",                display: "flex",                cursor: "pointer",              }}            >                  <i                  style={{ marginRight: "10px" }}                  className="fa-solid fa-house-chimney-user mx-2 my-3"                />                <h4 style={{ textAlign: "center", width: "100px" }}>Home</h4>              </li>            </a>            <a href="/about">            <li              style={{                marginTop: "20px",                marginLeft: "10px",                display: "flex",                cursor: "pointer",              }}            >                  <i                  style={{ marginRight: "10px" }}                  className="fa-solid fa-user mx-2 my-3"                />                <h4 style={{ textAlign: "center", width: "100px" }}>About</h4>            </li>            </a>            <a href="/contact">              <li              style={{                marginTop: "20px",                marginLeft: "10px",                display: "flex",                cursor: "pointer",              }}            >              <i                style={{ marginRight: "10px" }}                className="fa-solid fa-bullseye mx-2 my-3"              />              <h4 style={{ textAlign: "center", width: "100px" }}>Contact</h4>            </li>            </a>            <li              style={{                marginTop: "20px",                marginLeft: "10px",                display: "flex",                cursor: "pointer",              }}            >              <i                style={{ marginRight: "10px" }}                className="fa-solid fa-calendar mx-2 my-3"              />              <h4 style={{ textAlign: "center", width: "100px" }}>Project</h4>            </li>            <li              style={{                marginTop: "20px",                marginLeft: "10px",                display: "flex",                cursor: "pointer",              }}            >              <i                style={{ marginRight: "10px" }}                className="fa-solid fa-flag mx-2 my-3"              />              <h4 style={{ textAlign: "center", width: "100px" }}>Report</h4>            </li>          </div>        </div>      </div>    );  };  export default Navbar;  **Source code of Navbar.css:**  @import url('https://fonts.googleapis.com/css2?family=Kanit:wght@500&display=swap');  .App {    text-align: center;  }  .button-navbar{    width: 110px;    height: 40px;    margin: 10px;    background-color: white;    color: black;    font-size: 20px;    border-radius: 7px;  }  \*{    margin: 0;    padding: 0;    box-sizing: border-box;    list-style: none;    text-decoration: none;    font-family: 'Josefin Sans', sans-serif;  }  .logo1{    color: #e0e4e8;    margin-top: 20px;    margin-left: 35px;  }  .logo1 h6{    font-size: 15px;    margin-left: 20px;  }  .usertop .fas{    color: #fff;    float: right;    margin: 20px  }  .fas{    color: #190871;  }  .logo{  text-align:center;  }  body{     background-color: #072563;  }  .button{    float:right ;    height:40px;    width:200px;    background-color:#190871;    color:#fff;    border-top-left-radius: 20px;    border-bottom-right-radius: 20px;  }  .heading{    color: rgba(25, 31, 94, 0.7);padding-top:20px;padding-bottom:10px;    font-family: 'Times New Roman', Times, serif;    font-size: 40px;  }  .wrapper .sidebar{    position:relative;    /\* float: left; \*/    width: 225px;    height: 100vh;    background: #ffffff;    color: rgb(12, 12, 99);    padding: 15px 15px;  }  .text{  color:#072563  }  .fa-solid{  color: #072563;  }  .button .fa-solid{  color:#e0e4e8  }  .logo .fa-brands{    color: #072563;  }  .wrapper{    display: block;    float: left;    margin-right: 10px;    }  .Flex-box{    display:flex;    width:100%;  }  .mainpg{    width: 100%;    padding-left: 35px;    padding-right: 35px;    padding-bottom: 35px;    border-radius: 20px;    margin-top:5px;    margin-right:20px;    background-color: #ffffff;    height: auto;  } |
|  | **Output Screenshot:** |