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Practical No: 12

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Aim: Implementation of Nodejs Express Applications.

Q) Create functional components to demonstrate

CODE (app.js):

```
const express = require('express');
const path = require('path');
const app = express();
const PORT = process.env.PORT || 3000;

app.set('view engine', 'ejs');
app.set('views', path.join(__dirname, 'views'));

app.use(express.static(path.join(__dirname,
'public')));

const napoleonData = {
    title: "Napoleon Bonaparte - Emperor of the
French",
    sections: {
        earlyLife: {
            title: "Early Life",
            content: "Napoleon Bonaparte was
born on August 15, 1769, in Ajaccio, Corsica. He
attended military school in France and quickly
rose through the ranks of the military during
the French Revolution."
        },
        militaryCampaigns: {
            title: "Military Campaigns",
            content: "Napoleon led successful
campaigns in the Italian Peninsula and Egypt,
establishing his reputation as a brilliant
military strategist. His most famous victories
include Austerlitz, Jena, and Friedland."
        },
        emperor: {
            title: "Emperor of the French",
            content: "In 1804, Napoleon crowned
himself Emperor of the French. He implemented
the Napoleonic Code, which influenced legal
systems worldwide, and reformed France's
education system."
        },
        exile: {
            title: "Exile and Death",
            content: "After defeat in the War of
the Sixth Coalition, Napoleon was exiled to Elba
in 1814. He escaped in 1815 but was defeated at
Waterloo. He died in exile on Saint Helena in
1821."
        }
    },
    timeline: [
        { year: "1769", event: "Born in Corsica"
},
        { year: "1796", event: "Marries
Joséphine de Beauharnais" },
        { year: "1799", event: "Becomes First
Consul of France" },
        { year: "1804", event: "Crowned Emperor"
},
        { year: "1812", event: "Invades Russia"
},
        { year: "1814", event: "Exiled to Elba"
},
        { year: "1815", event: "Defeated at
Waterloo" },
        { year: "1821", event: "Dies in Saint
Helena" }
    ]
};

app.get('/', (req, res) => {
    res.render('index', { data: napoleonData });
```

```javascript
});

app.listen(PORT, () => {
```

CODE (views/index.js)

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-
width, initial-scale=1.0">
    <title>
        <%= data.title %>
    </title>
    <link rel="preconnect"
href="https://fonts.googleapis.com">
    <link rel="preconnect"
href="https://fonts.gstatic.com" crossorigin>
    <link
        href="https://fonts.googleapis.com/css2?
family=Playfair+Display:wght@400;500;600;700&fam
ily=Inter:wght@300;400;500;600&display=swap"
        rel="stylesheet">
    <link rel="stylesheet"
href="/css/style.css">
</head>
<body>
    <header>
        <nav class="navbar">
            <div class="container">
                <div class="nav-brand">
                    <h1>
                        <%= data.title %>
                    </h1>
                </div>
                <ul class="nav-links">
                    <li><a href="#early-
life">Early Life</a></li>
                    <li><a
href="#military">Military</a></li>
                    <li><a
href="#emperor">Emperor</a></li>
                    <li><a
href="#exile">Exile</a></li>
                    <li><a
href="#timeline">Timeline</a></li>
                    <li><a
href="#gallery">Gallery</a></li>
                </ul>
            </div>
        </nav>
    </header>
    <main>
        <section class="hero">
            <div class="hero-content">
                <h2>The Rise and Fall of an
Emperor</h2>
                <p>Explore the life and legacy
of one of history's most fascinating military
leaders and rulers</p>
                <div class="hero-stats">
                    <div class="stat">
```

```html
                        <span class="stat-
number">52</span>
                        <span class="stat-
label">Battles Fought</span>
                    </div>
                    <div class="stat">
                        <span class="stat-
number">15</span>
                        <span class="stat-
label">Years as Emperor</span>
                    </div>
                    <div class="stat">
                        <span class="stat-
number">12M</span>
                        <span class="stat-
label">Square Km Empire</span>
                    </div>
                </div>
            </div>
            <div class="hero-scroll">
                <span>↓</span>
            </div>
        </section>
        <section id="early-life" class="content-
section with-image">
            <div class="container">
                <div class="section-header">
                    <h2>
                        <%=
data.sections.earlyLife.title %>
                    </h2>
                    <div class="section-
divider"></div>
                </div>
                <div class="content-grid">
                    <div class="content-text">
                        <p>
                            <%=
data.sections.earlyLife.content %>
                        </p>
                        <div class="key-facts">
                            <h3>Key Facts</h3>
                            <ul>
                                <li>Born in
Ajaccio, Corsica on August 15, 1769</li>
                                <li>Attended
military school in Brienne, France</li>
                                <li>Graduated
from École Militaire in Paris at age 16</li>
                                <li>Spoke French
with a Corsican accent throughout his life</li>
                            </ul>
                        </div>
                    </div>
                    <div class="content-image">
                        <img
src="https://upload.wikimedia.org/wikipedia/comm
```

```javascript
    console.log(`Napoleon SPA running on
http://localhost:${PORT}`);
});
```

```html
ons/thumb/7/7a/Maison_bonaparte.jpg/800px-
Maison_bonaparte.jpg"
                                    alt="Napoleon's
Birthplace in Corsica">
                            <p class="image-
caption">Napoleon's birthplace in Ajaccio,
Corsica</p>
                    </div>
                </div>
            </div>
        </section>
        <section id="military" class="content-
section with-image">
            <div class="container">
                <div class="section-header">
                    <h2>
                        <%=
data.sections.militaryCampaigns.title %>
                    </h2>
                    <div class="section-
divider"></div>
                </div>
                <div class="content-grid
reverse">
                    <div class="content-text">
                        <p>
                            <%=
data.sections.militaryCampaigns.content %>
                        </p>
                        <div class="battles-
list">
                            <h3>Major
Battles</h3>
                            <div class="battle-
item">
                                <span
class="battle-name">Austerlitz</span>
                                <span
class="battle-year">1805</span>
                            </div>
                            <div class="battle-
item">
                                <span
class="battle-name">Jena-Auerstedt</span>
                                <span
class="battle-year">1806</span>
                            </div>
                            <div class="battle-
item">
                                <span
class="battle-name">Friedland</span>
                                <span
class="battle-year">1807</span>
                            </div>
                            <div class="battle-
item">
                                <span
class="battle-name">Waterloo</span>
                                <span
class="battle-year">1815</span>
                            </div>
                        </div>
                    </div>
                    <div class="content-image">
                        <img
src="https://upload.wikimedia.org/wikipedia/comm

ons/thumb/2/28/Napoleon_bonaparte.jpg/800px-
Napoleon_bonaparte.jpg"
                                    alt="Napoleon
Bonaparte">
                            <p class="image-
caption">Napoleon Bonaparte in his military
uniform</p>
                    </div>
                </div>
            </div>
        </section>
        <section id="emperor" class="content-
section with-image">
            <div class="container">
                <div class="section-header">
                    <h2>
                        <%=
data.sections.emperor.title %>
                    </h2>
                    <div class="section-
divider"></div>
                </div>
                <div class="content-grid">
                    <div class="content-text">
                        <p>
                            <%=
data.sections.emperor.content %>
                        </p>
                        <div
class="achievements">
                            <h3>Key
Achievements</h3>
                            <div
class="achievement-grid">
                                <div
class="achievement-item">
                                    <div
class="achievement-icon">⚖️</div>
                                    <h4>Napoleon
ic Code</h4>
                                    <p>Legal
system that influenced civil law worldwide</p>
                                </div>
                                <div
class="achievement-item">
                                    <div
class="achievement-icon">🏛️</div>
                                    <h4>Bank of
France</h4>
                                    <p>Establish
ed central banking system</p>
                                </div>
                                <div
class="achievement-item">
                                    <div
class="achievement-icon">🎓</div>
                                    <h4>Educatio
n Reform</h4>
                                    <p>Created
lycée system for secondary education</p>
                                </div>
                            </div>
                        </div>
                    </div>
                    <div class="content-image">
```

```
                        <img
src="https://upload.wikimedia.org/wikipedia/comm
ons/thumb/3/30/Napoleon_II_at_the_age_of_four.jp
g/800px-Napoleon_II_at_the_age_of_four.jpg"
                            alt="Napoleon's
Coronation">
                        <p class="image-
caption">Napoleon's coronation as Emperor of the
French</p>
                    </div>
                </div>
            </div>
        </section>
        <section id="exile" class="content-
section with-image">
            <div class="container">
                <div class="section-header">
                    <h2>
                        <%=
data.sections.exile.title %>
                    </h2>
                    <div class="section-
divider"></div>
                </div>
                <div class="content-grid
reverse">
                    <div class="content-text">
                        <p>
                            <%=
data.sections.exile.content %>
                        </p>
                        <div class="exile-
timeline">
                            <div class="exile-
event">
                                <div
class="exile-date">1814</div>
                                <div
class="exile-details">
                                    <h4>First
Exile - Elba</h4>
                                    <p>Exiled to
the island of Elba after abdication</p>
                                </div>
                            </div>
                            <div class="exile-
event">
                                <div
class="exile-date">1815</div>
                                <div
class="exile-details">
                                    <h4>Hundred
Days</h4>
                                    <p>Escaped
Elba and returned to power for 100 days</p>
                                </div>
                            </div>
                            <div class="exile-
event">
                                <div
class="exile-date">1815-1821</div>
                                <div
class="exile-details">
                                    <h4>Final
Exile - Saint Helena</h4>
                                    <p>Exiled to
remote island where he died in 1821</p>
                                </div>
                            </div>
                        </div>
                    </div>
                    <div class="content-image">
                        <img
src="https://upload.wikimedia.org/wikipedia/comm
ons/thumb/5/5c/Longwood_house_2.jpg/800px-
Longwood_house_2.jpg"
                            alt="Napoleon's
Exile Home">
                        <p class="image-
caption">Longwood House, Napoleon's final
residence on Saint Helena</p>
                    </div>
                </div>
            </div>
        </section>
        <section id="timeline" class="content-
section">
            <div class="container">
                <div class="section-header">
                    <h2>Historical Timeline</h2>
                    <div class="section-
divider"></div>
                </div>
                <div class="timeline">
                    <%
data.timeline.forEach((item, index)=> { %>
                        <div class="timeline-
item">
                            <div
class="timeline-year">
                                <%= item.year %>
                            </div>
                            <div
class="timeline-event">
                                <div
class="event-content">
                                    <h3>
                                        <%=
item.event %>
                                    </h3>
                                    <p>Significa
nt event in Napoleon's life and career</p>
                                </div>
                            </div>
                        </div>
                    <% }); %>
                </div>
            </div>
        </section>
        <section id="gallery" class="content-
section">
            <div class="container">
                <div class="section-header">
                    <h2>Historical Gallery</h2>
                    <div class="section-
divider"></div>
                </div>
                <div class="gallery-grid">
                    <div class="gallery-item">
                        <img
src="https://upload.wikimedia.org/wikipedia/comm
```

```html
                    ons/thumb/4/40/Jacques-Louis_David_-
                    _Bonaparte_franchissant_le_Grand_Saint-
                    Bernard%2C_20_mai_1800_-
                    _Google_Art_Project.jpg/800px-Jacques-
                    Louis_David_-
                    _Bonaparte_franchissant_le_Grand_Saint-
                    Bernard%2C_20_mai_1800_-_Google_Art_Project.jpg"
                                 alt="Napoleon
                    Crossing the Alps">
                                 <div class="gallery-
                    caption">Napoleon Crossing the Alps</div>
                             </div>
                             <div class="gallery-item">
                                 <img
                    src="https://upload.wikimedia.org/wikipedia/comm
                    ons/thumb/c/cf/Franz_Ruben_-
                    _Battle_of_Austerlitz.jpg/800px-Franz_Ruben_-
                    _Battle_of_Austerlitz.jpg"
                                 alt="Battle of
                    Austerlitz">
                                 <div class="gallery-
                    caption">Battle of Austerlitz</div>
                             </div>
                             <div class="gallery-item">
                                 <img
                    src="https://upload.wikimedia.org/wikipedia/comm
                    ons/thumb/7/76/Napoleon_at_Waterloo.jpg/800px-
                    Napoleon_at_Waterloo.jpg"
                                 alt="Napoleon at
                    Waterloo">
                                 <div class="gallery-
                    caption">Napoleon at Waterloo</div>
                             </div>
                             <div class="gallery-item">
                                 <img
                    src="https://upload.wikimedia.org/wikipedia/comm
                    ons/thumb/1/14/Napoleon_I_of_France.jpg/800px-
                    Napoleon_I_of_France.jpg"
                                 alt="Napoleon I">
                                 <div class="gallery-
                    caption">Emperor Napoleon I</div>
                             </div>
                         </div>
                     </div>
                 </section>
                 <section id="legacy" class="content-
                 section bg-dark">
                     <div class="container">
                         <div class="section-header">
                             <h2>Napoleon's Legacy</h2>
                             <div class="section-
                    divider"></div>
                         </div>
                         <div class="legacy-content">
                             <div class="quote">
                                 <blockquote>
                                     "Impossible is a
                    word to be found only in the dictionary of
                    fools."
                                     <cite>- Napoleon
                    Bonaparte</cite>
                                 </blockquote>
                             </div>
                             <div class="legacy-facts">

                                    <h3>Lasting Impact</h3>
                                    <ul>
                                        <li>Napoleonic Code
                    influenced legal systems worldwide</li>
                                        <li>Reformed
                    education and administrative systems in
                    France</li>
                                        <li>Spread
                    revolutionary ideals across Europe</li>
                                        <li>Inspired
                    military tactics and strategy for
                    generations</li>
                                    </ul>
                                </div>
                            </div>
                        </div>
                    </section>
                </main>
                <footer>
                    <div class="container">
                        <div class="footer-content">
                            <div class="footer-section">
                                <h3>Napoleon Bonaparte</h3>
                                <p>Emperor of the French
                    (1804-1814/1815)</p>
                            </div>
                            <div class="footer-section">
                                <h4>Explore More</h4>
                                <ul>
                                    <li><a href="#early-
                    life">Early Life</a></li>
                                    <li><a
                    href="#military">Military Career</a></li>
                                    <li><a
                    href="#emperor">As Emperor</a></li>
                                    <li><a
                    href="#timeline">Timeline</a></li>
                                </ul>
                            </div>
                            <div class="footer-section">
                                <h4>Resources</h4>
                                <ul>
                                    <li><a
                    href="#">Historical Documents</a></li>
                                    <li><a href="#">Museum
                    Collections</a></li>
                                    <li><a href="#">Further
                    Reading</a></li>
                                </ul>
                            </div>
                        </div>
                        <div class="footer-bottom">
                            <p>&copy; 2024 Napoleon
                    Bonaparte Historical Archive. Educational
                    purposes only.</p>
                            <p>All images from Wikimedia
                    Commons - Public Domain</p>
                        </div>
                    </div>
                </footer>
                <script src="/js/app.js"></script>
            </body>
            </html>
```
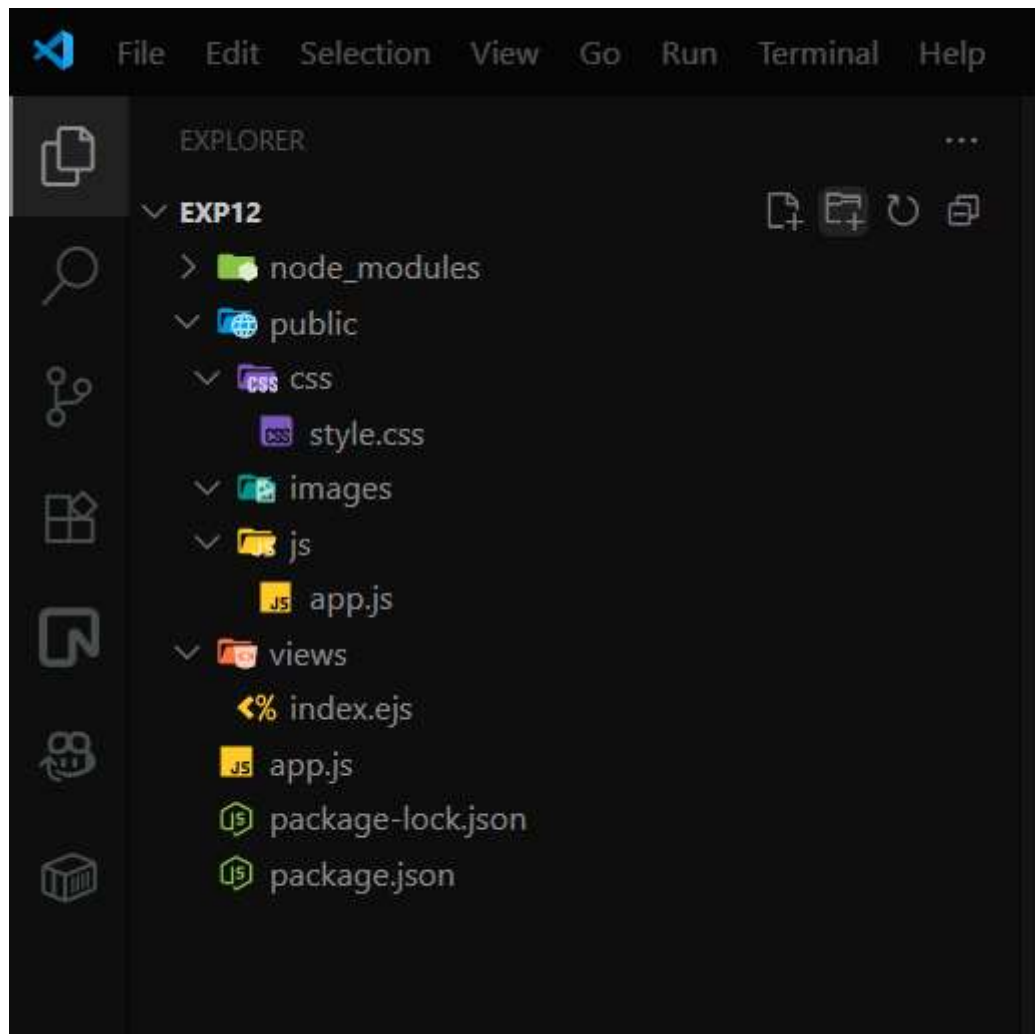
Folder Structure

Folder Structure: