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Roll No: 242466

Practical No: 12

Date Of Performance: 09/10/2025

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
```

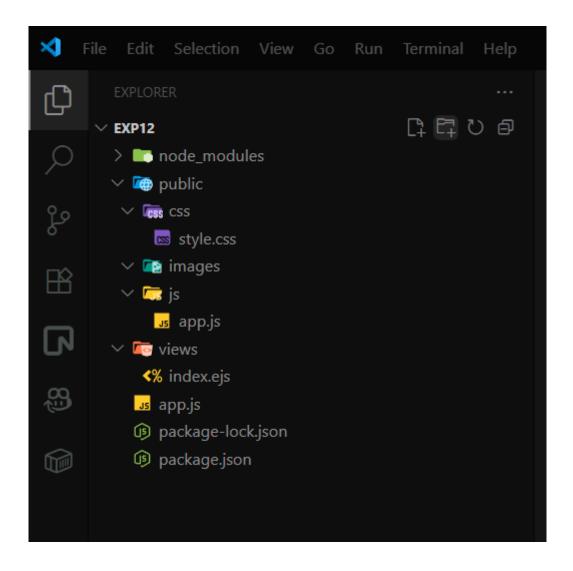
```
the Napoleonic Code, which influenced legal
systems worldwide, and reformed France's
education system."
        },
        exile: {
            title: "Exile and Death",
            content: "After defeat in the War of
the Sixth Coalition, Napoleon was exiled to Elba
in 1814. He escaped in 1815 but 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" }
    1
};
app.get('/', (req, res) => {
    res.render('index', { data: napoleonData });
```

```
});
                                                            console.log(`Napoleon SPA running on
                                                        http://localhost:${PORT}`);
app.listen(PORT, () => {
CODE (views/index.js)
<!DOCTYPE html>
                                                                                <span class="stat-</pre>
                                                        number">52</span>
<html lang="en">
<head>
                                                                                <span class="stat-</pre>
    <meta charset="UTF-8">
                                                        label">Battles Fought</span>
    <meta name="viewport" content="width=device-</pre>
                                                                            </div>
width, initial-scale=1.0">
                                                                            <div class="stat">
    <title>
                                                                                <span class="stat-</pre>
       data.title %>
                                                        number">15</span>
    </title>
                                                                                <span class="stat-</pre>
    <link rel="preconnect"</pre>
                                                        label">Years as Emperor</span>
href="https://fonts.googleapis.com">
                                                                            </div>
    link rel="preconnect"
                                                                            <div class="stat">
href="https://fonts.gstatic.com" crossorigin>
                                                                                <span class="stat-</pre>
                                                        number">12M</span>
    link
        href="https://fonts.googleapis.com/css2?
                                                                                <span class="stat-</pre>
family=Playfair+Display:wght@400;500;600;700&fam
                                                        label">Square Km Empire</span>
ily=Inter:wght@300;400;500;600&display=swap"
                                                                            </div>
       rel="stylesheet">
                                                                        </div>
    <link rel="stylesheet"</pre>
                                                                    </div>
href="/css/style.css">
                                                                    <div class="hero-scroll">
</head>
                                                                        <span>↓</span>
<body>
                                                                    </div>
    <header>
                                                                </section>
                                                                <section id="early-life" class="content-</pre>
        <nav class="navbar">
           <div class="container">
                                                        section with-image">
                <div class="nav-brand">
                                                                    <div class="container">
                                                                        <div class="section-header">
                    <h1>
                        <%= data.title %>
                                                                            <h2>
                    </h1>
                </div>
                                                        data.sections.earlyLife.title %>
                </h2>
                    <a href="#early-
                                                                            <div class="section-
                                                        divider"></div>
life">Early Life</a>
                    <1i><1
                                                                        </div>
href="#military">Military</a>
                                                                        <div class="content-grid">
                                                                            <div class="content-text">
                    <a
href="#emperor">Emperor</a>
                                                                                >
                    <a
                                                                                    <%=
href="#exile">Exile</a>
                                                        data.sections.earlyLife.content %>
                                                                                <div class="key-facts">
href="#timeline">Timeline</a>
                   <a</li>
                                                                                    <h3>Key Facts</h3>
href="#gallery">Gallery</a>
                                                                                    <l>
               Born in
            </div>
                                                        Ajaccio, Corsica on August 15, 1769
        </nav>
                                                                                        Attended
    </header>
                                                        military school in Brienne, France
    <main>
                                                                                        Graduated
        <section class="hero">
                                                        from École Militaire in Paris at age 16
            <div class="hero-content">
                                                                                       Spoke French
                <h2>The Rise and Fall of an
                                                        with a Corsican accent throughout his life
Emperor</h2>
                                                                                    Explore the life and legacy
                                                                                </div>
of one of history's most fascinating military
                                                                            </div>
                                                                            <div class="content-image">
leaders and rulers
                <div class="hero-stats">
                    <div class="stat">
                                                        src="https://upload.wikimedia.org/wikipedia/comm
```

```
ons/thumb/7/7a/Maison_bonaparte.jpg/800px-
                                                                                   <%=
Maison_bonaparte.jpg"
                                                        data.sections.emperor.content %>
                           alt="Napoleon's
                                                                               Birthplace in Corsica">
                                                                               <div
                       class="achievements">
caption">Napoleon's birthplace in Ajaccio,
                                                                                   <h3>Key
Corsica
                                                        Achievements</h3>
                    </div>
                                                                                    <div
                </div>
                                                        class="achievement-grid">
            </div>
                                                                                       <div
                                                        class="achievement-item">
        </section>
        <section id="military" class="content-</pre>
                                                                                           <div
section with-image">
                                                        class="achievement-icon"> 90 </div>
           <div class="container">
                                                                                           <h4>Napoleon
                <div class="section-header">
                                                        ic Code</h4>
                    <h2>
                                                                                           Legal
                                                        system that influenced civil law worldwide
data.sections.militaryCampaigns.title %>
                                                                                       </div>
                    </h2>
                                                                                       <div
                    <div class="section-
                                                        class="achievement-item">
divider"></div>
                                                                                           <div
                </div>
                                                        class="achievement-icon"> m</div>
                <div class="content-grid
                                                                                           <h4>Bank of
reverse">
                                                        France</h4>
                    <div class="content-text">
                                                                                           Establish
                       >
                                                        ed central banking system
                           <%=
                                                                                       </div>
data.sections.militaryCampaigns.content %>
                                                                                       <div
                                                        class="achievement-item">
                       <div class="battles-
                                                                                           <div
list">
                                                        <h3>Major
                                                                                           <h4>Educatio
Battles</h3>
                                                        n Reform</h4>
                           <div class="battle-
                                                                                           Created
item">
                                                        lycée system for secondary education
                               <snan
                                                                                       </div>
class="battle-name">Austerlitz</span>
                                                                                   </div>
                    </id>
                                                                               </div>
                    <div class="content-image">
                                                                           </div>
                       <ima
                                                                           <div class="content-image">
src="https://upload.wikimedia.org/wikipedia/comm
                                                                               <ima
ons/thumb/2/28/Napoleon_bonaparte.jpg/800px-
                                                        src="https://upload.wikimedia.org/wikipedia/comm
Napoleon_bonaparte.jpg"
                                                        ons/thumb/3/30/Napoleon_II_at_the_age_of_four.jp
                           alt="Napoleon
                                                        g/800px-Napoleon_II_at_the_age_of_four.jpg"
Bonaparte">
                                                                                   alt="Napoleon's
                       Coronation">
caption">Napoleon Bonaparte in his military
                                                                               uniform
                                                        caption">Napoleon's coronation as Emperor of the
                    </div>
                                                        French
                </div>
                                                                           </div>
            </div>
                                                                        </div>
        </section>
                                                                   </div>
        <section id="emperor" class="content-</pre>
                                                                </section>
section with-image">
                                                                <section id="exile" class="content-</pre>
            <div class="container">
                                                        section with-image">
                <div class="section-header">
                                                                   <div class="container">
                    <h2>
                                                                        <div class="section-header">
                                                                </section>
data.sections.emperor.title %>
                                                                <section id="gallery" class="content-</pre>
                   </h2>
                                                        section">
                    <div class="section-
                                                                    <div class="container">
divider"></div>
                                                                        <div class="section-header">
                </div>
                                                                           <h2>Historical Gallery</h2>
                <div class="content-grid">
                                                                           <div class="section-
                    <div class="content-text">
                                                        divider"></div>
                       >
```

```
</id>
                                                                               </blockquote>
               <div class="gallery-grid">
                                                                           </div>
                    <div class="gallery-item">
                                                                           <div class="legacy-facts">
                                                                               <h3>Lasting Impact</h3>
                        <img
src="https://upload.wikimedia.org/wikipedia/comm
                                                                               ons/thumb/4/40/Jacques-Louis_David_-
                                                                                   Napoleonic Code
_Bonaparte_franchissant_le_Grand_Saint-
                                                        influenced legal systems worldwide
Bernard%2C_20_mai_1800_-
                                                                                   Reformed
_Google_Art_Project.jpg/800px-Jacques-
                                                        education and administrative systems in
Louis_David_-
                                                        France
Bonaparte franchissant le Grand Saint-
                                                                                   Spread
Bernard%2C_20_mai_1800_-_Google_Art_Project.jpg"
                                                        revolutionary ideals across Europe
                           alt="Napoleon
                                                                                   Inspired
Crossing the Alps">
                                                        military tactics and strategy for
                       <div class="gallery-
                                                        generations
caption">Napoleon Crossing the Alps</div>
                                                                               </div>
                    </div>
                                                                       </div>
                   <div class="gallery-item">
                                                                   </div>
                       <ima
src="https://upload.wikimedia.org/wikipedia/comm
                                                               </section>
ons/thumb/c/cf/Franz_Ruben_-
                                                           </main>
_Battle_of_Austerlitz.jpg/800px-Franz_Ruben_-
                                                           <footer>
_Battle_of_Austerlitz.jpg"
                                                               <div class="container">
                           alt="Battle of
                                                                   <div class="footer-content">
Austerlitz">
                                                                       <div class="footer-section">
                       <div class="gallery-
                                                                           <h3>Napoleon Bonaparte</h3>
caption">Battle of Austerlitz</div>
                                                                           Emperor of the French
                   </div>
                                                        (1804-1814/1815)
                   <div class="gallery-item">
                                                                       <div class="footer-section">
                       <img
src="https://upload.wikimedia.org/wikipedia/comm
                                                                           <h4>Explore More</h4>
ons/thumb/7/76/Napoleon_at_Waterloo.jpg/800px-
                                                                           <l>
Napoleon_at_Waterloo.jpg"
                                                                               <a href="#early-
                           alt="Napoleon at
                                                       life">Early Life</a>
Waterloo">
                                                                               <1 i><a
                       <div class="gallery-
                                                       href="#military">Military Career</a>
caption">Napoleon at Waterloo</div>
                   </div>
                                                        href="#emperor">As Emperor</a>
                   <div class="gallery-item">
                                                        href="#timeline">Timeline</a>
                       <ima
src="https://upload.wikimedia.org/wikipedia/comm
                                                                           ons/thumb/1/14/Napoleon_I_of_France.jpg/800px-
                                                                       </div>
                                                                       <div class="footer-section">
Napoleon_I_of_France.jpg"
                           alt="Napoleon I">
                                                                           <h4>Resources</h4>
                       <div class="gallery-
                                                                           < [1]>
caption">Emperor Napoleon I</div>
                                                                               <a
                                                       href="#">Historical Documents</a>
                   </div>
               </div>
                                                                               <a href="#">Museum</a>
            </div>
                                                        Collections</a>
        </section>
                                                                               <a href="#">Further</a>
        <section id="legacy" class="content-</pre>
                                                        Reading</a>
section bg-dark">
                                                                           </div>
            <div class="container">
               <div class="section-header">
                                                                   </div>
                    <h2>Napoleon's Legacy</h2>
                                                                   <div class="footer-bottom">
                    <div class="section-</pre>
                                                                       © 2024 Napoleon
divider"></div>
                                                        Bonaparte Historical Archive. Educational
               </div>
                                                        purposes only.
               <div class="legacy-content">
                                                                       All images from Wikimedia
                   <div class="quote">
                                                        Commons - Public Domain
                       <blookquote>
                                                                   </div>
                                                               </div>
                           "Impossible is a
word to be found only in the dictionary of
                                                           </footer>
fools."
                                                           <script src="/js/app.js"></script>
                                                        </body>
                           <cite>- Napoleon
Bonaparte</cite>
                                                        </html>
```

Folder Structure:



OUTPUT:





