

# AssignmentNumber:14.3

## roll\_num : 2403a52213

### Task Description #1 – AI-generated HTML Page

Task: Ask AI to generate a simple HTML homepage for a "Student Info Portal" with a header, navigation menu, and footer

Expected Output:

- HTML code with <header>, <nav>, <footer>.
- Clean indentation, proper tags, and comments.

```
<!-- Header section -->
<header>
|   <h1>Student Portal</h1>
</header>

<!-- Navigation menu -->
<nav>
|   <ul>
|       <li><a href="#home">Home</a></li>
|       <li><a href="#courses">Courses</a></li>
|       <li><a href="#grades">Grades</a></li>
|       <li><a href="#schedule">Schedule</a></li>
|       <li><a href="#profile">Profile</a></li>
|   </ul>
</nav>

<!-- Main content area -->
<main>
|   <h2>Welcome to Student Portal</h2>
|   <p>Access your academic information, courses, and resources here.</p>
</main>

<!-- Footer section -->
<footer>
|   <p>&copy; 2024 Student Portal. All rights reserved.</p>
</footer>
```

### Task Description #2 – CSS Styling

Task:

Use AI to add CSS styling to Task #1 homepage for:

- Responsive navigation bar.
- Centered content section.
- Footer with light gray background.

Expected Output:

- HTML + CSS combined.
- AI explains how CSS classes apply

```

<head>
<style>
  nav ul {
    padding-right: 30px;
    gap: 2rem;
  }

  nav a {
    color: white;
    text-decoration: none;
  }

  /* Main content styles */
  main {
    padding: 2rem;
    min-height: calc(100vh - 200px);
  }

  /* Footer styles */
  footer {
    background-color: #2c3e50;
    color: white;
    text-align: center;
    padding: 1rem;
    position: relative;
    bottom: 0;
    width: 100%;
  }

  /* Responsive design */
  @media (max-width: 600px) {
    nav ul {
      flex-direction: column;
      align-items: center;
    }
  }
</style>
</head>

```

### Task Description #3 – JavaScript Interactivity

Task: Prompt AI to generate a JS script that validates a simple login form (non-empty username/password).

Expected Output:

Working on submit JS validation.

Clear error messages if inputs are empty.

```

<script>
document.addEventListener('DOMContentLoaded', function() {
  const main = document.querySelector('main');
  main.innerHTML = `
    <form id="loginForm" style="max-width: 800px; margin: 0 auto; padding: 20px; background-color: #f5f6fa; border-radius: 8px; box-shadow: 0 2px 4px rgba(0,0,0,0.1);">
      <div style="margin-bottom: 15px;">
        <label for="username" style="display: block; margin-bottom: 5px; font-weight: bold;">Username:</label>
        <input type="text" id="username" name="username" required minlength="3" placeholder="Enter your username"
          style="width: 100%; padding: 8px; border: 1px solid #ddd; border-radius: 4px;">
        <span id="userError" style="color: red; font-size: 12px; display: block; margin-top: 5px;"></span>
      </div>
      <div style="margin-bottom: 15px;">
        <label for="password" style="display: block; margin-bottom: 5px; font-weight: bold;">Password:</label>
        <input type="password" id="password" name="password"
          style="width: 100%; padding: 8px; border: 1px solid #ddd; border-radius: 4px;">
        <span id="passError" style="color: red; font-size: 12px; display: block; margin-top: 5px;"></span>
      </div>
      <button type="submit" style="width: 100%; padding: 10px; background-color: #2c3e50; color: white; border: none; border-radius: 4px; cursor: pointer; font-size: 16px;">Login</button>
    </form>
  `;

  const loginForm = document.getElementById('loginForm');
  const userError = document.getElementById('userError');
  const passError = document.getElementById('passError');

  loginForm.addEventListener('submit', function(e) {
    e.preventDefault();

    const username = document.getElementById('username').value.trim();
    const password = document.getElementById('password').value.trim();

    userError.textContent = '';
    passError.textContent = '';

    if (!username) {
      userError.textContent = 'Username is required';
    }

    if (!password) {
      passError.textContent = 'Password is required';
    }

    if (username && password) {
      alert('Login successful!');
    }
  });
});
</script>

```

full code :

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport"
content="width=device-width, initial-
scale=1.0">
<title>Student Portal</title>
<style>
/* Basic CSS for layout and responsiveness */
/* Reset default styles */
* {
margin: 0;
padding: 0;
box-sizing: border-box;
}

/* Improved Navigation */
nav {
position: sticky;
top: 0;
z-index: 100;
box-shadow: 0 2px 5px rgba(0,0,0,0.1);
}

nav ul li {
position: relative;
```

```
}
```

```
nav ul li a:hover {  
  color: #3498db;  
  transition: color 0.3s ease;  
}
```

```
/* Centered Content Section */  
main {  
  max-width: 1200px;  
  margin: 0 auto;  
  padding: 2rem;  
  display: flex;  
  flex-direction: column;  
  align-items: center;  
}
```

```
main h2 {  
  margin-bottom: 1rem;  
  color: #2c3e50;  
}
```

```
/* Enhanced Footer */  
footer {  
  background-color: #f5f6fa;  
  color: #2c3e50;  
  padding: 1.5rem;  
  margin-top: auto;  
  box-shadow: 0 -2px 5px rgba(0,0,0,0.1);  
}
```

```
/* Responsive Breakpoints */
@media (max-width: 768px) {
  nav ul {
    padding-right: 10px;
    gap: 1rem;
  }
}
```

```
main {
  padding: 1rem;
}
}
```

```
* {
  margin: 0;
  padding: 0;
  box-sizing: border-box;
}
```

```
body {
  font-family: Arial, sans-serif;
  line-height: 1.6;
}
```

```
/* Header styles */
header {
  background-color: #2c3e50;
  color: white;
  text-align: center;
  padding: 1rem;
}
```

```
/* Navigation styles */
nav {
background-color: #34495e;
padding: 1rem;
}
```

```
nav ul {
list-style: none;
display: flex;
justify-content: right;
padding-right: 30px;
gap: 2rem;
}
```

```
nav a {
color: white;
text-decoration: none;
}
```

```
/* Main content styles */
main {
padding: 2rem;
min-height: calc(100vh - 200px);
}
```

```
/* Footer styles */
footer {
background-color: #2c3e50;
color: white;
text-align: center;
padding: 1rem;
}
```

```
position: relative;
bottom: 0;
width: 100%;
}
```

```
/* Responsive design */
@media (max-width: 600px) {
  nav ul {
    flex-direction: column;
    align-items: center;
  }
}
</style>
</head>
<body>
<!-- Header section -->
<header>
<h1>Student Portal</h1>
</header>
```

```
<!-- Navigation menu -->
<nav>
<ul>
<li><a href="#home">Home</a></li>
<li><a href="#courses">Courses</a></li>
<li><a href="#grades">Grades</a></li>
<li><a href="#schedule">Schedule</a></li>
<li><a href="#profile">Profile</a></li>
</ul>
</nav>
```

```
<!-- Main content area -->
<main>
<h2>Welcome to Student Portal</h2>
<p>Access your academic information,
courses, and resources here.</p>
</main>
```

```
<!-- Footer section -->
<footer>
<p>&copy; 2024 Student Portal. All rights
reserved.</p>
</footer>
<script>
document.addEventListener('DOMContentLoaded', function() {
const main = document.querySelector('main');
main.innerHTML = `
<form id="loginForm" style="max-width: 400px;
margin: 0 auto; padding: 20px; background-
color: #f5f6fa; border-radius: 8px; box-
shadow: 0 2px 4px rgba(0,0,0,0.1);">
<div style="margin-bottom: 15px;">
<label for="username" style="display: block;
margin-bottom: 5px; font-weight:
bold;">Username:</label>
<input type="text" id="username"
name="username" required minlength="3"
placeholder="Enter your username"
```



```

style="width: 100%; padding: 8px; border:
1px solid #ddd; border-radius: 4px;">
<span id="userError" style="color: red;
font-size: 12px; display: block; margin-top:
5px;"></span>
</div>
<div style="margin-bottom: 15px;">
<label for="password" style="display: block;
margin-bottom: 5px; font-weight:
bold;">Password:</label>
<input type="password" id="password"
name="password"
placeholder="Enter your password"
style="width: 100%; padding: 8px; border:
1px solid #ddd; border-radius: 4px;">
<span id="passError" style="color: red;
font-size: 12px; display: block; margin-top:
5px;"></span>
</div>
<button type="submit" style="width: 100%;
padding: 10px; background-color: #2c3e50;
color: white; border: none; border-radius:
4px; cursor: pointer; font-size:
16px;">Login</button>
</form>
`;

```

```

const loginForm =
document.getElementById('loginForm');

```

```
const userError =  
document.getElementById('userError');  
const passError =  
document.getElementById('passError');
```

```
loginForm.addEventListener('submit',  
function(e) {  
e.preventDefault();  
const username =  
document.getElementById('username').value.trim();  
const password =  
document.getElementById('password').value.trim();  
userError.textContent = '';  
passError.textContent = '';
```

```
if (!username) {  
userError.textContent = 'Username is  
required';  
}  
if (!password) {  
passError.textContent = 'Password is  
required';  
}  
if (username && password) {  
alert('Login successful!');  
}  
});  
});
```

```
</script>
</body>
</html>
```

out put :

