ASSIGNMENT – 14.2

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BATCH NUMBER : 01

COURSE CODE : 24CS002PC215

PROGRAM NAME : B.TECH

YEAR/SEM : 2ND AND 3RD

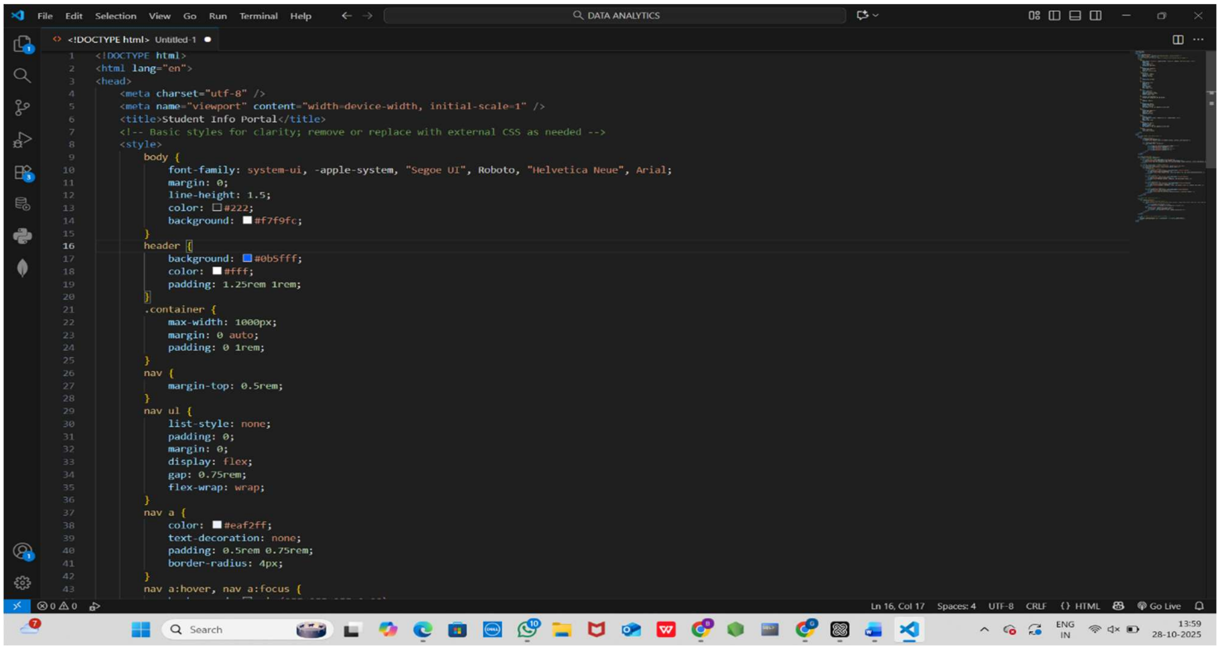
TASK 1 :

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

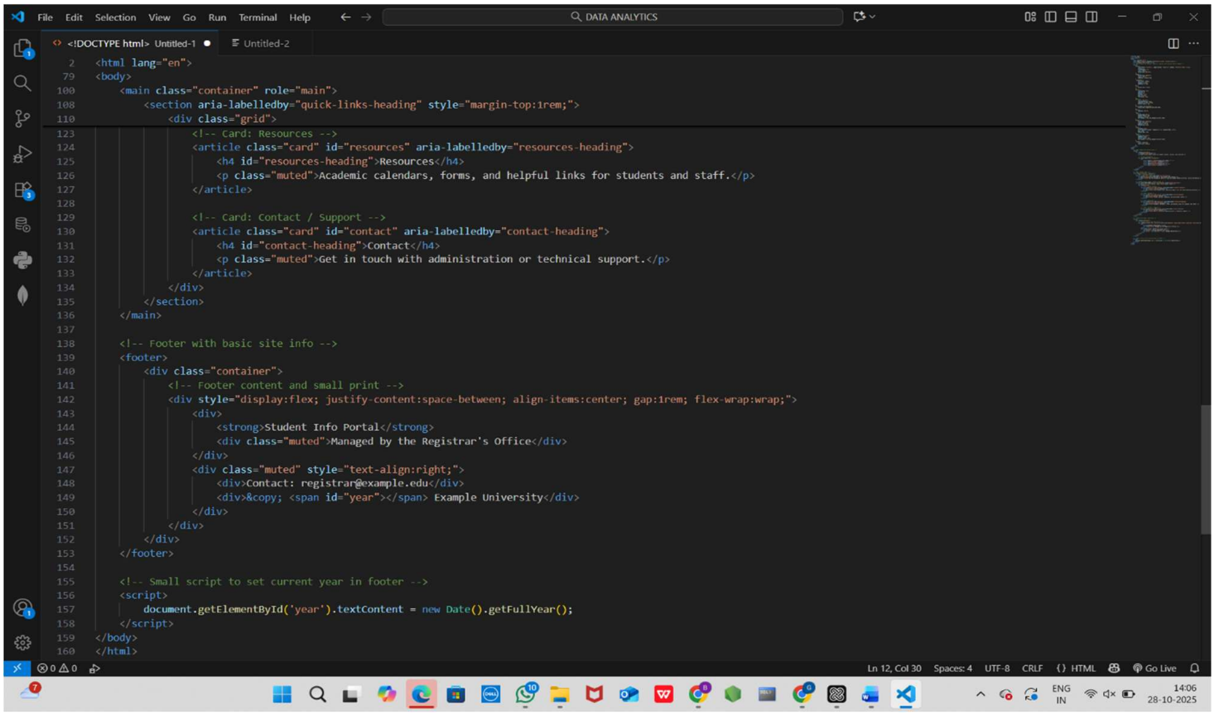
PROMPT:

Generate a simple HTML homepage for a "Student Info Portal" that includes a <header>, <nav>, and <footer>. Ensure the code *has clean indentation, proper tags, and includes comments for clarity.*

CODE :



```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1" />
    <title>Student Info Portal</title>
    <!-- Basic styles for clarity; remove or replace with external CSS as needed -->
    <style>
        body {
            font-family: system-ui, -apple-system, "Segoe UI", Roboto, "Helvetica Neue", Arial;
            margin: 0;
            line-height: 1.5;
            color: #222;
            background: #f7f9fc;
        }
        header {
            background: #0b5fff;
            color: #fff;
            padding: 1.25rem 1rem;
        }
        .container {
            max-width: 1000px;
            margin: 0 auto;
            padding: 0 1rem;
        }
        nav {
            margin-top: 0.5rem;
        }
        nav ul {
            list-style: none;
            padding: 0;
            margin: 0;
            display: flex;
            gap: 0.75rem;
            flex-wrap: wrap;
        }
        nav a {
            color: #eaf2ff;
            text-decoration: none;
            padding: 0.5rem 0.75rem;
            border-radius: 4px;
        }
        nav a:hover, nav a:focus {
```



```html
<html lang="en">
<body>
    <main class="container" role="main">
        <section aria-labelledby="quick-links-heading" style="margin-top:1rem;">
            <div class="grid">
                <!-- Card: Resources -->
                <article class="card" id="resources" aria-labelledby="resources-heading">
                    <h4 id="resources-heading">Resources</h4>
                    <p class="muted">Academic calendars, forms, and helpful links for students and staff.</p>
                </article>

                <!-- Card: Contact / Support -->
                <article class="card" id="contact" aria-labelledby="contact-heading">
                    <h4 id="contact-heading">Contact</h4>
                    <p class="muted">Get in touch with administration or technical support.</p>
                </article>
            </div>
        </section>
    </main>

    <!-- Footer with basic site info -->
    <footer>
        <div class="container">
            <!-- Footer content and small print -->
            <div style="display:flex; justify-content:space-between; align-items:center; gap:1rem; flex-wrap:wrap;">
                <div>
                    <strong>Student Info Portal</strong>
                    <div class="muted">Managed by the Registrar's Office</div>
                </div>
                <div class="muted" style="text-align:right;">
                    <div>Contact: registrar@example.edu</div>
                    <div>&copy; <span id="year"></span> Example University</div>
                </div>
            </div>
        </div>
    </footer>

    <!-- Small script to set current year in footer -->
    <script>
        document.getElementById('year').textContent = new Date().getFullYear();
    </script>
</body>
</html>
```

OUTPUT:

•HTML code with <header>, <nav>, <footer>.

*• Clean indentation, proper tags, and comments***.**

TASK 2:

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

• Responsive navigation bar.

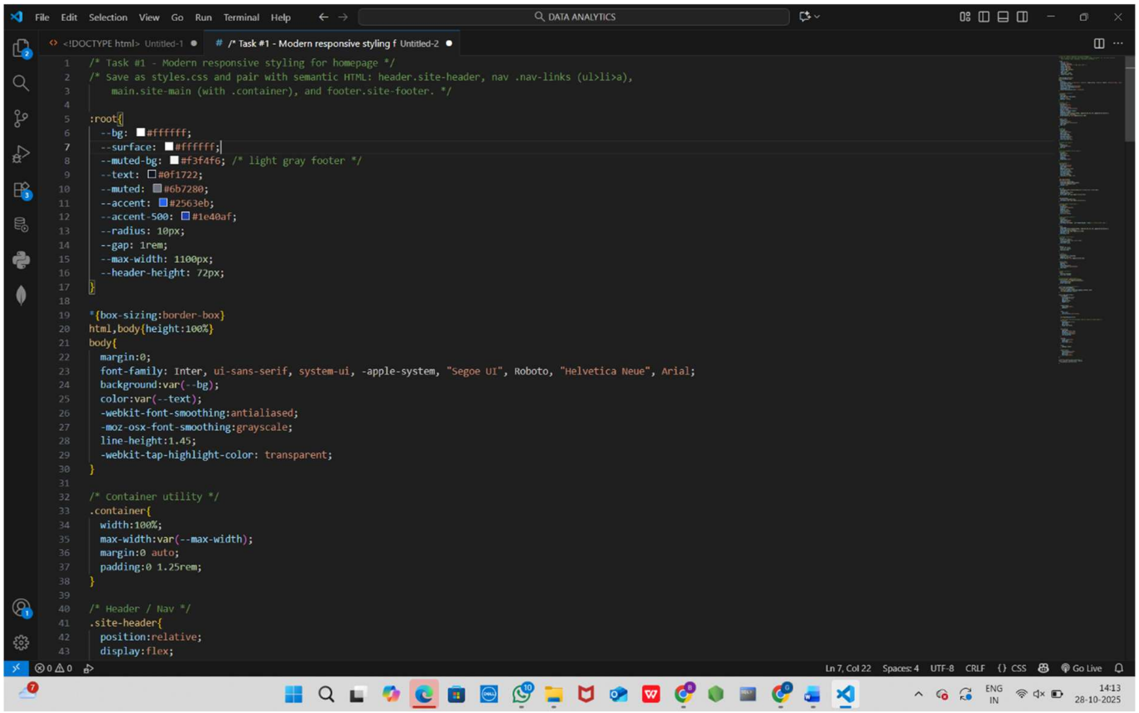
• Centered content section.

• Footer with light gray background

PROMPT:

"Add modern CSS styling to Task #1 homepage with a responsive navigation bar (flex or grid), a centered main content section, and a footer with a light gray background. Make sure it's mobile-friendly and visually clean."

CODE:


File Edit Selection View Go Run Terminal Help
DATA ANALYTICS
<!DOCTYPE html> Untitled-1
/* Task #1 - Modern responsive styling f Untitled-2
Ln 7, Col 22 Spaces: 4 UTF-8 CRLF {} CSS Go Live
14:13
28-10-2025

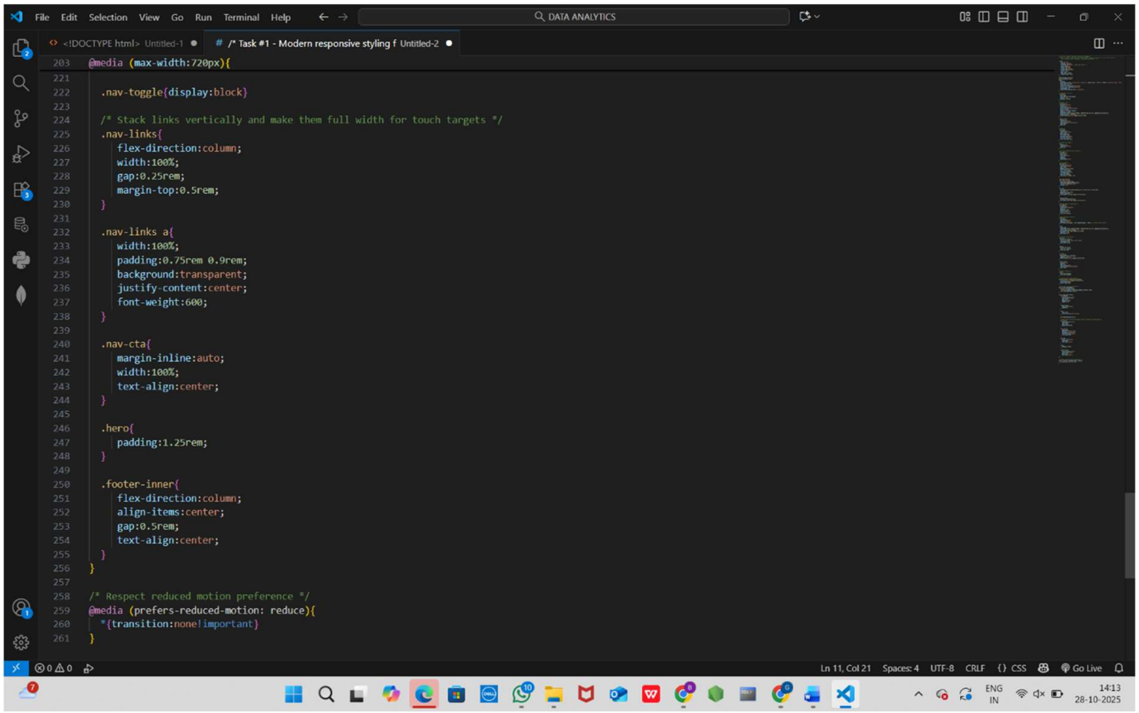
```css
/* Task #1 - Modern responsive styling for homepage */
/* Save as styles.css and pair with semantic HTML: header.site-header, nav .nav-links (ul>li>a),
   main.site-main (with .container), and footer.site-footer. */

:root{
  --bg: #ffffff;
  --surface: #ffffff;
  --muted-bg: #f3f4f6; /* light gray footer */
  --text: #0f1722;
  --muted: #6b7280;
  --accent: #2563eb;
  --accent-500: #1e40af;
  --radius: 10px;
  --gap: 1rem;
  --max-width: 1100px;
  --header-height: 72px;
}

*{box-sizing:border-box}
html,body{height:100%}
body{
  margin:0;
  font-family: Inter, ui-sans-serif, system-ui, -apple-system, "Segoe UI", Roboto, "Helvetica Neue", Arial;
  background:var(--bg);
  color:var(--text);
  -webkit-font-smoothing:antialiased;
  -moz-osx-font-smoothing:grayscale;
  line-height:1.45;
  -webkit-tap-highlight-color: transparent;
}

/* Container utility */
.container{
  width:100%;
  max-width:var(--max-width);
  margin:0 auto;
  padding:0 1.25rem;
}

/* Header / Nav */
.site-header{
  position:relative;
  display:flex;
```


File Edit Selection View Go Run Terminal Help
DATA ANALYTICS
<!DOCTYPE html> Untitled-1
/* Task #1 - Modern responsive styling f Untitled-2
Ln 11, Col 21 Spaces: 4 UTF-8 CRLF {} CSS Go Live
14:13
28-10-2025

```css
@media (max-width:720px){

  .nav-toggle{display:block}

  /* Stack links vertically and make them full width for touch targets */
  .nav-links{
    flex-direction:column;
    width:100%;
    gap:0.25rem;
    margin-top:0.5rem;
  }

  .nav-links a{
    width:100%;
    padding:0.75rem 0.9rem;
    background:transparent;
    justify-content:center;
    font-weight:600;
  }

  .nav-cta{
    margin-inline:auto;
    width:100%;
    text-align:center;
  }

  .hero{
    padding:1.25rem;
  }

  .footer-inner{
    flex-direction:column;
    align-items:center;
    gap:0.5rem;
    text-align:center;
  }
}

/* Respect reduced motion preference */
@media (prefers-reduced-motion: reduce){
  *{transition:none!important}
}
```

OUTPUT:

- *HTML + CSS combined.*
- *AI explains how CSS classes apply.*
- *AI refactors with with open() and try-except.*

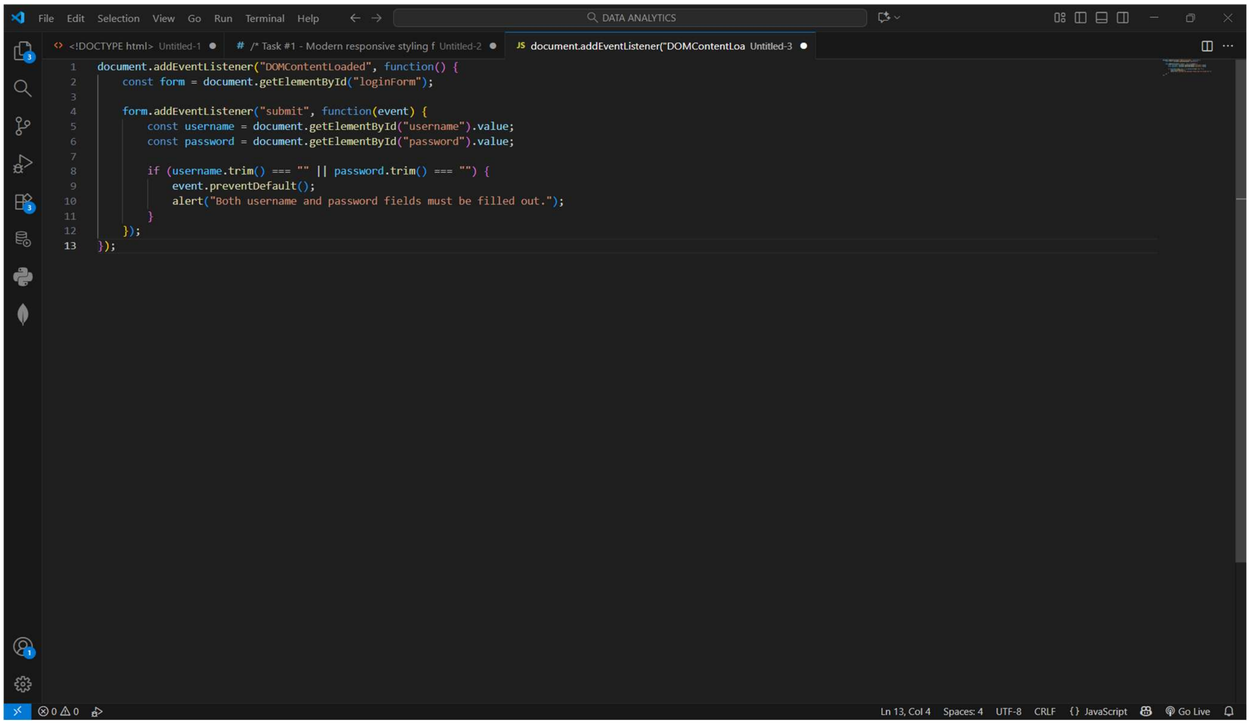
TASK 3:

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

PROMPT:

“Generate a JavaScript script that validates a simple login form, ensuring the username and password fields are not empty before submission.”

CODE:



File Edit Selection View Go Run Terminal Help
DATA ANALYTICS
<!DOCTYPE html> Untitled-1
/* Task #1 - Modern responsive styling f Untitled-2
document.addEventListener("DOMContentLoa Untitled-3
Ln 13, Col 4 Spaces: 4 UTF-8 CRLF { } JavaScript Go Live

```javascript
document.addEventListener("DOMContentLoaded", function() {
    const form = document.getElementById("loginForm");

    form.addEventListener("submit", function(event) {
        const username = document.getElementById("username").value;
        const password = document.getElementById("password").value;

        if (username.trim() === "" || password.trim() === "") {
            event.preventDefault();
            alert("Both username and password fields must be filled out.");
        }
    });
});
```

OUTPUT:

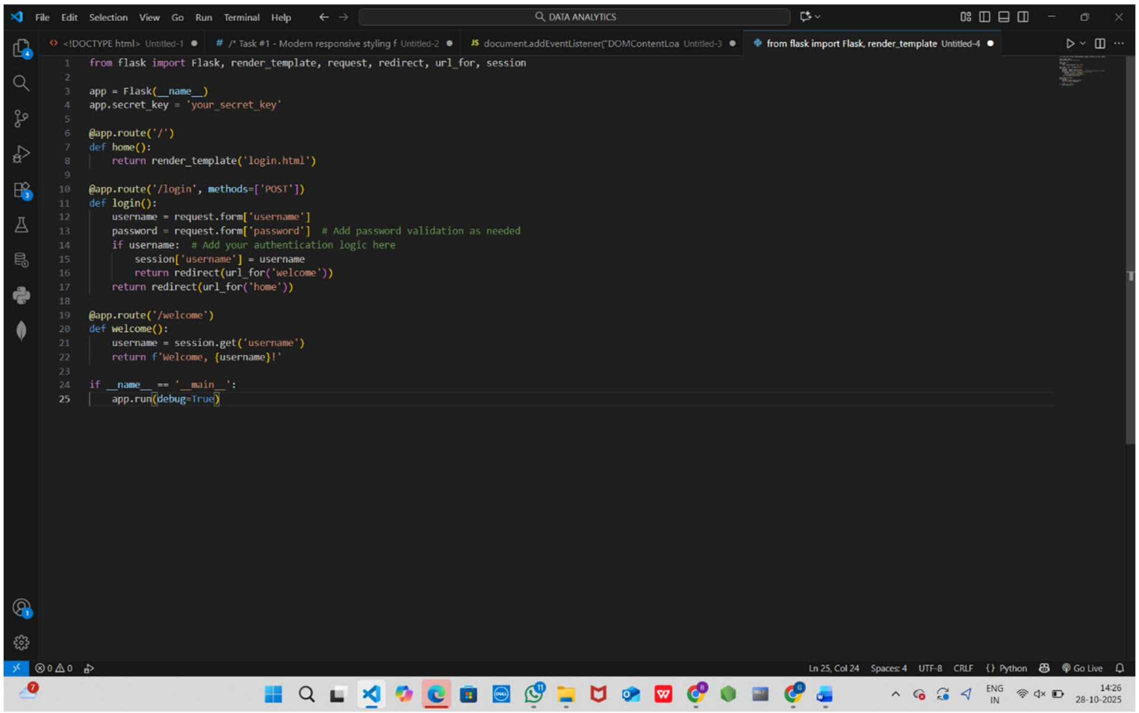
**Working on submit JS validation.*

**Clear error messages if inputs are empty.*

TASK 4: *Ask AI to generate a Flask app that serves the HTML form (Task
#3) and prints the username on successful login.*

PROMPT: *"Generate a Flask app that serves the login HTML form from Task #3 and displays the username on a successful login."*

CODE:



```python
from flask import Flask, render_template, request, redirect, url_for, session

app = Flask(__name__)
app.secret_key = 'your_secret_key'

@app.route('/')
def home():
    return render_template('login.html')

@app.route('/login', methods=['POST'])
def login():
    username = request.form['username']
    password = request.form['password']  # Add password validation as needed
    if username:  # Add your authentication logic here
        session['username'] = username
        return redirect(url_for('welcome'))
    return redirect(url_for('home'))

@app.route('/welcome')
def welcome():
    username = session.get('username')
    return f'Welcome, {username}!'

if __name__ == '__main__':
    app.run(debug=True)
```

OUTPUT:

**Working on submit JS validation.*

**Clear error messages if inputs are empty*