Task 4

Technical Document

1. **Testing Processes and Results**

Tested Action	GitHub Commit ID	Expected Output	Actual Output	Pass/Fail	Notes
User Registration/Login	67d1b83	Users can register/login or get error on invalid input	Form loads, input validation works; no backend yet	Partial	Backend logic needs implemented
Homepage Navigation	0493985	Navigation links route to correct pages	All links worked	Pass	
Subject Page Navigation	bf45a42	Clicking subject box leads to material page	Maths subject page loads; others are placeholders	Pass	Expand content for all subjects
View Study Materials (Notes/Video/Guide)	34f4b49	Visual content loads with correct layout	Notes, video, and guide cards show images	Pass	Add links or modal previews later
Take a Quiz	50e08a2	Quiz loads, answers selectable, result displayed	Static quiz with score display	Partial	Needs JS logic for dynamic scoring
Timed/Quiz Option	50e08a2	Timer visible, quiz ends on time or when submitted	Timer layout exists; no timer logic yet	Fail	Add JavaScript countdown timer
Dashboard Progress Tracker	89e58ce	Tracker table allows date input,	Fully functional visually; no data	Pass	Suggest saving to localStorage
Study Group Join & Chat	f03740b	Join button links to chat; chat messages visible	Pages work; chat is static only	Partial	Add real-time chat with JS or Firebase
Chatbot Support	-	Query input gives relevant help	Not yet implemented	Fail	Feature for next phase

Contact Form Submission	2886904	Confirmation message and submission	Form shows validation, no data submission yet	Partial	Needs backend
Images and Assets	bfb896d	All subject, icon, and avatar images load	All assets now integrated	Pass	

2. Code Validation Process

CSS Validation

- Tool Used: W3C CSS Validator

- Process: Uploaded style.css for full validation.
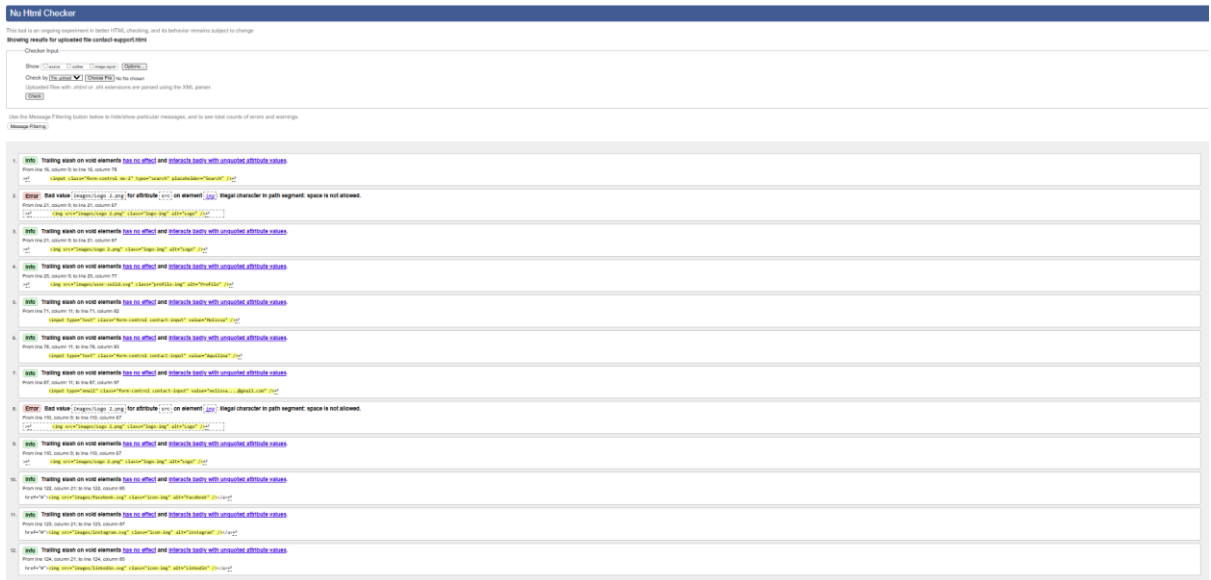
- Result:

Figure 2: CSS validation showing no errors or warnings.

- Summary:
  The CSS code is fully standards-compliant and requires no fixes. It meets best practices for modern, responsive design.

HTML Validation

contact-support.html
- Tool Used: Nu HTML Checker (W3C)
- Process: Uploaded contact-support.html for full validation.
- Result:
  - Validation showing one error (space in file path) and trailing slash warnings.
- Summary:
  Issues included a bad file path (Logo 2.png) and unnecessary trailing slashes (<img />). Fixed by renaming to Logo_2.png and updating HTML to standard <img> syntax.

index.html

- Tool Used: Nu HTML Checker (W3C)
- Process: Uploaded index.html for full validation.
- Result:
    - Validation showing multiple errors with spaces in file paths (e.g., friends-studying-near-building-with-lake 1.png) and trailing slash warnings.
- Summary:
  Corrected all file paths to remove spaces, replaced with underscores (e.g., friends-studying-near-building-with-lake_1.png) and cleaned up all <img> tags to remove trailing slashes.
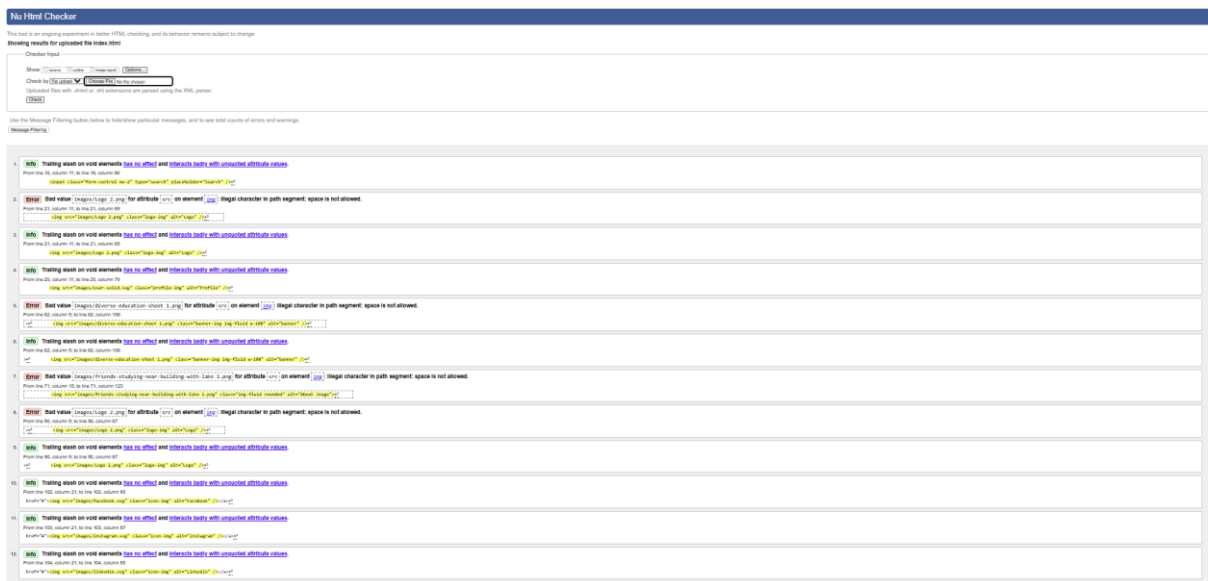
login&signup.html

- Tool Used: Nu HTML Checker (W3C)
- Process: Uploaded login&signup.html for complete validation.
- Result:
    - Validation showing errors (bad file paths and missing alt attributes) and trailing slash warnings.
- Summary:
  The validation showed errors with image file paths containing spaces (apple

icon.png, Logo 2.png) and missing alt attributes in some <img> tags. Trailing slashes in <img> tags were also flagged. I fixed these by:

- o Renaming files to remove spaces (e.g., apple_icon.png).
- o Adding meaningful alt texts for accessibility.
- o Updating the HTML to standard <img> syntax without trailing slashes.

profile.html

- Tool Used: Nu HTML Checker (W3C)
- Process: Uploaded profile.html for complete validation.
- Result:
  - o Validation showing errors (file path spaces) and trailing slash warnings.
- Summary:
  The validation highlighted errors due to spaces in file paths (Logo 2.png) and trailing slashes in void elements. I corrected this by renaming files to remove spaces (e.g., Logo_2.png), adjusting file paths in HTML, and removing trailing slashes from <img> tags.

Progress-Tracker.html

- Tool Used: Nu HTML Checker (W3C)
- Process: Uploaded Progress-Tracker.html for complete validation.
- Result:
  - Validation highlighting file path errors and trailing slash warnings.
- Summary:
  The validation revealed errors related to file paths containing spaces (Logo 2.png) and unnecessary trailing slashes in <img> tags. These were corrected by renaming image files to remove spaces (e.g., Logo_2.png) and using standard HTML5 syntax for <img> tags.

quizzes&test.html

- Tool Used: Nu HTML Checker (W3C)
- Process: Uploaded quizzes&test.html for complete validation.
- Result:
    - Validation showing file path errors and trailing slash warnings.
- Summary:
  The validator flagged errors due to file paths containing spaces (Logo 2.png) and trailing slashes in <img> tags. These issues were resolved by renaming files to remove spaces (e.g., Logo_2.png), fixing HTML file references, and updating tags to ML5-compliant syntax without trailing slashes.

quizzes&testquestion.html

- Tool Used: Nu HTML Checker (W3C)
- Process: Uploaded quizzes&testquestion.html for complete validation.
- Result:
    - Validation showing file path errors and trailing slash warnings.
- Summary:
  The validator flagged errors due to file paths with spaces (e.g., Logo 2.png) and trailing slashes in void elements like <img />. These were fixed by renaming images to use underscores (e.g., Logo_2.png), updating HTML references, and removing unnecessary trailing slashes to meet HTML5 standards.

student-dashboard.html

- Tool Used: Nu HTML Checker (W3C)
- Process: Uploaded student-dashboard.html for complete validation.
- Result:
  - Validation showing file path errors, trailing slash warnings, and unclosed tags.
- Summary:
  The validator flagged multiple errors, including:
  - File path issues due to spaces (e.g., Logo 2.png).
  - Trailing slashes in void elements like <img />.
  - Unclosed tags (<div>) that could impact layout and functionality.
    These were fixed by renaming files to remove spaces (e.g., Logo_2.png), updating <img> tags to HTML5 syntax without trailing slashes, and ensuring all tags were closed correctly.
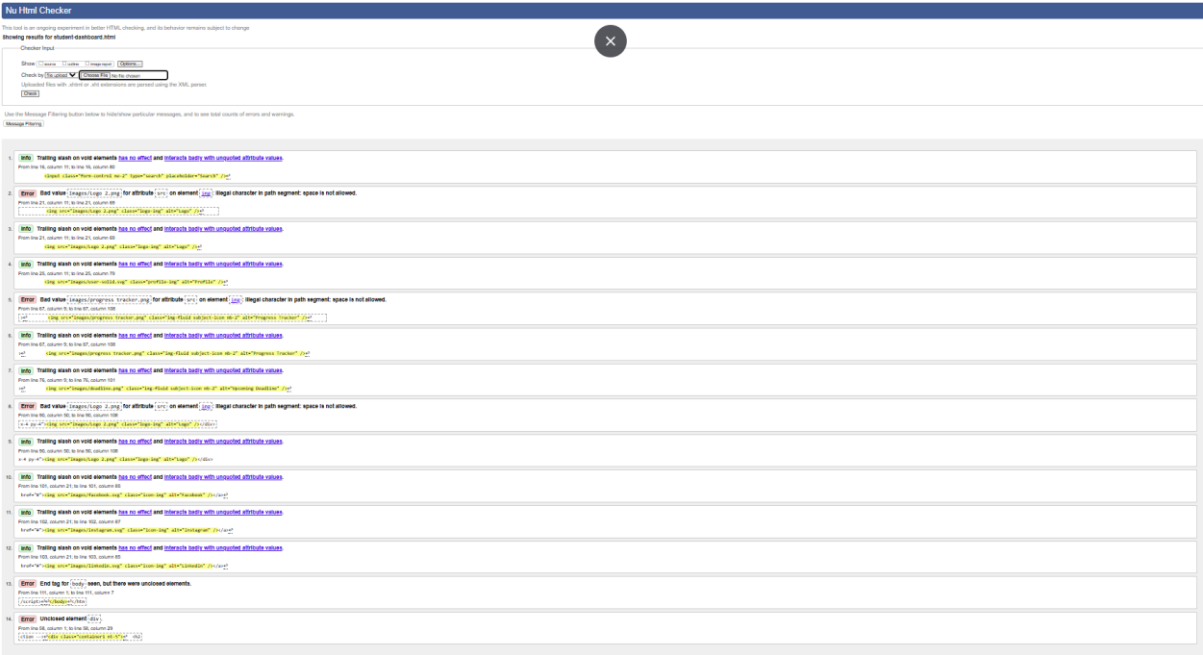
study-group.html

- Tool Used: Nu HTML Checker (W3C)
- Process: Uploaded study-group.html for complete validation.
- Result:
  - Validation showing file path errors and trailing slash warnings.
- Summary:
  The validator identified issues such as file paths containing spaces (Logo 2.png) and trailing slashes in void elements (<img />). These were resolved by renaming files to remove spaces (e.g., Logo_2.png), updating file references in HTML, and ensuring <img> tags followed HTML5-compliant syntax without trailing slashes.

study-group-chat.html

- Tool Used: Nu HTML Checker (W3C)
- Process: Uploaded study-group-chat.html for full validation.
- Result:
  - Validation showing multiple file path errors and trailing slash warnings.
- Summary:
  The validation revealed multiple file path errors due to spaces in filenames (e.g., people-collage-design 2.png) and trailing slashes in void elements. These were resolved by renaming files to use underscores (e.g., people_collage_design_2.png), updating HTML references accordingly, and removing trailing slashes in <img> tags to comply with HTML5 standards.

subject.html

- Tool Used: Nu HTML Checker (W3C)
- Process: Uploaded subject.html for complete validation.
- Result:
  - Validation showing file path errors and trailing slash warnings.
- Summary:
  The validation identified errors in file paths containing spaces (e.g., Logo 2.png) and unnecessary trailing slashes in <img> tags. These issues were resolved by renaming files to use underscores (e.g., Logo_2.png), updating HTML references, and using standard HTML5 syntax for <img> tags. The final result ensured standards compliance and improved accessibility and browser compatibility.

subject.Maths.html

- Tool Used: Nu HTML Checker (W3C)
- Process: Uploaded subject.Maths.html for complete validation.
- Result:
  - Validation showing file path errors and trailing slash warnings.
- Summary:
  The validator flagged errors related to file paths containing spaces (Logo 2.png) and unnecessary trailing slashes in <img /> tags. These issues were resolved by renaming images to use underscores (e.g., Logo_2.png), updating the HTML file references, and ensuring proper HTML5 syntax.
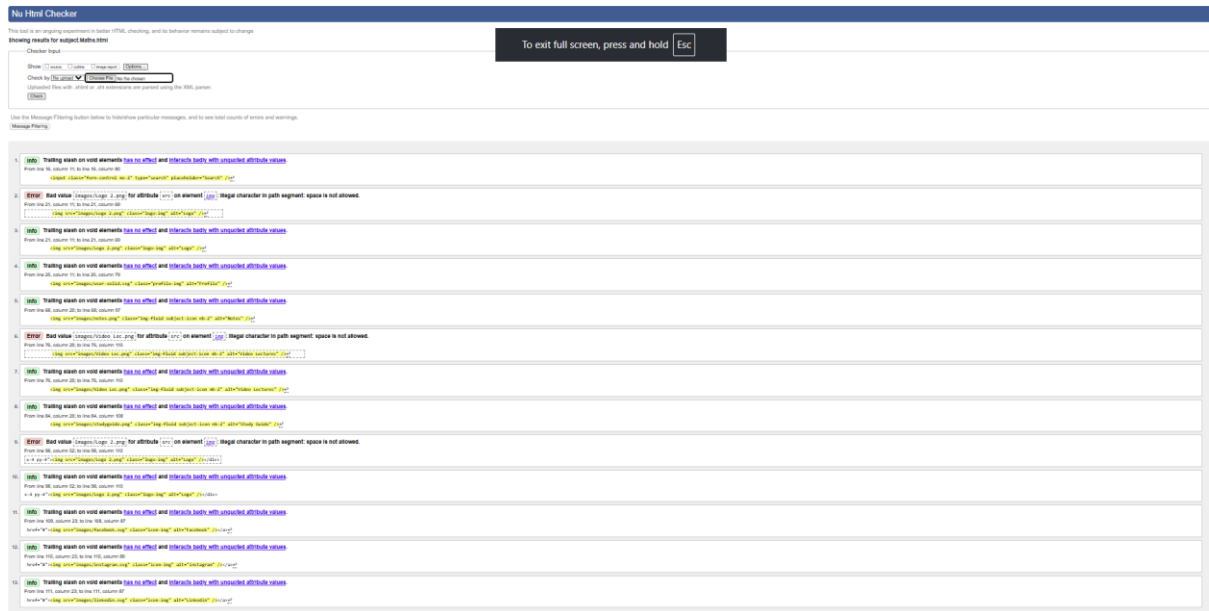
upcoming-deadline.html

- Tool Used: Nu HTML Checker (W3C)
- Process: Uploaded upcoming-deadline.html for complete validation.
- Result:
  - Validation showing file path errors and trailing slash warnings.
- Summary:
  The validation revealed errors due to file paths with spaces (e.g., Logo 2.png) and unnecessary trailing slashes in void elements (<img />). These were fixed by renaming files to use underscores (e.g., Logo_2.png), updating the HTML references, and using HTML5-compliant <img> syntax without trailing slashes.
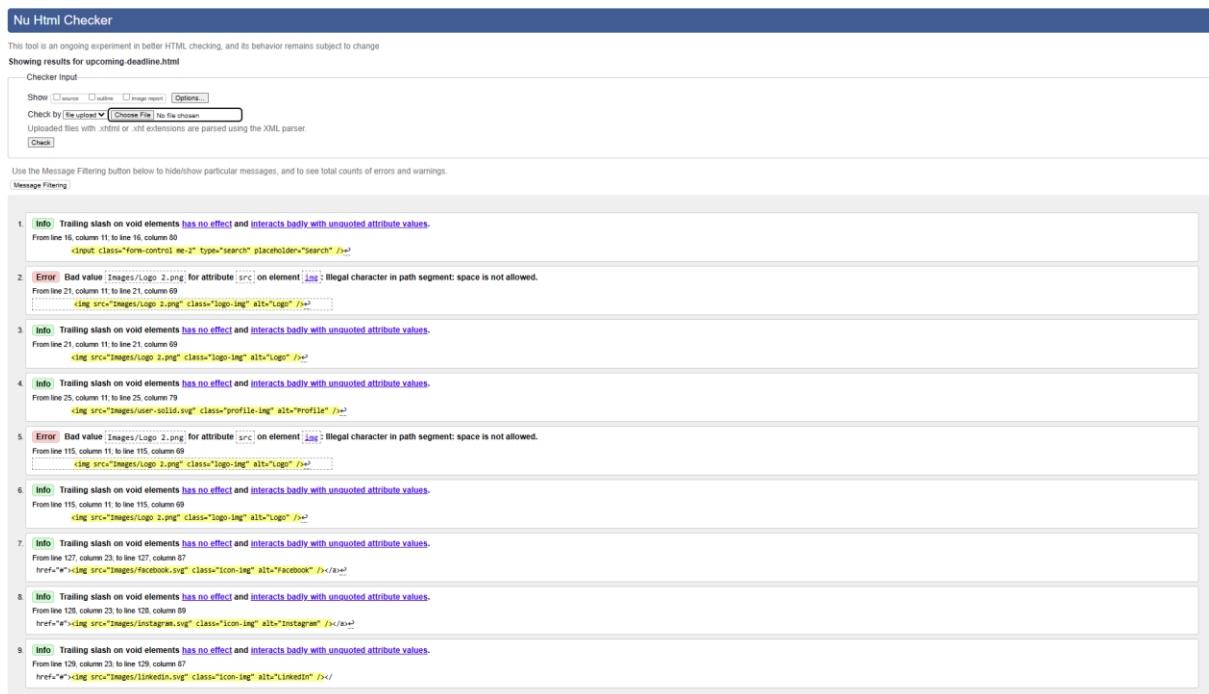
3. Current Issues & Recommendations

Issue	Description	Suggested Fix
No dynamic quiz scoring	Quizzes are static, with no user feedback	Add JavaScript to capture selections and calculate scores
Contact form not functional	Form doesn't submit data anywhere	Use JavaScript for email or backend integration
The chat feature is static.	Messages are prewritten	Use Firebase for live chat
No login and sign-up backend	Form is frontend only	Use Firebase with the database

4. Future Improvements

Feature	Description
Dark Mode	Toggle for light/dark interface
Accessibility Tools	Font size control, high contrast, and screen reader support
Push Notifications	Reminders for quizzes and deadlines
User Achievements	Earn badges for activities.
Progress Analytics	Show quiz scores and study hours in charts
AI Chatbot	Answer questions about studying or the website.