UGANDA TECHNOLOGY AND MANAGEMENT UNIVERSITY

WEEKLY JOURNAL REPORT

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SEP23/BSC/3567U/F

BACHELOR OF SCIENCE COMPUTER SCIENCE

WEEK 3: 13th/JUNE/2025 – 19th /June/2025

1. What have been your successes/accomplishments?

- Successfully completed a JavaScript-enhanced interactive portfolio project.
- Built a clean HTML layout, applied CSS styling, and wrote JavaScript code to add interactivity.
- Implemented JavaScript DOM manipulation to dynamically populate a skills list.
- Used JavaScript to toggle a dark/light theme.
- Practiced separating HTML, CSS, and JavaScript into structured files.

2. What have been the challenges/fears?

- Initial difficulty understanding how to interact with the DOM using JavaScript.
- Debugging form behavior, especially with radio buttons and text areas.
- Adjusting from designing static pages to implementing dynamic functionality.
- Uncertainty about how deep JavaScript is required for future internship phases.

3. What is the relationship between your internship and your previous job training?

- The internship expands on the foundational knowledge gained in school.
- Prior training provided basic theory; the internship adds real-world practice and project experience.
- Got introduced to version control using GitHub, which complements prior academic skills.

4. What is the difference between what you observed in the field and what you learned in class?

- Classroom learning focused on theory, while the internship emphasizes practical application.
- In the field, real-time debugging, browser developer tools, and client-like expectations are common which is not the case in classroom learning.
- Internship projects are more open-ended, requiring critical thinking and real problem-solving compared to the ones of classroom.

- Field work shows how HTML, CSS, and JavaScript integrate to build usable interfaces and such was not covered in classroom.

5. What experience have you gained so far from being part of the organization/community?

- Learned to manage weekly tasks and meet deadlines.
- Gained confidence in building projects from scratch.
- Improved problem-solving skills when encountering coding errors.
- Experienced version control and GitHub uploads for professional tracking.
- Understood the importance of UI/UX (user interface and user experience) in frontend development.

6. List activities done for the week:

- Day 1: Introduction to JavaScript syntax, variables, and data types.
- Day 2: **Functions and operators**.
- Day 3: **Conditionals and control flow**.
- Day 4: **Loops and Arrays**.
- Day 5: **DOM manipulation basics**.
- Day 6: **DOM events and final mini project**.

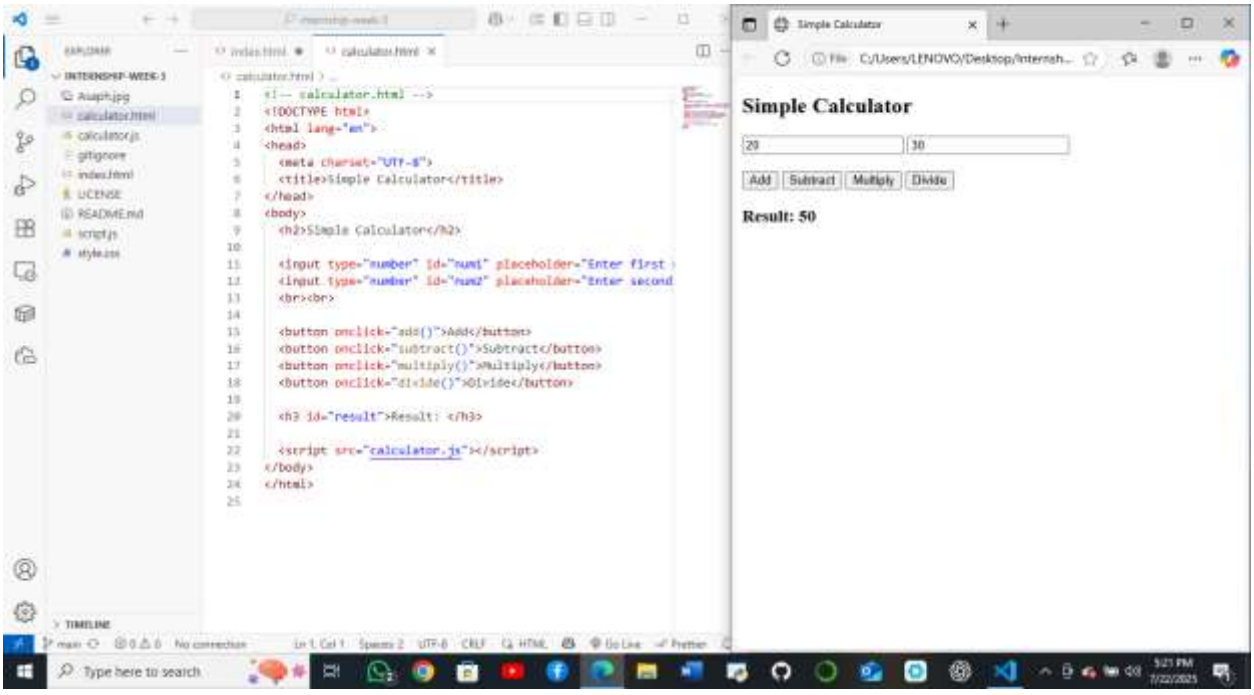


Figure 1 screenshot of the created simple calculator functions sub project

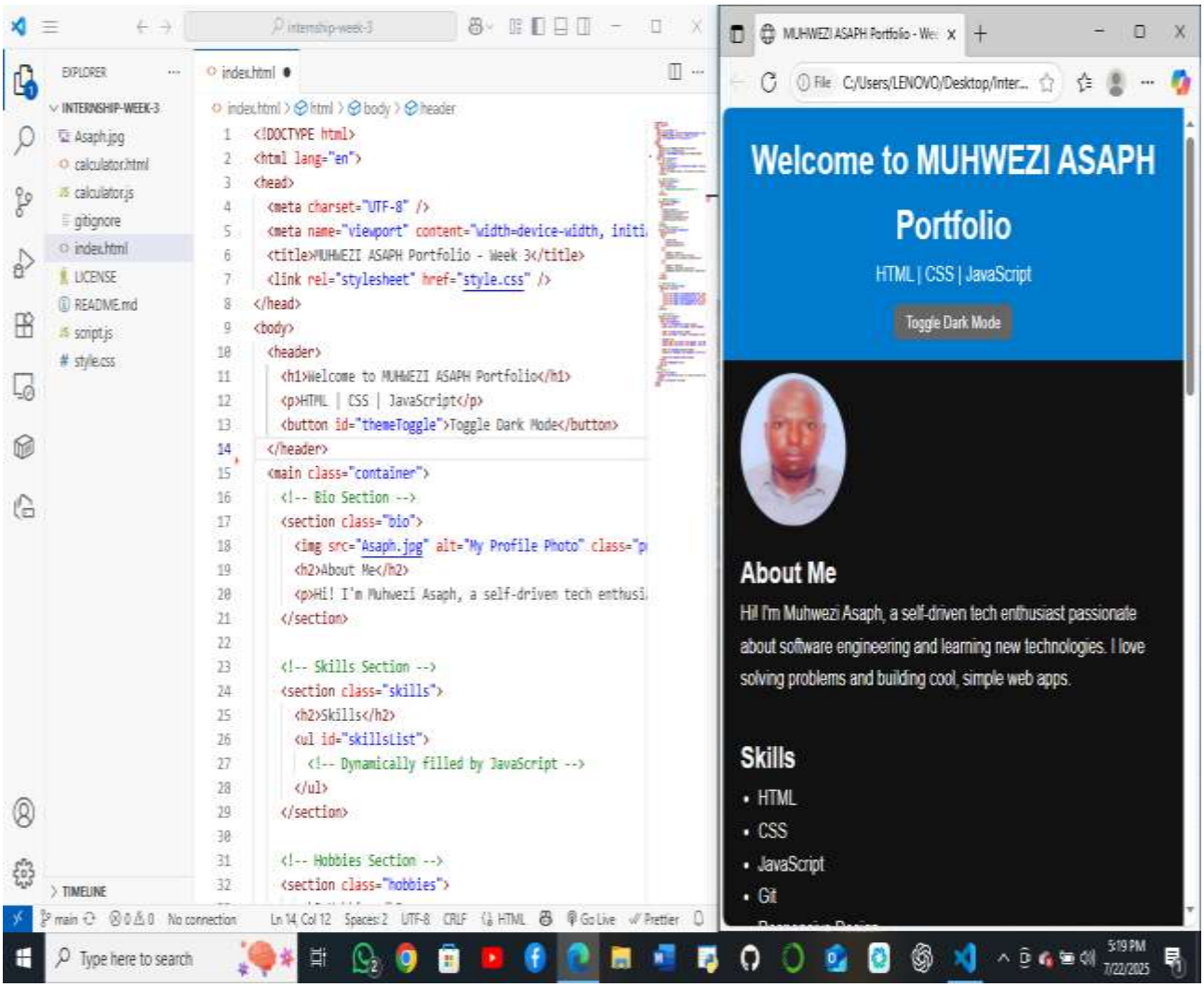
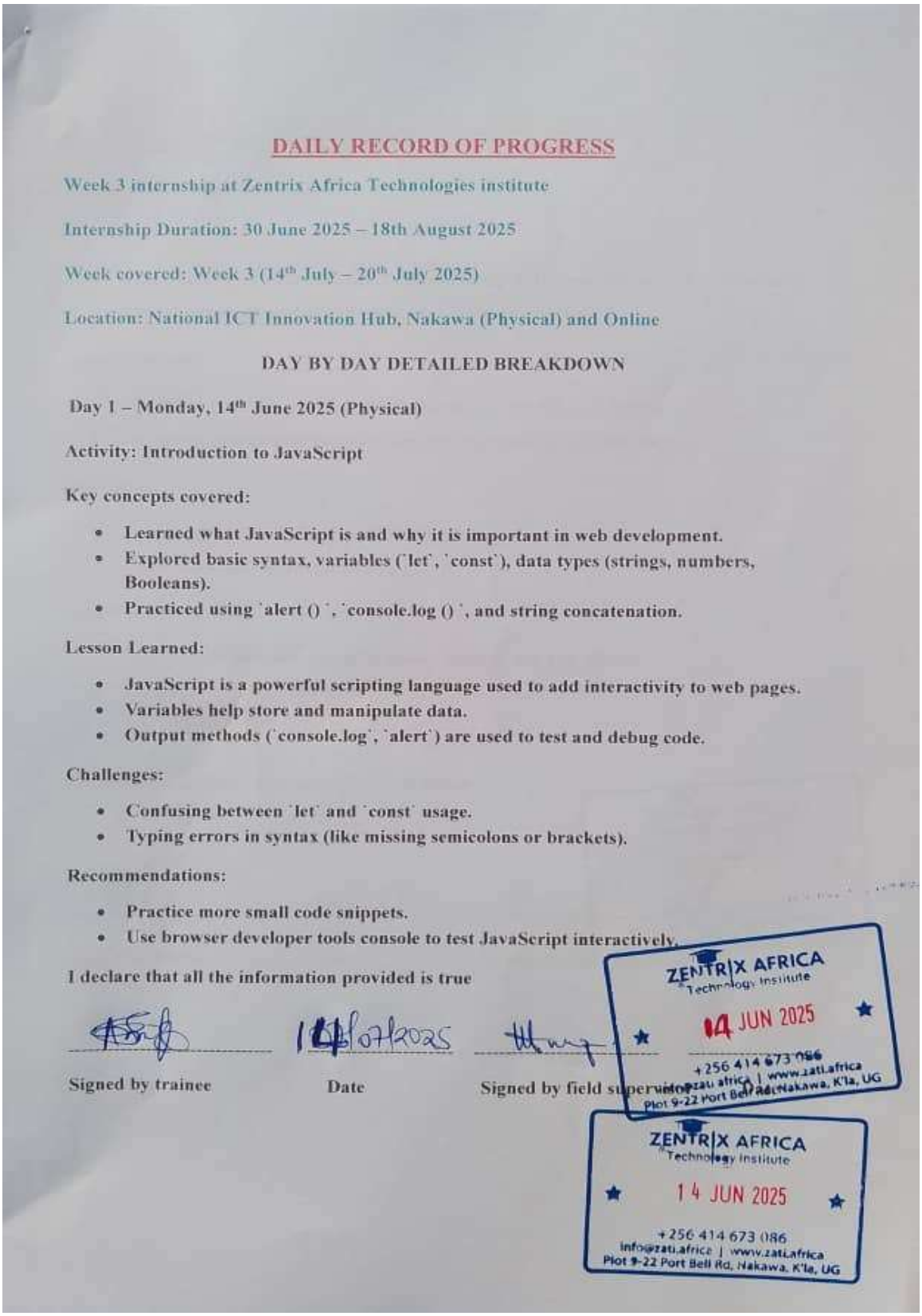


Figure 2 screenshot of the mini project of the incorporated JavaScript in the personal profile webpage



DAILY RECORD OF PROGRESS

Week 3 internship at Zentrix Africa Technologies institute

Internship Duration: 30 June 2025 – 18th August 2025

Week covered: Week 3 (14th July – 20th July 2025)

Location: National ICT Innovation Hub, Nakawa (Physical) and Online

DAY BY DAY DETAILED BREAKDOWN

Day 1 – Monday, 14th June 2025 (Physical)

Activity: Introduction to JavaScript

Key concepts covered:

- Learned what JavaScript is and why it is important in web development.
- Explored basic syntax, variables (`let`, `const`), data types (strings, numbers, Booleans).
- Practiced using `alert()`, `console.log()`, and string concatenation.

Lesson Learned:

- JavaScript is a powerful scripting language used to add interactivity to web pages.
- Variables help store and manipulate data.
- Output methods (`console.log`, `alert`) are used to test and debug code.

Challenges:

- Confusing between `let` and `const` usage.
- Typing errors in syntax (like missing semicolons or brackets).

Recommendations:

- Practice more small code snippets.
- Use browser developer tools console to test JavaScript interactively.

I declare that all the information provided is true

14/07/2025

Signed by trainee Date Signed by field supervisor

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Figure 3 shows screenshot of record of progress day 1

Day 2 Tuesday, 15th July 2025 (online)

Activity: Functions and Operators

Key concepts covered:

- Learned how to define and call functions.
- Explored arithmetic, comparison, and logical operators.
- Created basic calculator functions using user inputs.

Lesson Learned:

- Functions allow code reuse and organization.
- Operators are used for calculations and decision-making.

Challenges:

- Understanding return values vs. direct outputs.
- Forgetting to use ` () ` when calling functions.

Recommendations:

- Reinforce function syntax and behavior through practice.
- Try building mini function-based tools (e.g., calculator, greeting app).

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15/07/2025

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Figure 4 shows screenshot of record of progress day 2

Day 3 Wednesday, 16th July 2025 (physical)

Activity: Conditionals and control flow

Key concepts covered:

- Used `if`, `else if`, and `else` to make decisions in code.
- Explored `switch` statements.
- Built login form simulation with conditionals.

Lesson Learned:

- Control flow structures guide how code executes based on conditions.
- Logical thinking is key to structuring conditions properly.

Challenges:

- Nesting conditionals became confusing.
- Struggled with `==` vs `===` comparisons.

Recommendations:

- Use flowcharts to visualize conditional logic.
- Prefer `===` for strict comparison.

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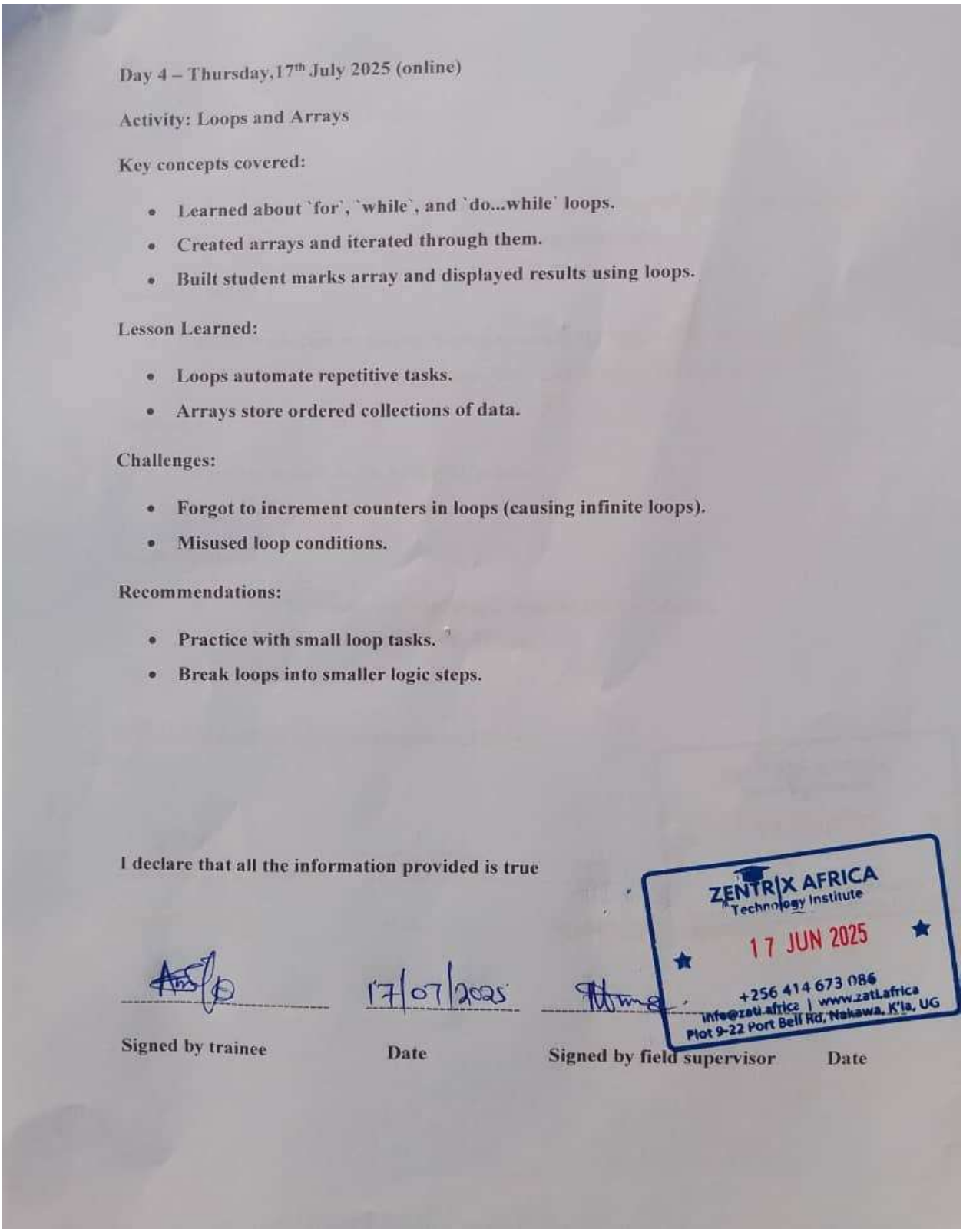
Figure 5 shows screenshot of record of progress day 3



Day 4 – Thursday,17th July 2025 (online)

Activity: Loops and Arrays

Key concepts covered:

- Learned about `for`, `while`, and `do...while` loops.
- Created arrays and iterated through them.
- Built student marks array and displayed results using loops.

Lesson Learned:

- Loops automate repetitive tasks.
- Arrays store ordered collections of data.

Challenges:

- Forgot to increment counters in loops (causing infinite loops).
- Misused loop conditions.

Recommendations:

- Practice with small loop tasks.
- Break loops into smaller logic steps.

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17/07/2025

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Figure 6 shows screenshot of record of progress day 4

Day 5 – Friday, 18th/July 2025 (physical)

Activity: DOM manipulation basics

Key concepts covered:

- Explored how to access HTML elements using `getElementById`, `querySelector`.
- Changed content, styles, and attributes using JavaScript.

Lesson Learned:

- The DOM (Document Object Model) connects HTML and JavaScript.
- JavaScript can change how the page looks and behaves in real time.

Challenges:

- Forgetting to link JS file to HTML properly.
- Using incorrect element selectors.

Recommendations:

- Use browser Developer tools to inspect element IDs and classes.
- Ensure script tags are loaded after HTML.

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18/07/25

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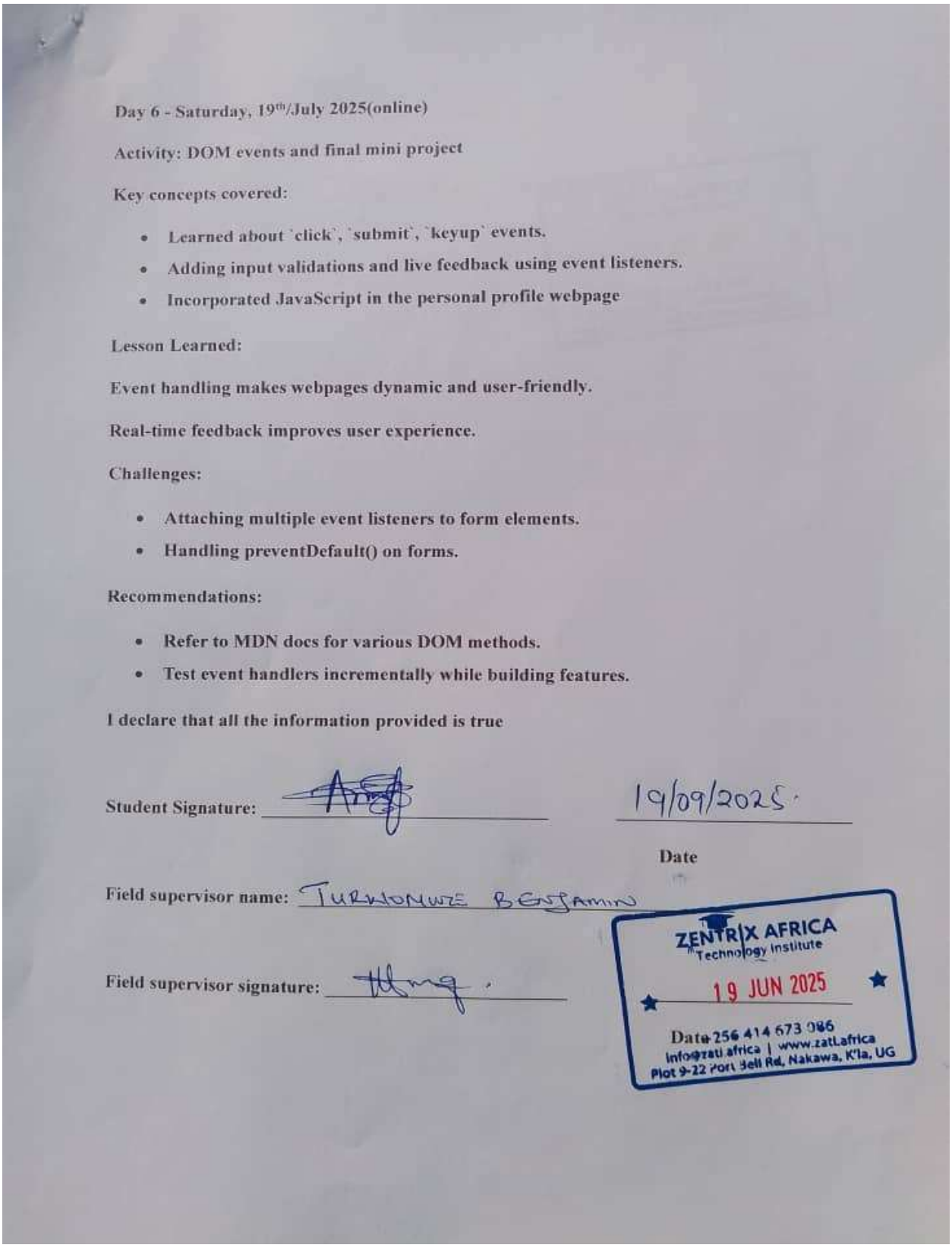
Figure 7 shows screenshot of record of progress day 5



Day 6 - Saturday, 19th/July 2025(online)

Activity: DOM events and final mini project

Key concepts covered:

- Learned about `click`, `submit`, `keyup` events.
- Adding input validations and live feedback using event listeners.
- Incorporated JavaScript in the personal profile webpage

Lesson Learned:

Event handling makes webpages dynamic and user-friendly.

Real-time feedback improves user experience.

Challenges:

- Attaching multiple event listeners to form elements.
- Handling preventDefault() on forms.

Recommendations:

- Refer to MDN docs for various DOM methods.
- Test event handlers incrementally while building features.

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Student Signature: _____ 19/09/2025.

Date

Field supervisor name: TURYAHUMWE BENJAMIN

Field supervisor signature: _____

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Figure 8shows screenshot of record of progress day 6

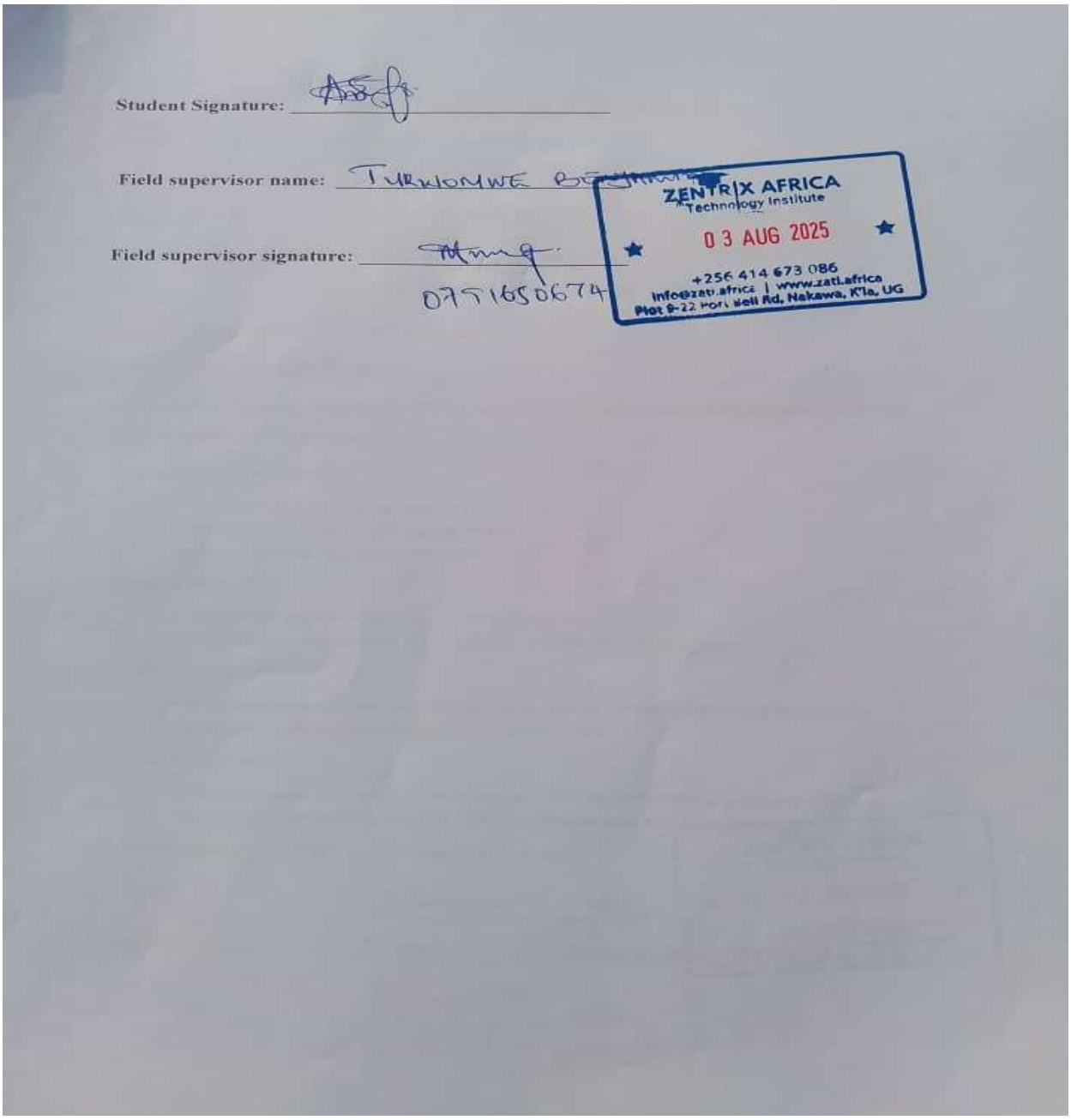

Figure 9 shows screenshot of final page of weekly report with the signature and name of the field supervisor

Below is the link to the repository of internship week 3

https://github.com/muhweziasaph/Internship-week-3.git