UGANDA TECHNOLOGY AND MANAGEMENT UNIVERSITY

WEEKLY JOURNAL REPORT

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SEP23/BSC/3567U/F

BACHELOR OF SCIENCE COMPUTER SCIENCE

WEEK 4: 20th/July/2025 – 27th /July/2025

1. What have been your successes/accomplishments?

- **Successfully set up and initialized a React application using create-react-app.**
- **Built multiple mini-projects including:**
  - **A simple calculator using React state and event handlers.**
  - **A counter app with increment, decrement, and reset features.**
  - **A To-do list app that supports adding, deleting, and toggling task completion.**
- **Applied concepts of JSX (JavaScript XML), props, state, and component structure.**
- **Deployed the React to-do app to Netlify, making it accessible online.**
- **Improved understanding of how component-based architecture improves frontend development.**

2. What have been the challenges/fears?

- **At first, understanding React' s JSX syntax felt unfamiliar compared to HTML and JavaScript.**
- **Managing state and props between components was confusing, especially when lifting state up.**
- **Encountered bugs when implementing event handling and conditional rendering in the to-do app.**
- **Deployment to Netlify had issues like missing build files or improper routing.**
- **Fear of not mastering React before moving to backend development in Week 5.**

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

- **Previous job training introduced basic frontend tools like HTML, CSS, and JavaScript only and this internship built upon that foundation by introducing modern frontend frameworks like React, which are widely used in real-world projects.**
- **Prior training provided basic theory; the internship adds real-world practice and project experience.**

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

- **In class, focus was mostly on theory and isolated code snippets; in the field, we apply that theory into complete real-world projects.**
- **React and version control tools like GitHub were briefly mentioned in class but not implemented practically as in internship.**
- **Class learning is mostly individual, but internship involves collaboration, documentation, and teamwork.**
- **In the field, there's greater emphasis on clean code, performance, and user experience more than in class.**

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

- **Learned how to collaborate and communicate effectively in both physical and online sessions.**
- **Experienced real project development workflow: from setup, coding, testing, to deployment.**
- **Improved my problem-solving skills by debugging and troubleshooting issues independently and with peers.**
- **Gained confidence in using modern technologies like React, GitHub, and Netlify.**
- **Inspired by mentorship and teamwork culture, which motivates growth and professionalism.**

6. List activities done for the week:

- **Day 1: Introduction to React and creating-react base app.**
- **Day 2: Built a calculator app using JSX (JavaScript XML), and state.**
- **Day 3: Created a counter app with React state and event handlers.**
- **Day 4: Developed a To-Do List UI (user interface) using input fields, buttons, and component structure.**
- **Day 5: Implemented delete & toggle functionality in the to-do app.**
- **Day 6: Reviewed all React apps, learned how to deploy the to-do app to Netlify, documented project.**

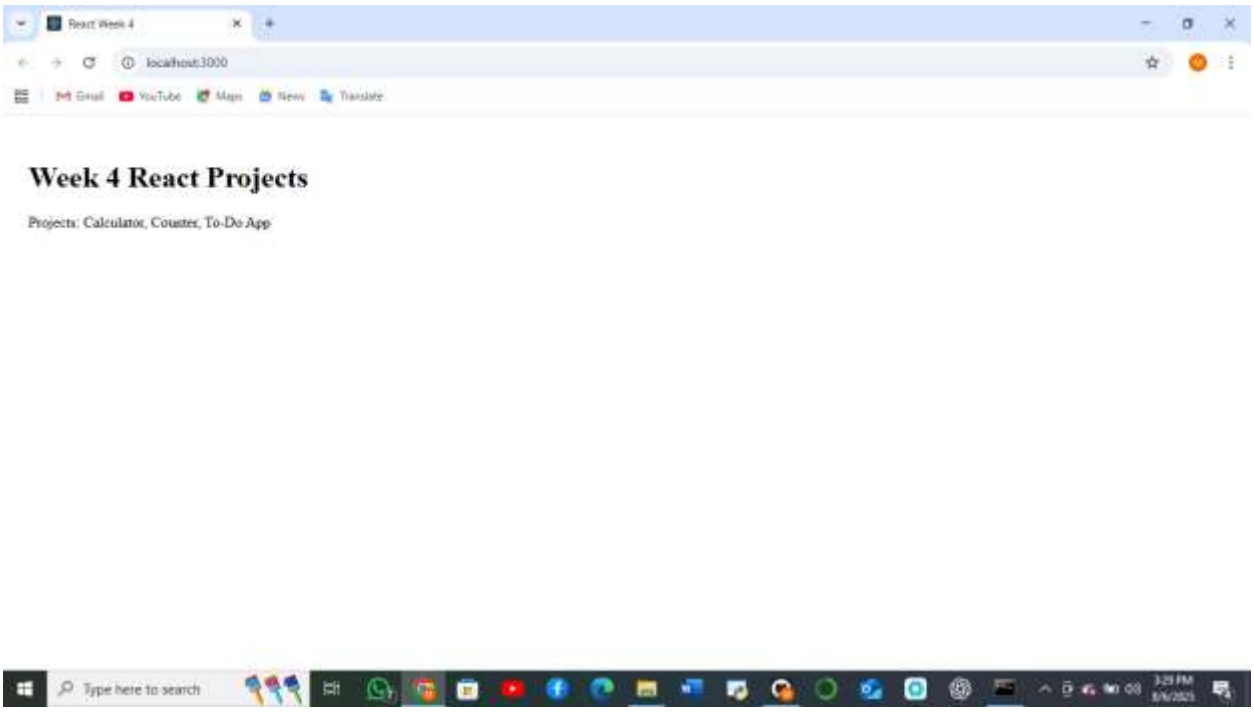


Figure 1 screenshot of the created react base app

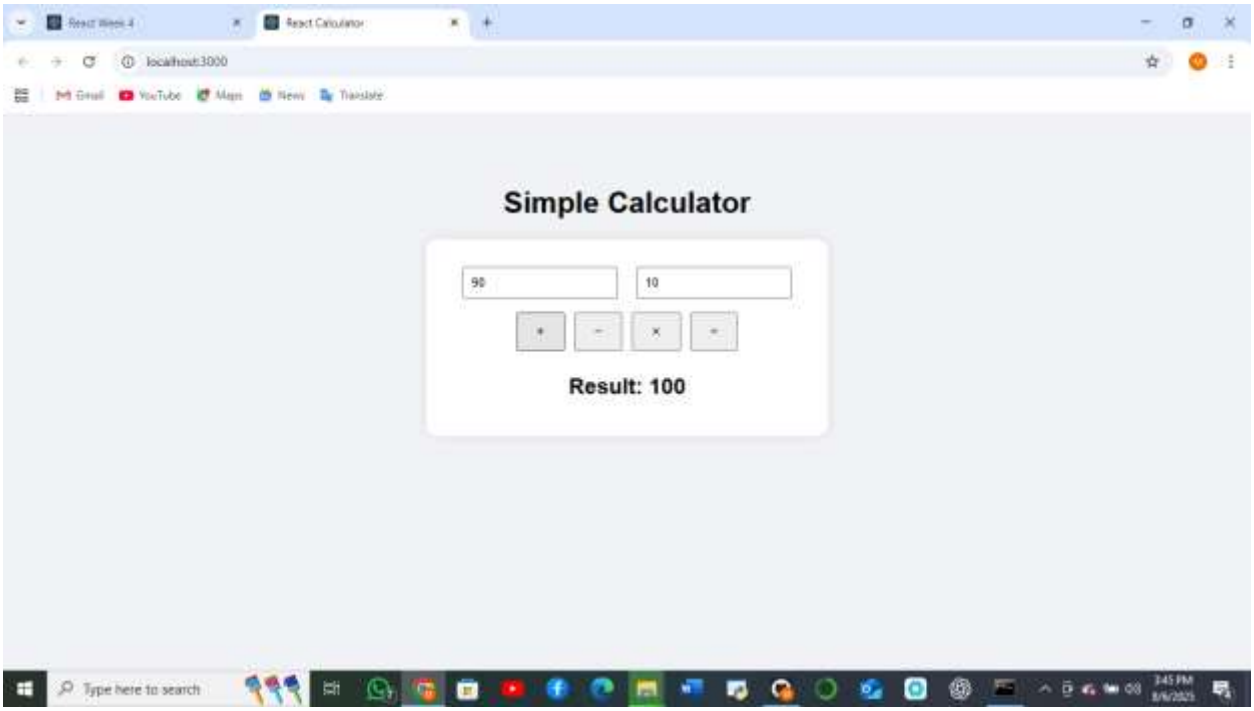


Figure 2 screenshot of day 2 created calculator app

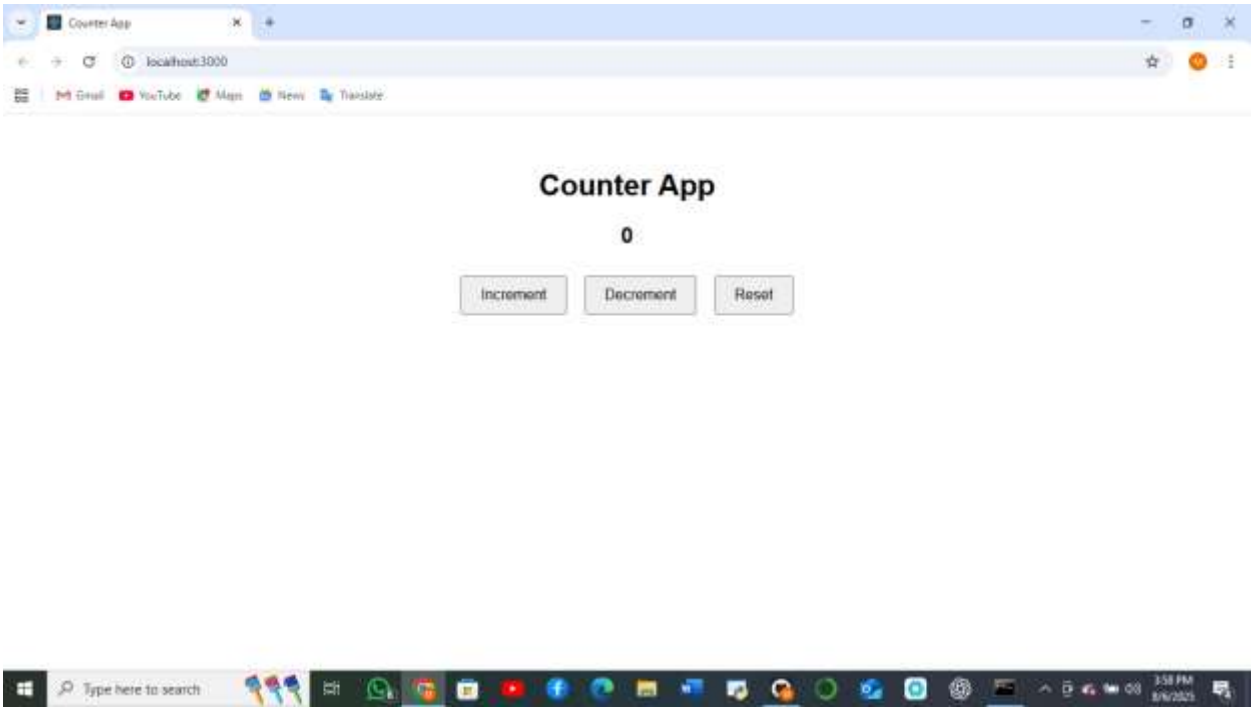


Figure 3 shows screenshot of day 3 created counter app

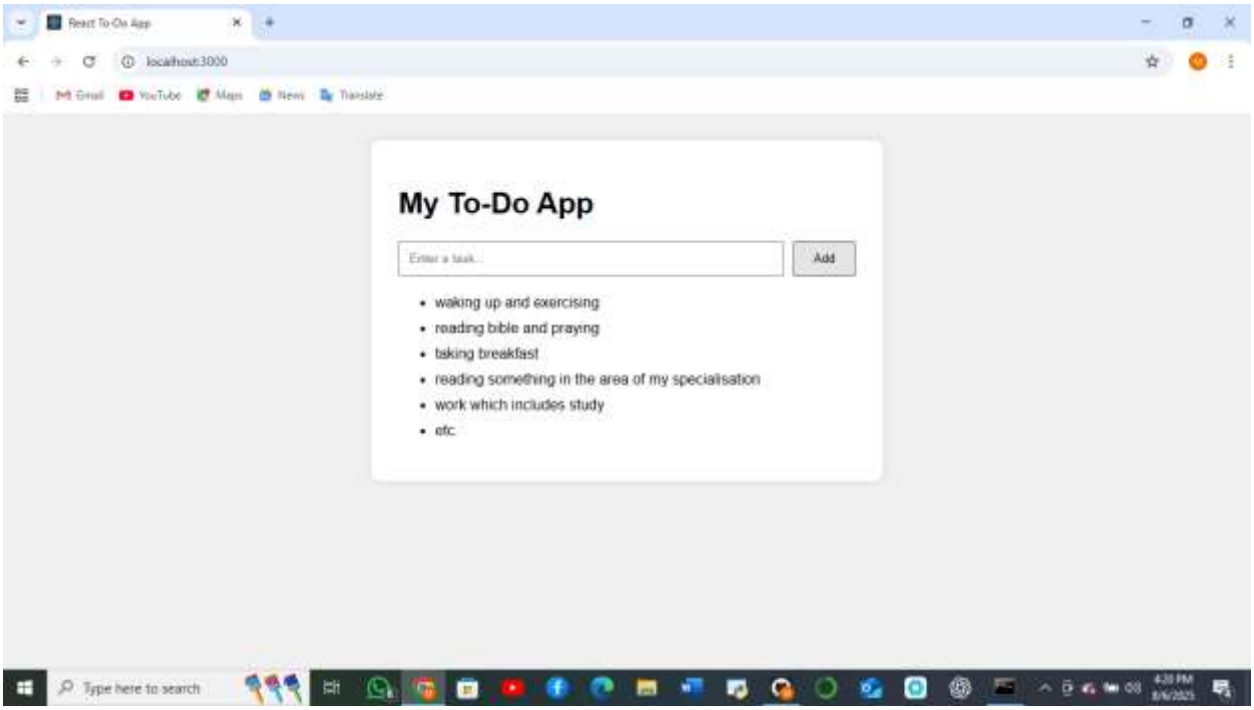


Figure 4 shows screenshot of created day 4 my to do list app

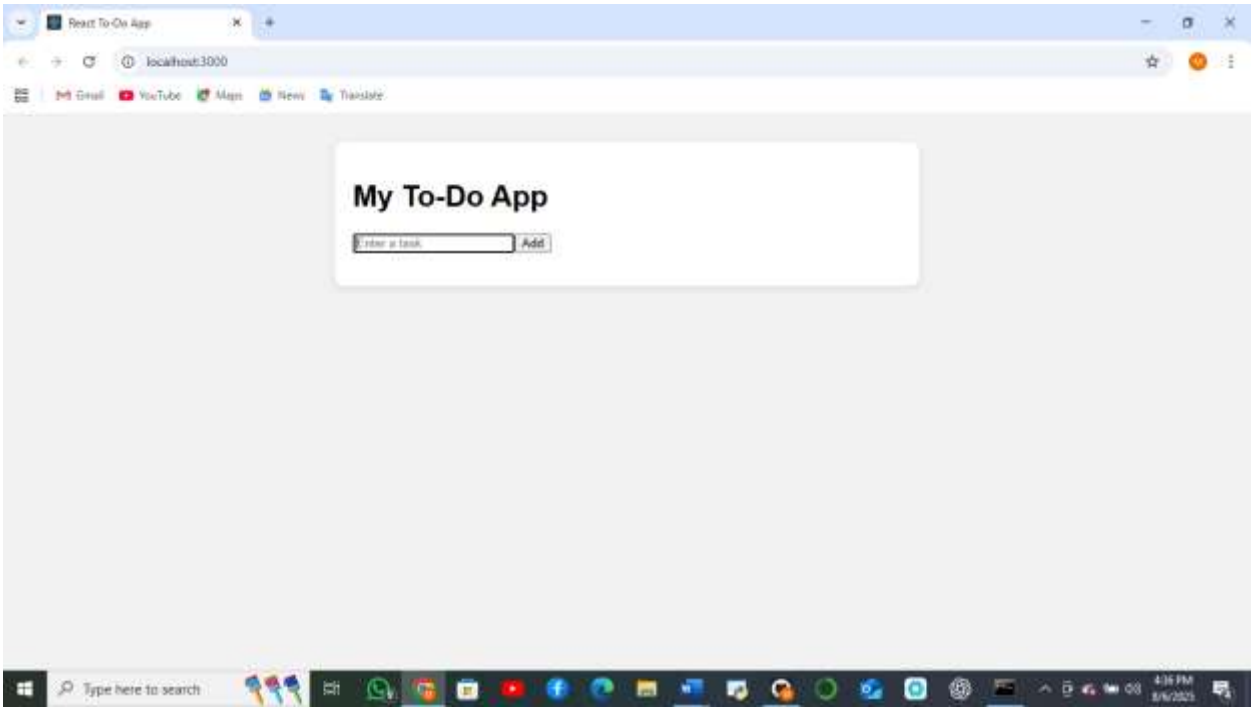


Figure 5 shows screenshot of day 5 created my to do list app

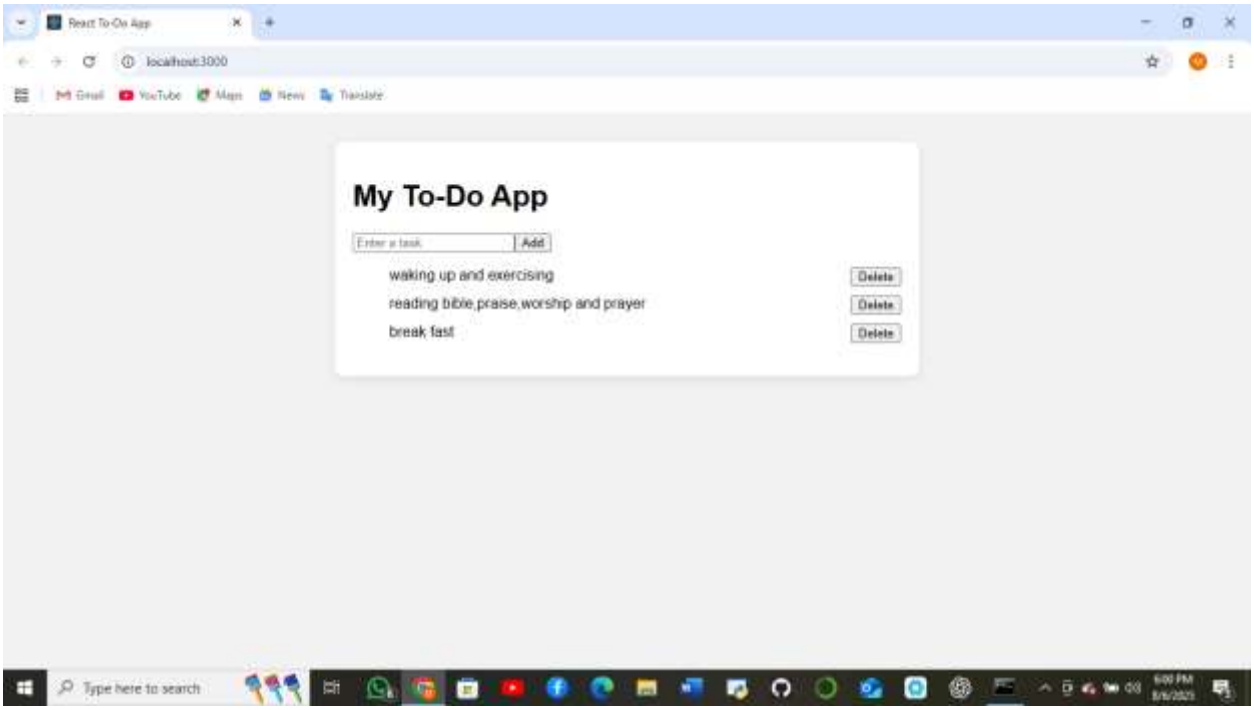
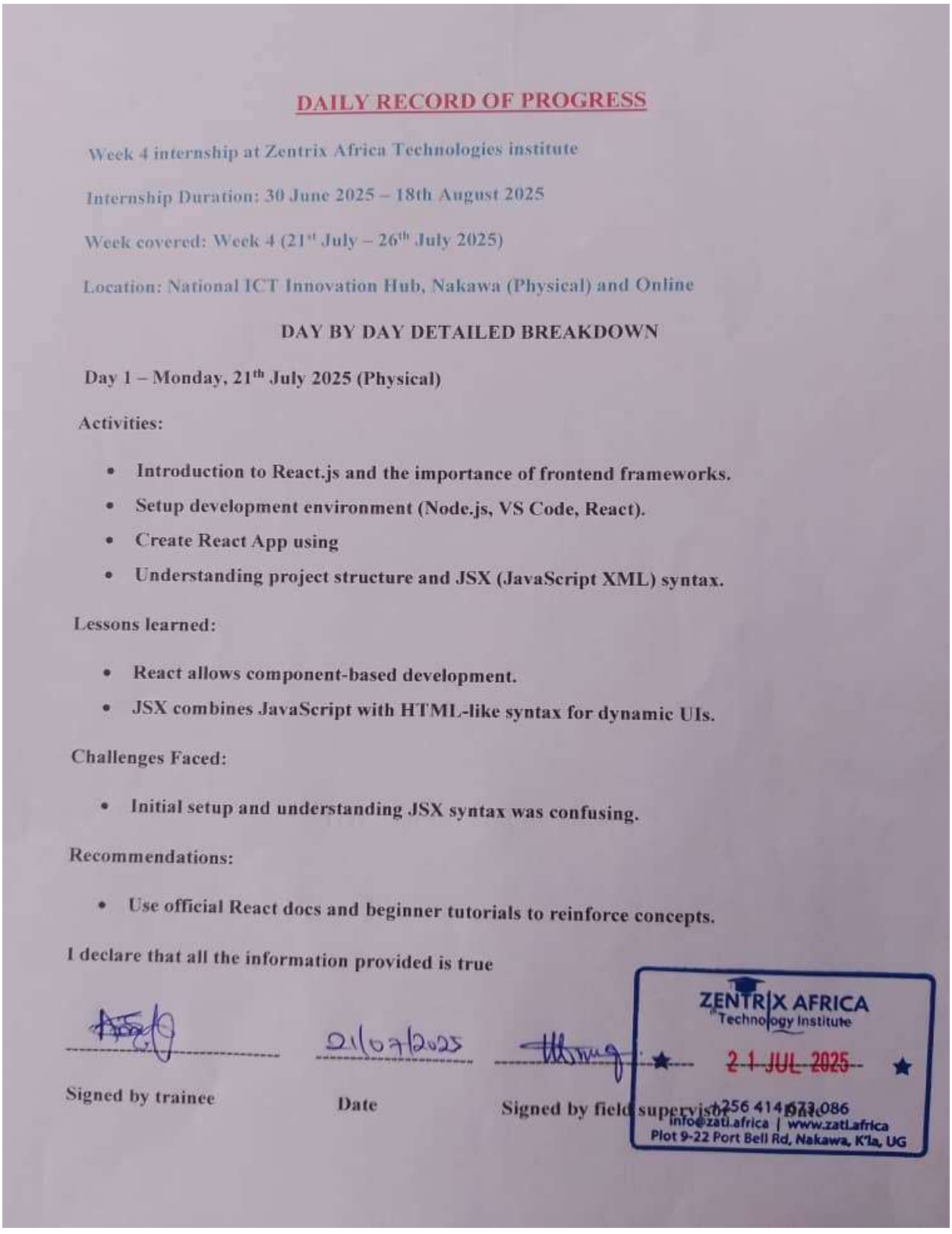


Figure 6 shows screenshot of the same app created on day 5 but now with added to do list to show the implementation of delete



DAILY RECORD OF PROGRESS

Week 4 internship at Zentrix Africa Technologies institute

Internship Duration: 30 June 2025 – 18th August 2025

Week covered: Week 4 (21st July – 26th July 2025)

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

DAY BY DAY DETAILED BREAKDOWN

Day 1 – Monday, 21th July 2025 (Physical)

Activities:

- **Introduction to React.js and the importance of frontend frameworks.**
- **Setup development environment (Node.js, VS Code, React).**
- **Create React App using**
- **Understanding project structure and JSX (JavaScript XML) syntax.**

Lessons learned:

- **React allows component-based development.**
- **JSX combines JavaScript with HTML-like syntax for dynamic UIs.**

Challenges Faced:

- **Initial setup and understanding JSX syntax was confusing.**

Recommendations:

- **Use official React docs and beginner tutorials to reinforce concepts.**

I declare that all the information provided is true

21/07/2025

Signed by trainee **Date** **Signed by field supervisor**

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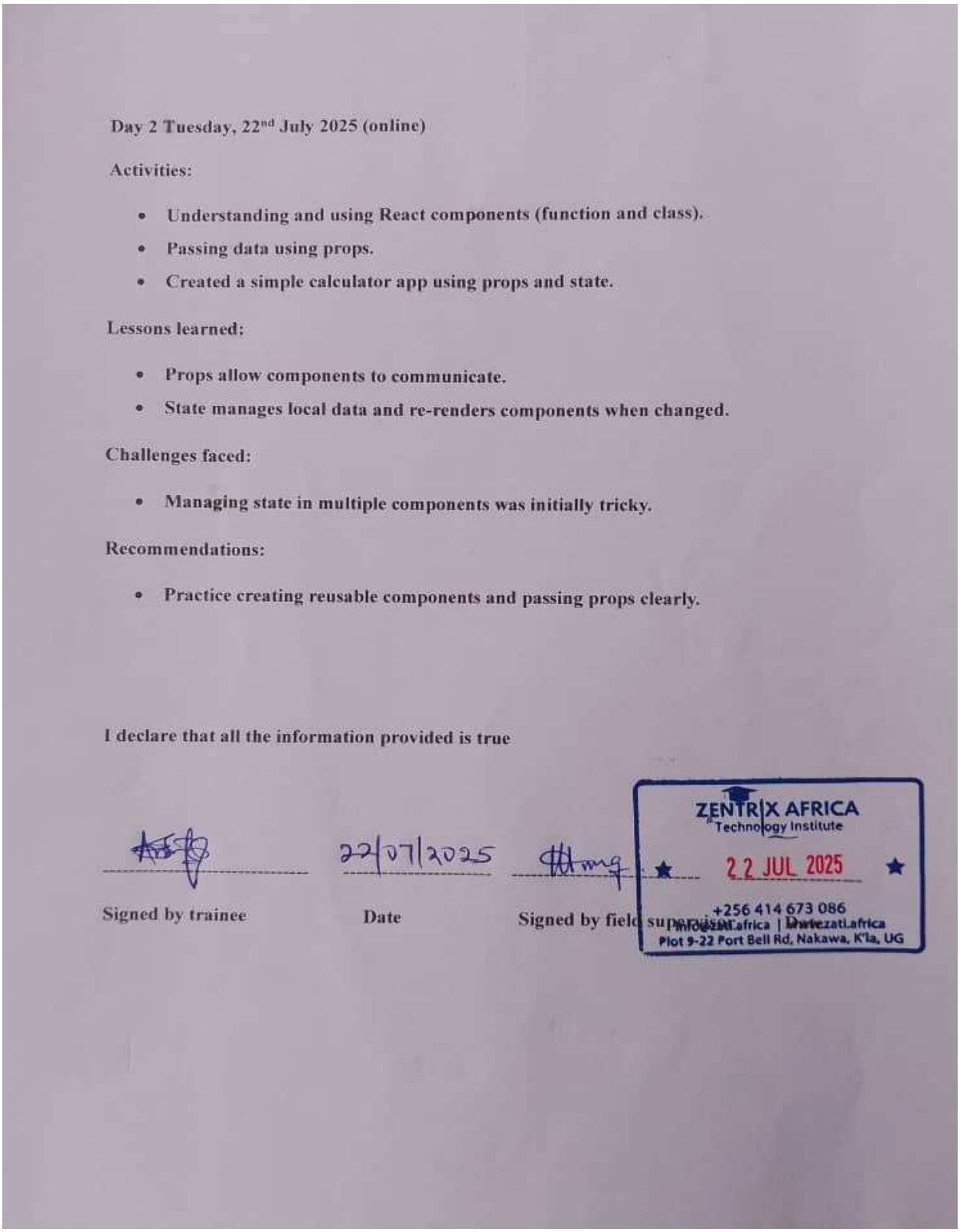
Figure 7 shows screenshot of record of progress day 1



Day 2 Tuesday, 22nd July 2025 (online)

Activities:

- Understanding and using React components (function and class).
- Passing data using props.
- Created a simple calculator app using props and state.

Lessons learned:

- Props allow components to communicate.
- State manages local data and re-renders components when changed.

Challenges faced:

- Managing state in multiple components was initially tricky.

Recommendations:

- Practice creating reusable components and passing props clearly.

I declare that all the information provided is true

22/07/2025

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Figure 8 shows screenshot of record of progress day 2

Day 3 Wednesday, 23rd July 2025 (physical)

Activities:

- Exploring state and event handling in React.
- Built a counter App.
- Explained the concept of lifting state up.

Lessons learned:

- State is essential for interactive applications.
- Event handlers can update state dynamically.

Challenges faced:

- Debugging event handlers and managing multiple states.

Recommendations:

- Use React developer tools to inspect components and state changes.

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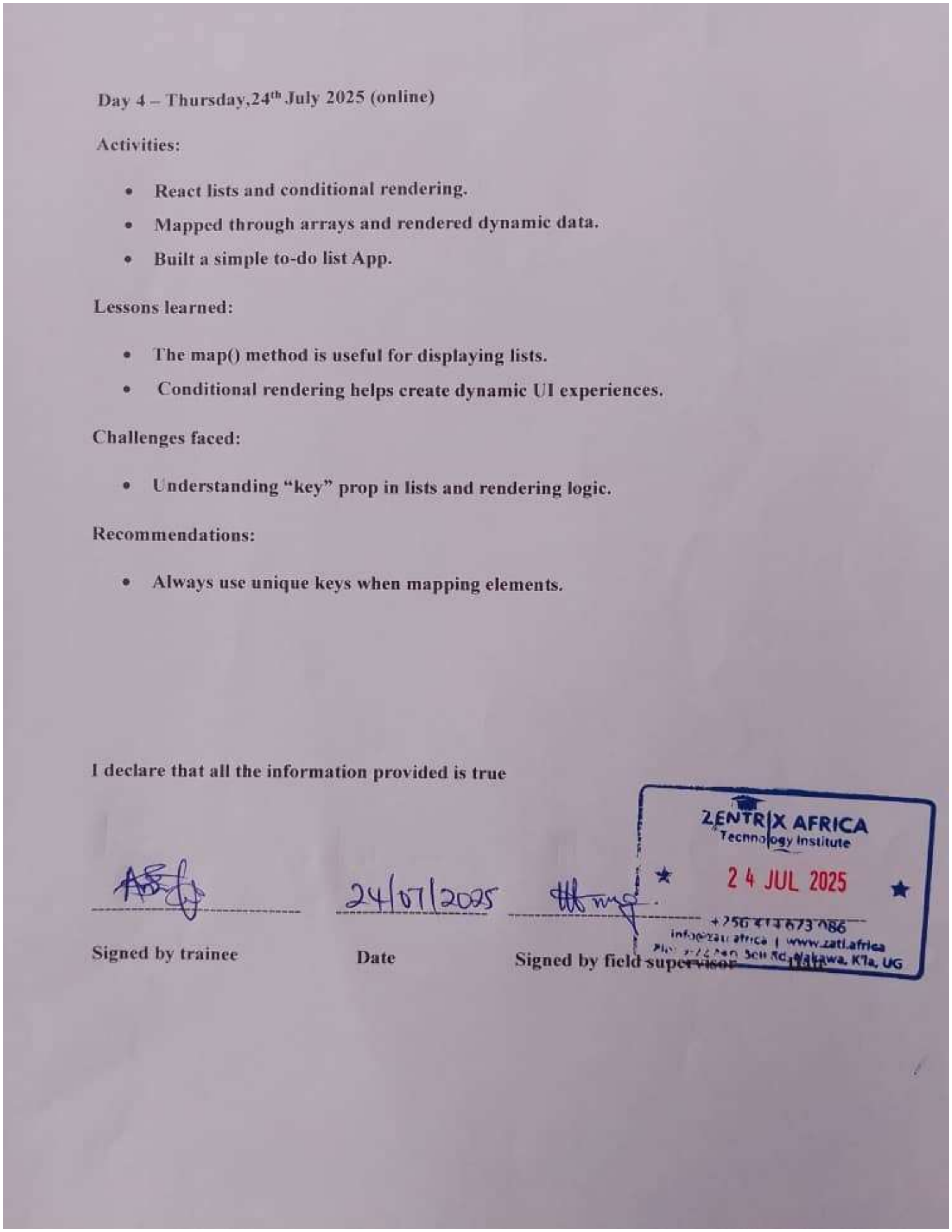
Figure 9 shows screenshot of record of progress day 3



Day 4 – Thursday, 24th July 2025 (online)

Activities:

- React lists and conditional rendering.
- Mapped through arrays and rendered dynamic data.
- Built a simple to-do list App.

Lessons learned:

- The map() method is useful for displaying lists.
- Conditional rendering helps create dynamic UI experiences.

Challenges faced:

- Understanding "key" prop in lists and rendering logic.

Recommendations:

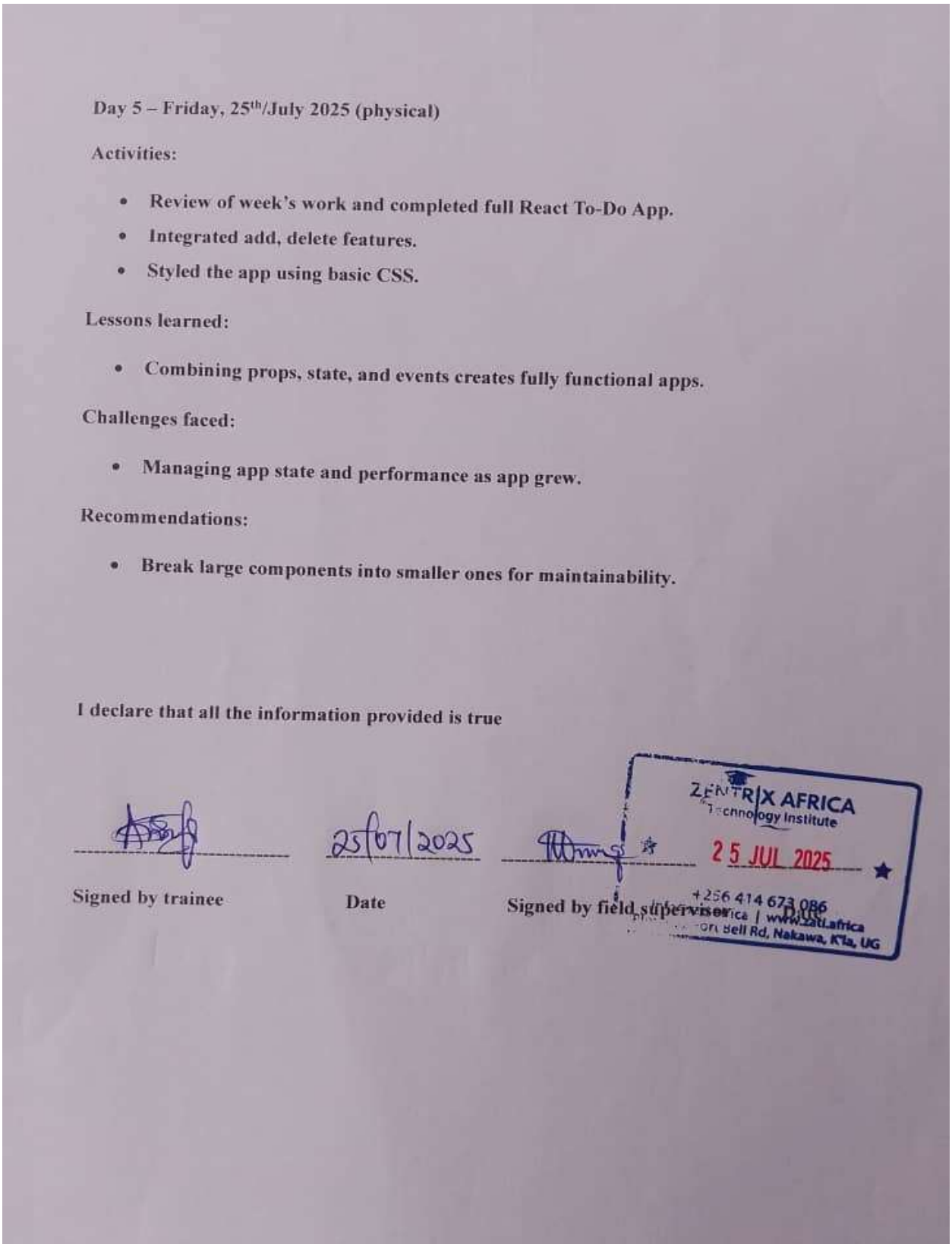
- Always use unique keys when mapping elements.

I declare that all the information provided is true

24/07/2025

Signed by trainee   Date   Signed by field supervisor   Date

Figure 10 shows screenshot of record of progress day 4



Day 5 – Friday, 25th/July 2025 (physical)

Activities:

- Review of week's work and completed full React To-Do App.
- Integrated add, delete features.
- Styled the app using basic CSS.

Lessons learned:

- Combining props, state, and events creates fully functional apps.

Challenges faced:

- Managing app state and performance as app grew.

Recommendations:

- Break large components into smaller ones for maintainability.

I declare that all the information provided is true

25/07/2025

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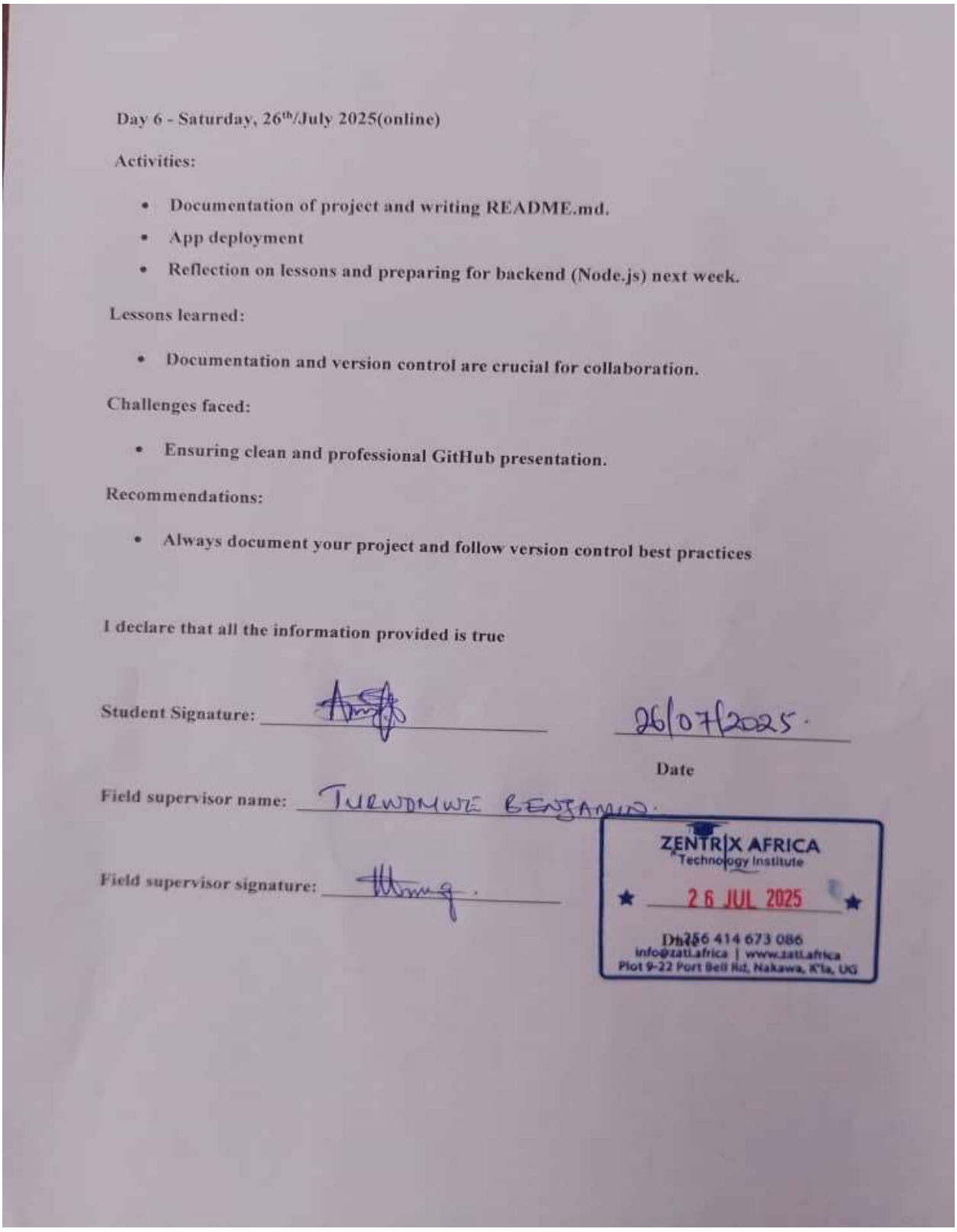
Figure 11 shows screenshot of record of progress day 5



Day 6 - Saturday, 26th/July 2025(online)

Activities:

- Documentation of project and writing README.md.
- App deployment
- Reflection on lessons and preparing for backend (Node.js) next week.

Lessons learned:

- Documentation and version control are crucial for collaboration.

Challenges faced:

- Ensuring clean and professional GitHub presentation.

Recommendations:

- Always document your project and follow version control best practices

I declare that all the information provided is true

Student Signature: _____ 26/07/2025.

Date

Field supervisor name: TURWOMWE BENJAMIN.

Field supervisor signature: _____

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Figure 12shows screenshot of record of progress day 6

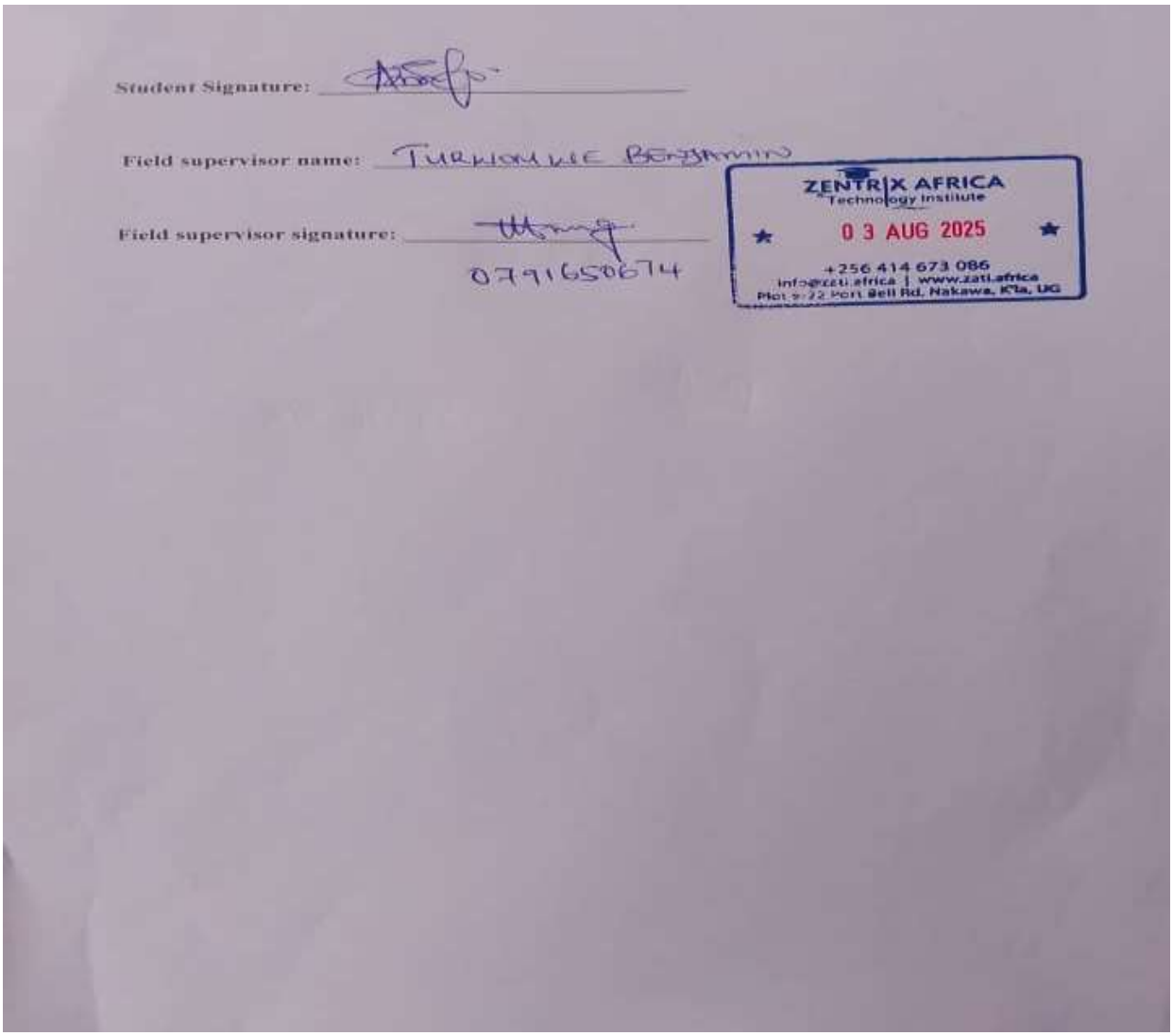

Figure 13 shows screenshot of final page of weekly report with the signature and name of the field supervisor

Below is the link to the repository of internship week 4

https://github.com/muhweziasaph/Internship-week-4.git