# CHAPTER FIVE

# CONCLUSION AND RECOMMENDATIONS

## 5.1 Conclusion

This paper presents a comprehensive survey of a fully functional IoT device that works to gather what used to be manually retrieved information, and digitize it. This device will make the lives of students and staff alike easier, by: reducing manual tasks and carrying around of hardcopy evidence for students; It will save the space used by librarians and admin officers for storing documents; It will reduce the carbon footprint created through the burning of unneeded documents; It will also boost data analysis by offering huge insights into the behavior and activities of students in and around the school.

## 5.2 Problems Encountered/Limitations

Below are the list of issues or problems I encountered while building the device.

1. Updating server code was data expensive, I had to make two uploads, one to GitHub and one to my cloud hosting. I discovered GitHub actions and it made my life easier. I only need to upload code to GitHub once and it does the rest for me.
2. Understanding the Node MCU pin counterparts for Arduino, because all code samples were made for Arduino boards.
3. Unable to mount an LCD screen because all the Node MCU pins were in use. Opted for LED's instead.
4. Sometimes bad internet connection

## 5.2 Recommendation/suggestion for future work

I strongly recommend that more research should be carried out in this very project, as further development will strongly improve the lives of people and also benefit companies, industries and small-scale business too.