**CHAPTER FOUR**

**RESULTS AND DISCUSSION**

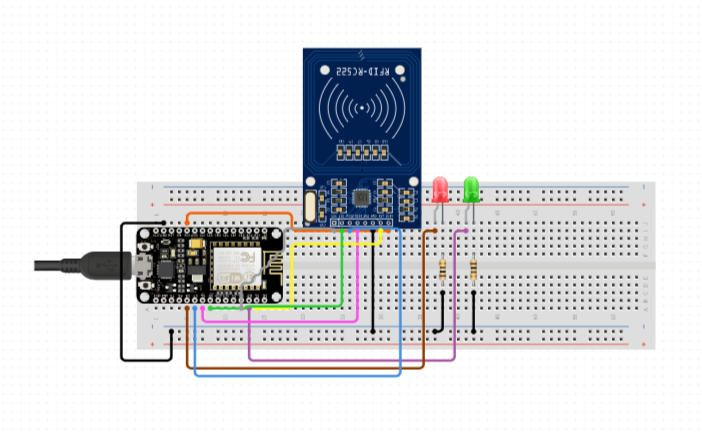
1. **Implementation Procedures**

At the end of development, we have a very light weight device connected to a hosted web app through the internet with Wi-Fi. After the hardware was wired, soldered, coupled and programmed using Arduino IDE, it went through a rigorous testing phase for speed and durability. Next, was the software/web app. The UML Use case and Class diagrams helped to guide the next phases of development. The SQL database was built first with several tables including:

* Students
* Staff
* Machines
* Tasks
* School Fees
* Departmental Fees
* Faculty Fees
* Jobs
* Job Entries
* Faculties
* Departments
* Courses

The coding went next, with the appropriate user interface built with HTML, CSS, JavaScript, then the server-side code written with PHP. The web app has a page that accepts GET requests comprising of the Machine ID and the Unique card ID of a student. Once received, the web app confirms the task assigned to it by the lecturer then proceeds to check the database for what is required. This results a true or false value depending on how successful the task went. The code for both the hardware and software are hosted online at: <https://www.github.com/Emerald2240/rfid-smard-card-reader>

1. **Wiring / Assembly**

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**Fig X: Breadboard Wiring of The System**