CCN OPEN ENDED PROJECT REPORT

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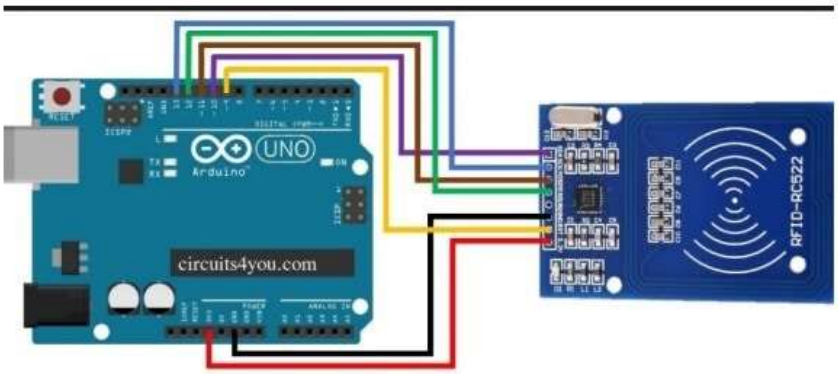
PROBLEM STATEMENT:

Implementation of POS (Point of Sale) Transaction using socket programming and capturing and analyzing the packets using Wireshark.

IMPLEMENTATION:

Arduino:

With the help of Arduino Uno and MFRC522 the card is scanned and it's UID is sent to the serial monitor.



Link for Arduino code:
https://drive.google.com/file/d/18g98RaansdgWDDO_exUqzES9ZJ5H0D0E/view

Socket Programming:

The server is located at a constant IP address. The connection between the client and server is a simple one. UDP is chosen as the transport layer protocol as it is faster than TCP and the data sent over the network is less. Based on the client input the server extracts the necessary data from a CSV file (database.csv) and performs the transaction. The client is reading the UID from serial monitor and transmits it to the server for verification.

Link for client and server code:
https://drive.google.com/drive/folders/1SL9_creyOpVvtNHdpgF3ylyafZ4QfTzv?usp=sharing

OUTCOME:

In the current digital world, it is convenient to go cashless and perform "no-contact" transactions. The transaction has be carried out in a safe and secure manner. It is fast, easy to use and provides a seamless experience for the user. This project shows the multiple steps in the transaction (between client and server) which is analyzed using Wireshark software.

REFERENCES:

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