WELCOME TO

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DEFENCE DATA SECURITY USING BLOCKCHAIN

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ABSTRACT

This project is titled “ **DEFENCE'S DATA SECURITY** ”.Blockchain is set to radically change our way of life in the coming decades. “one of the most important technologies since the advent of the Internet.” Based on a peer-to-peer (P2P) topology, blockchain is a distributed ledger technology that allows data to be stored globally on thousands of servers – while letting anyone on the network see everyone else's entries in near-realtime . In other words, blockchain can be described as a global online database, that anyone, anywhere in the world, with an internet connection, can use. As a consequence, a blockchain doesn’t belong to anyone, and it stores information permanently across a network of personal computers. Consequently, it can be seen as a revolutionary technology, thanks to its decentralised nature and its ability to distribute information among its participants, in total transparency evenly.

INTRODUCTION

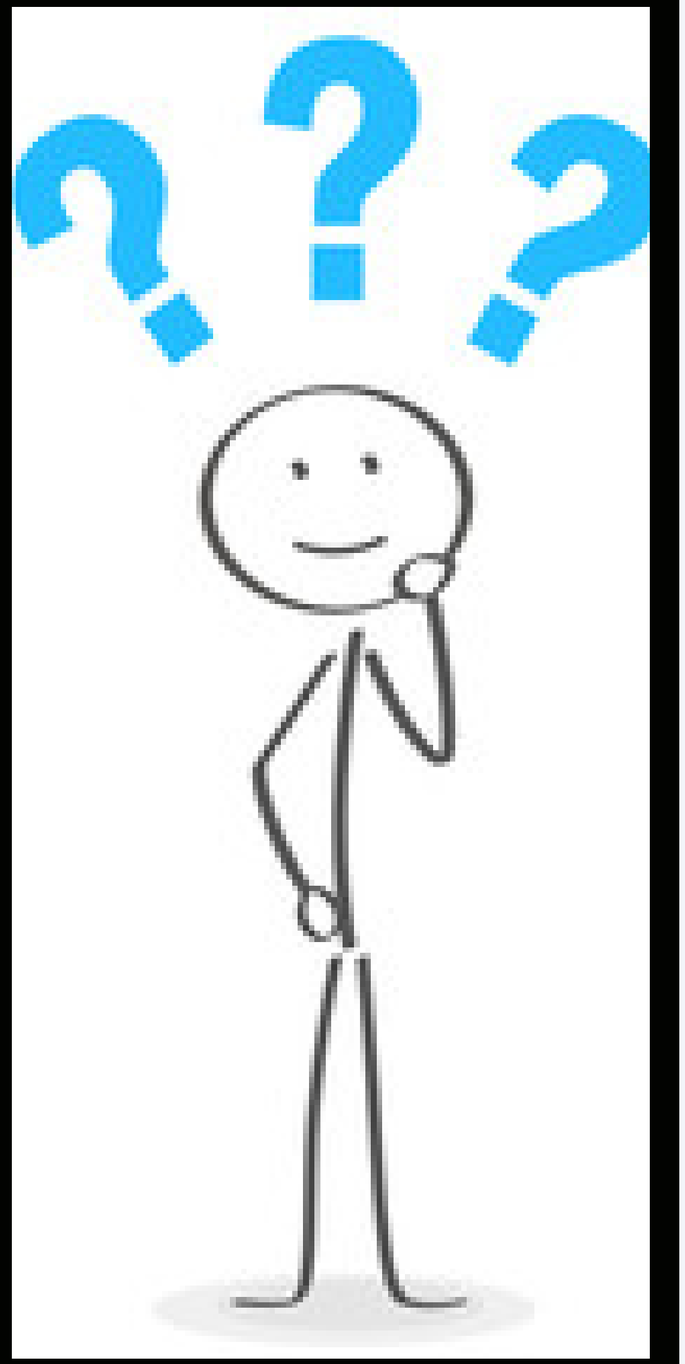
THIS PROJECT IS TITLED AS “DEFENCE’S DATA SECURITY”. THIS SOFTWARE PROVIDES FACILITY TO UPLOAD THE SOLDIERS DATA AND HIGHLY CONFIDENTIAL DATA OF MISSILES AND ATTACKS.THIS PROJECT USES ETHEREUM SMART
CONTRACT FOR INTERACTING WITH BLOCKCHAIN AND STORING DATA AND KEEPING IT SECURE.

USING THE “UNTAMPERABLE” FEATURE OF BLOCKCHAIN TECHNOLOGY, WE CAN PROVIDE A SOLUTION TO THE PROBLEM OF “HARD TO MAINTAIN EVIDENCE” IN SENSITIVE DATA MANAGEMENT IN MILITARY INSPECTION AND SUPERVISION, HUMAN RESOURCES AND MEDICAL AND HEALTHCARE.“TRUTHFUL RECORD” OF ALL INFORMATION CAN
BE REALIZED THROUGH “WHOLE-NETWORK WITNESS”, THUS AVOIDING DOCUMENT COUNTERFEITS, FILE MISSING AND INFORMATION TAMPERING.

THE MAIN FEATURES OF THIS PROJECT
A) STORES SOLDIERS DATA AND MISSILE INFORMATION
B) FOR STORING DATA IT REQUIRES LIKE (AADHAR NUMBER , BATCH NO , AGE , IDENTIFICATION NO, INCLUDED IN THE MISSION)
C) ADMIN VERIFICATION

EXISTING SYSTEM

Currently, it is the Blockchain in Defense and Security. Blockchain Technology in Defense, Blockchain for Military Defense, Blockchain for Aerospace and Defense, etc are widely examined and explored today for several reasons. It is seen that the military and defense sector are into implying the Blockchain Technology for maximizing their capacity in their different field of action. Blockchain military use cases are many like the Military Drone Technology, Blockchain Battleships, Decentralized Weapon Control Systems, etc. In Military Drone Technology, the Artificial Intelligence and Blockchain Technology are combined together with drone technology, opening immense possibilities of data collection.



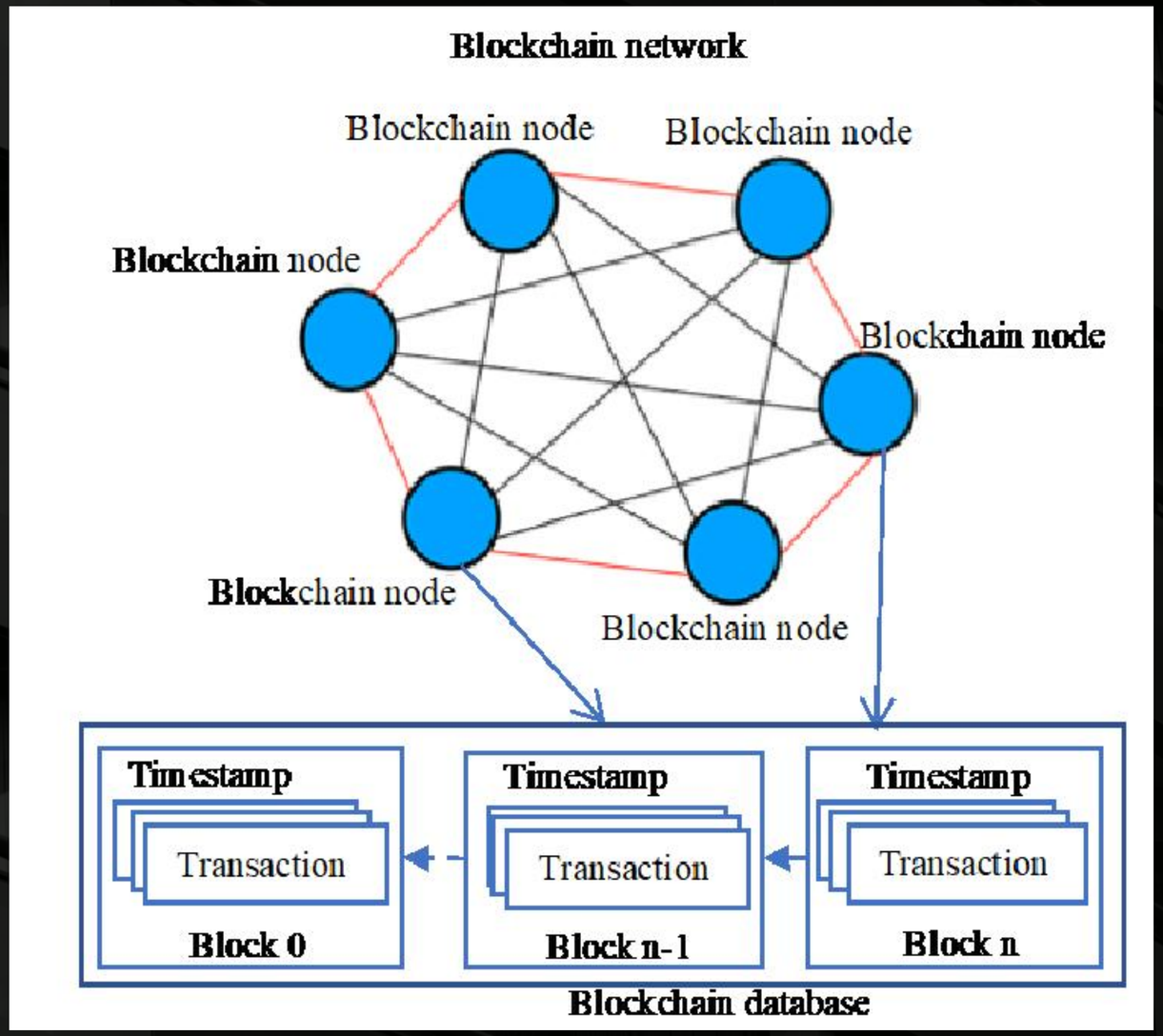
Problem Statement

As we have seen in daily life that many citizens data or information getting leaked by cyber threats , In the same way many hackers who are working for their countries they are trying to stole the defence information of other countries , if that happens the country will get into a risk because their military , airspace and navy information with them

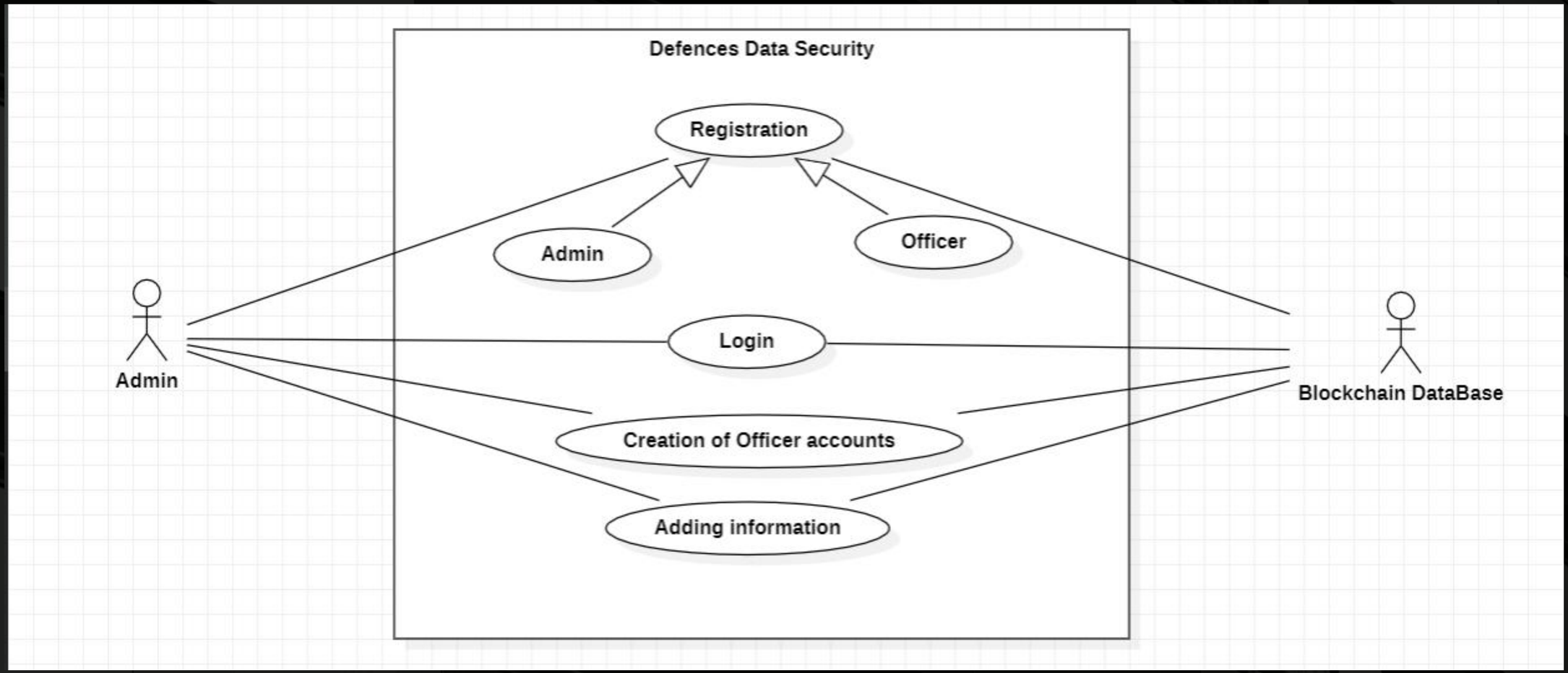
PROPOSED SYSTEM

The aim of proposed system is to develop a system of improved facilities. The proposed system can overcome all the limitations of the existing system. The system provides higher accuracy and reduces the classification work. The existing system has several disadvantages and many more difficulties to work well. The proposed system that introduces blockchain technology in defence like storing information of a solider in one separate block which is not accessible for everyone , only higher officials can have access to it with admin login , in the same way secret operations missiles and attacks information should be stored in blocks which cannot be edited or stolen

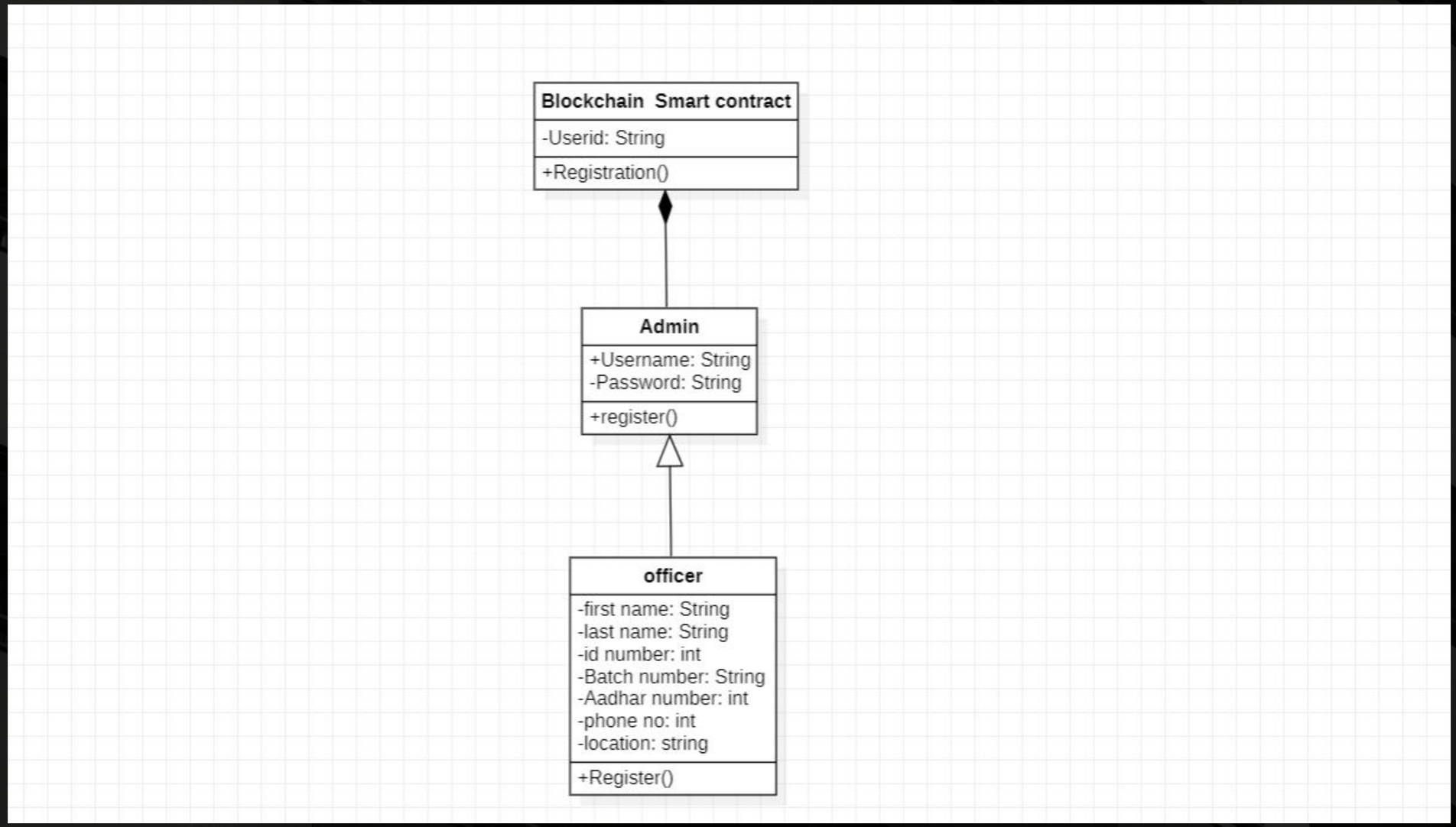
ARCHITECTURE DIAGRAM



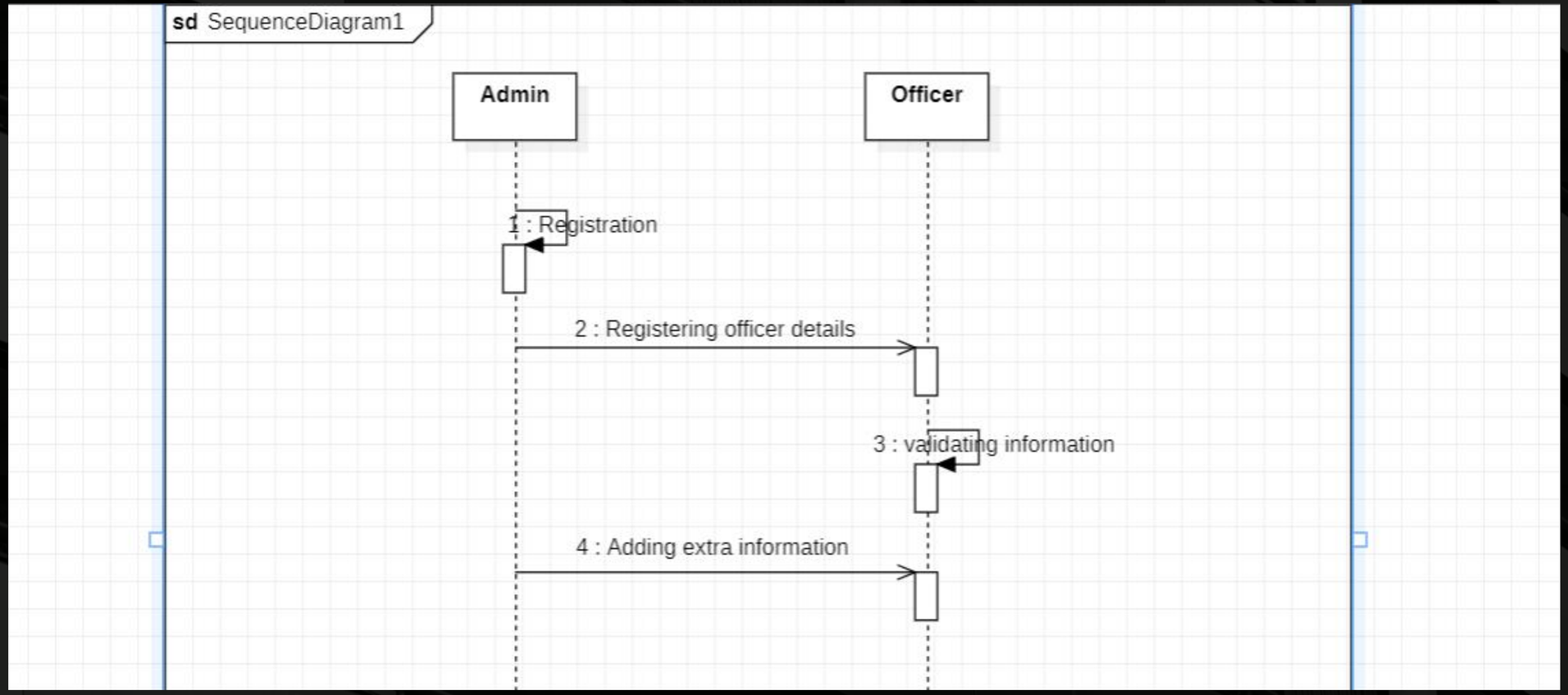
USE CASE DIAGRAM

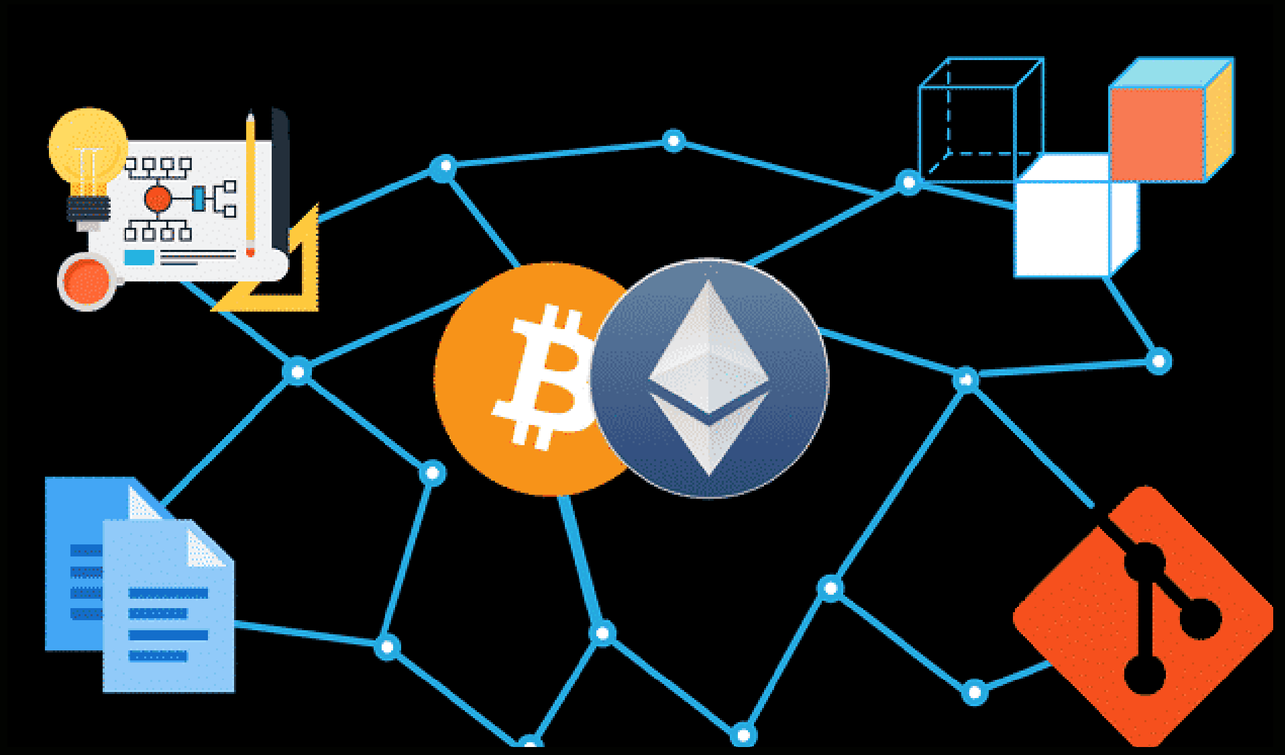


CLASS DIAGRAM



SEQUENCE DIAGRAM



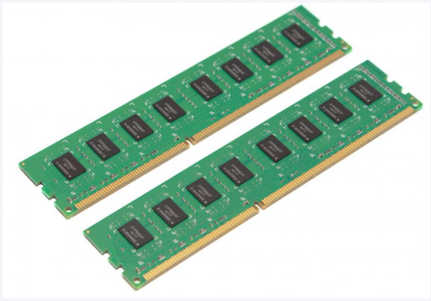


TOOLS AND TECHNOLOGIES

Windows 10
Solidity 0.8.10
HTML
CSS
NodeJS v10.19.0

HARDWARE REQUIREMENTS

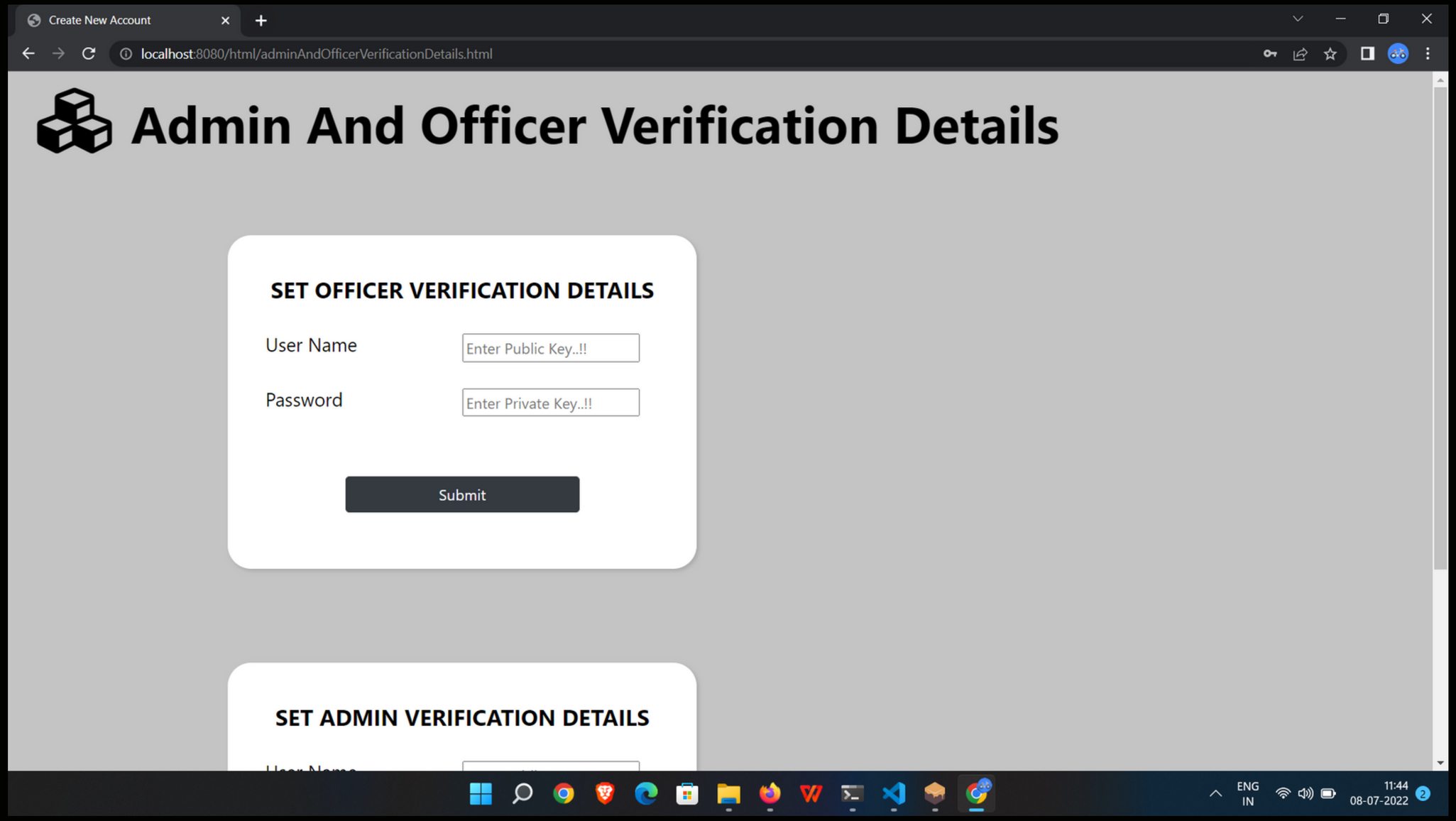
HARDDISK
1TB or above



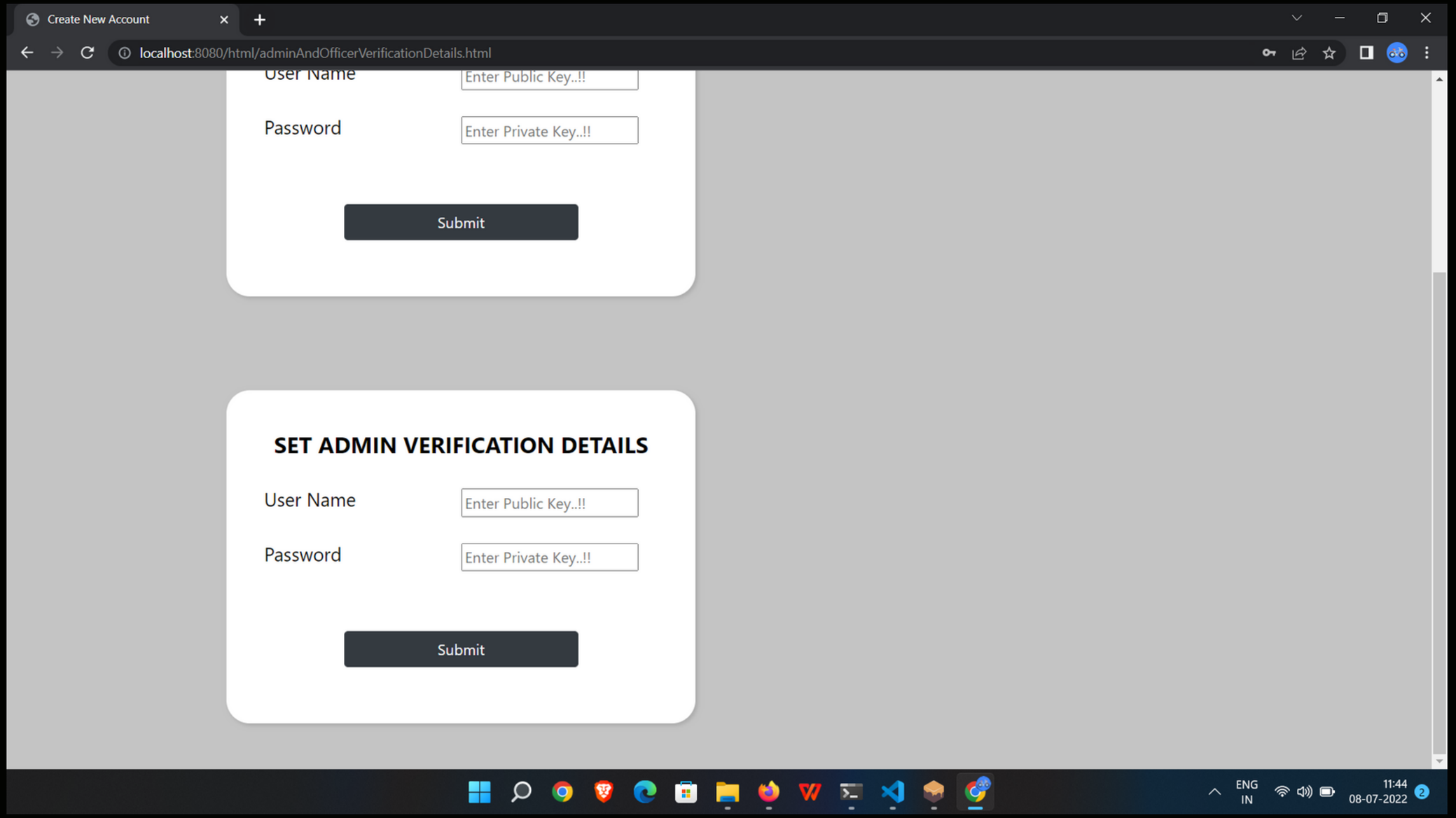
RAM
2GB or above

SYSTEM
Intel i3 or above

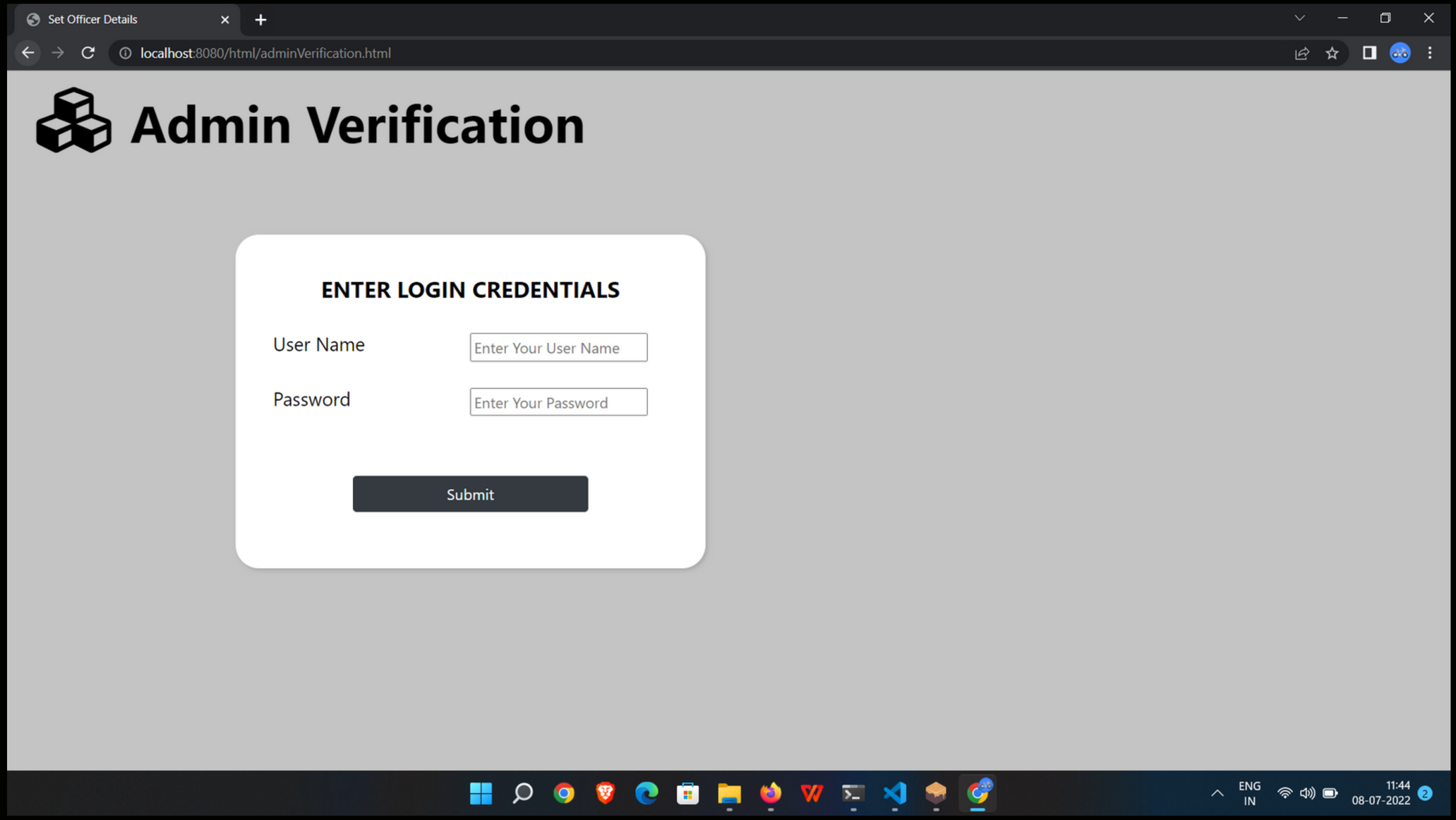
RESULT


Create New Account
localhost:8080/html/adminAndOfficerVerificationDetails.html
Admin And Officer Verification Details
SET OFFICER VERIFICATION DETAILS
User Name
Enter Public Key..!!
Password
Enter Private Key..!!
Submit
SET ADMIN VERIFICATION DETAILS
ENG
IN
11:44
08-07-2022

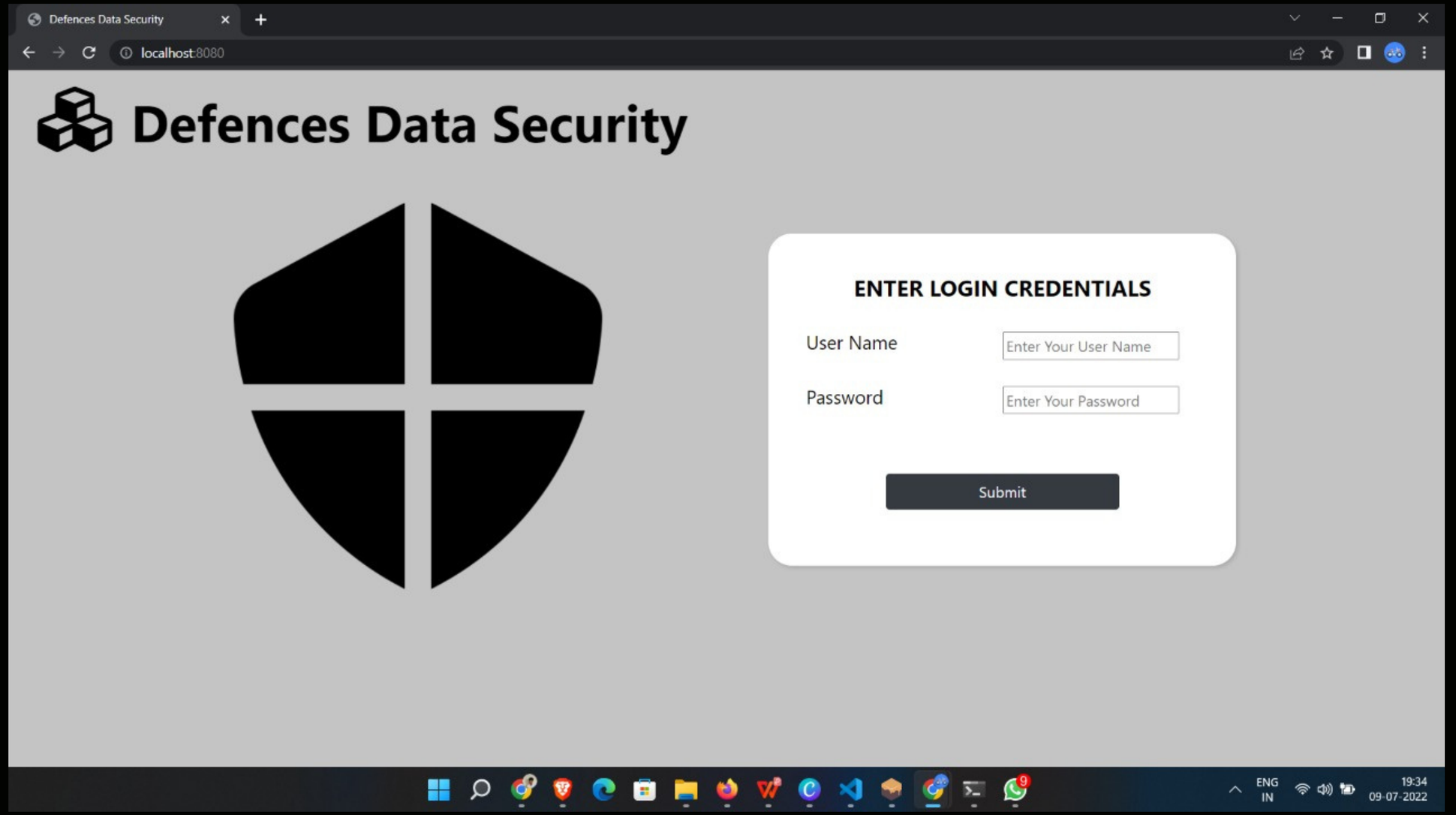
RESULT


Create New Account
localhost:8080/html/adminAndOfficerVerificationDetails.html
User Name
Enter Public Key..!!
Password
Enter Private Key..!!
Submit
SET ADMIN VERIFICATION DETAILS
User Name
Enter Public Key..!!
Password
Enter Private Key..!!
Submit
ENG
IN
11:44
08-07-2022

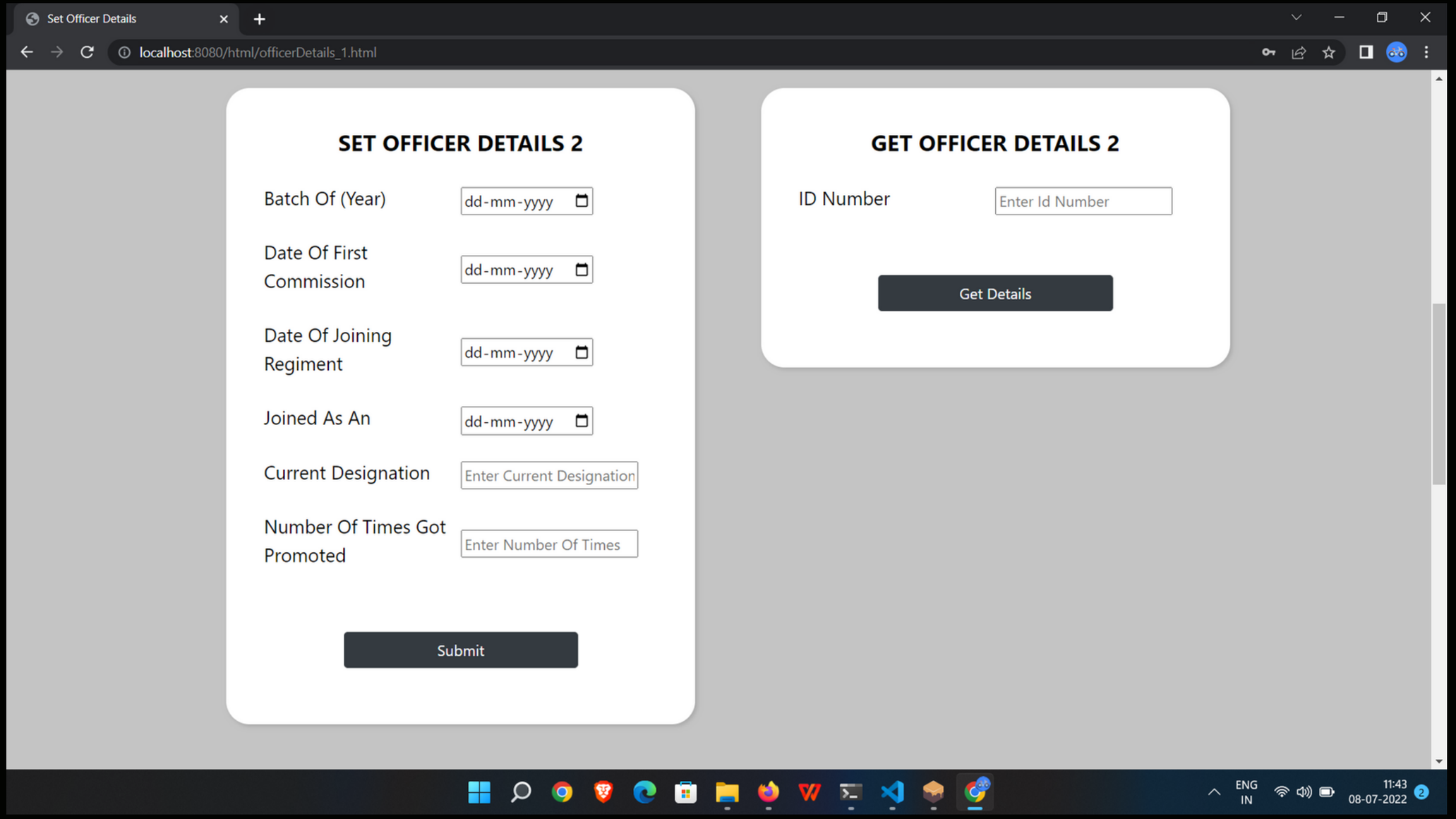
RESULT


Set Officer Details
localhost:8080/html/adminVerification.html
Admin Verification
ENTER LOGIN CREDENTIALS
User Name
Enter Your User Name
Password
Enter Your Password
Submit
ENG
IN
11:44
08-07-2022

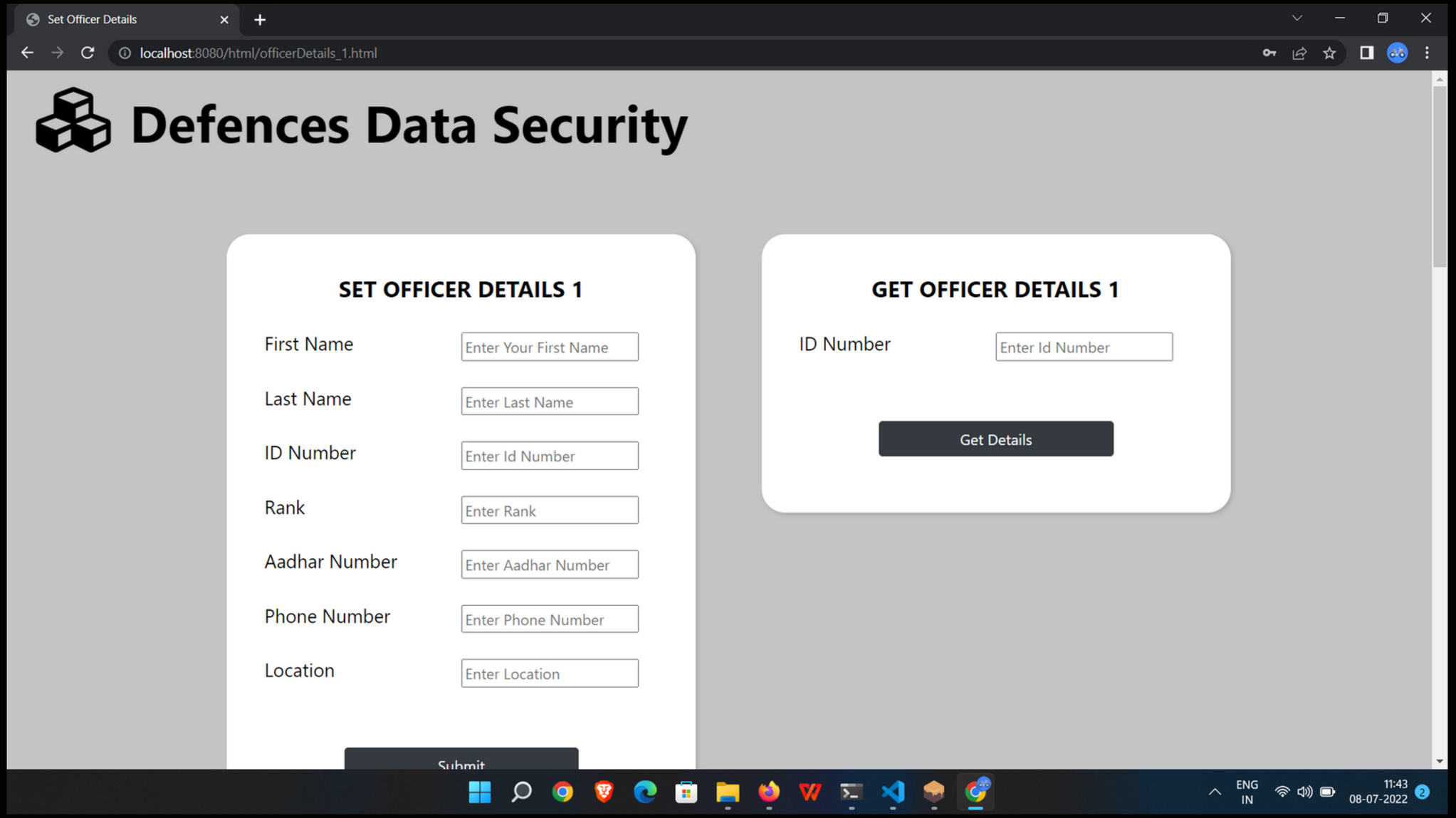
RESULT


Defences Data Security
localhost:8080
Defences Data Security
ENTER LOGIN CREDENTIALS
User Name
Enter Your User Name
Password
Enter Your Password
Submit
ENG
IN
19:34
09-07-2022

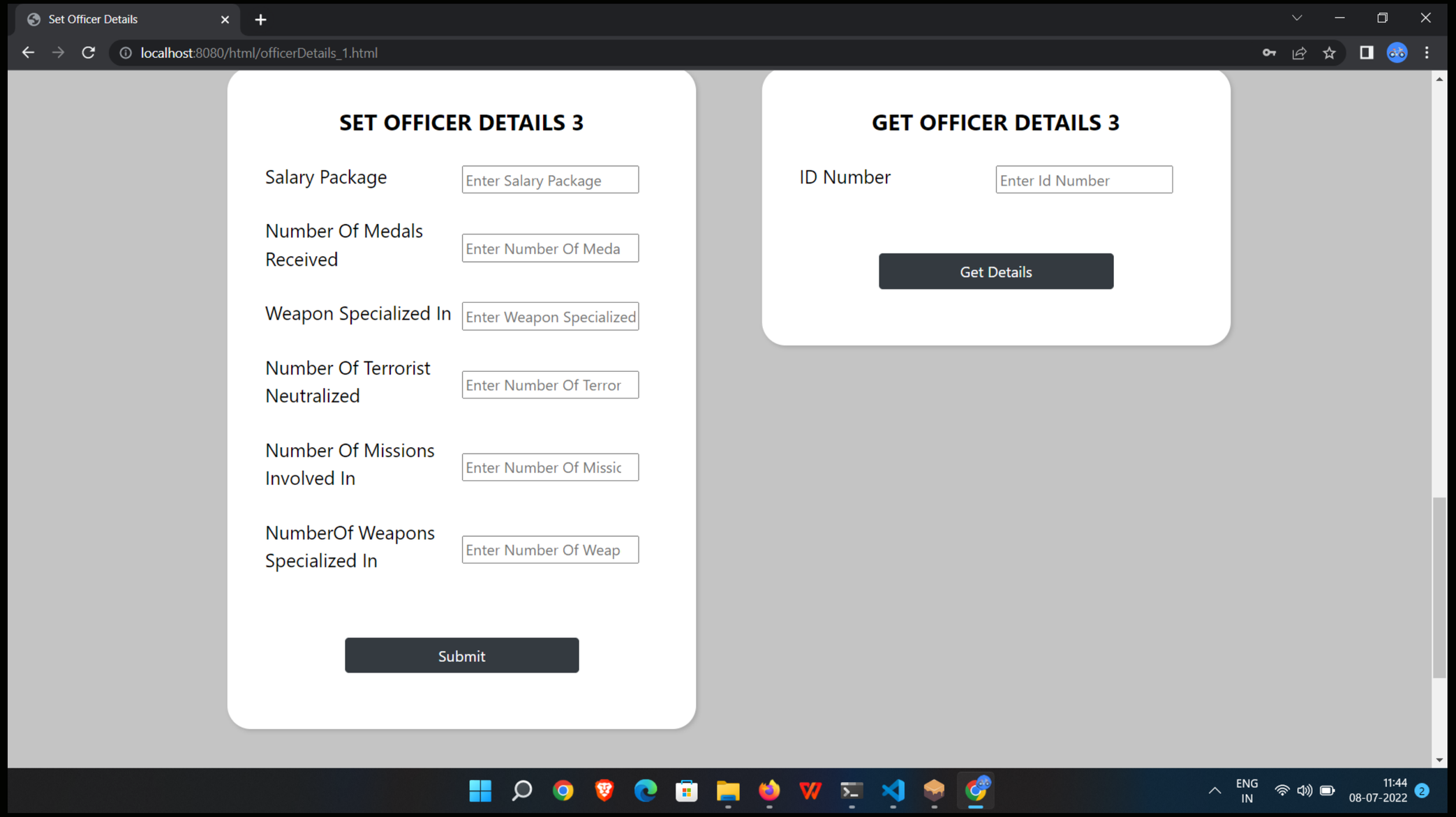
RESULT


Set Officer Details
localhost:8080/html/officerDetails_1.html
SET OFFICER DETAILS 2
Batch Of (Year)
dd-mm-yyyy
Date Of First Commission
dd-mm-yyyy
Date Of Joining Regiment
dd-mm-yyyy
Joined As An
dd-mm-yyyy
Current Designation
Enter Current Designation
Number Of Times Got Promoted
Enter Number Of Times
Submit
GET OFFICER DETAILS 2
ID Number
Enter Id Number
Get Details
ENG IN
11:43
08-07-2022

RESULT


Set Officer Details
localhost:8080/html/officerDetails_1.html
Defences Data Security
SET OFFICER DETAILS 1
First Name
Enter Your First Name
Last Name
Enter Last Name
ID Number
Enter Id Number
Rank
Enter Rank
Aadhar Number
Enter Aadhar Number
Phone Number
Enter Phone Number
Location
Enter Location
Submit
GET OFFICER DETAILS 1
ID Number
Enter Id Number
Get Details
ENG
IN
11:43
08-07-2022

RESULT


Set Officer Details
localhost:8080/html/officerDetails_1.html
SET OFFICER DETAILS 3
Salary Package
Enter Salary Package
Number Of Medals Received
Enter Number Of Meda
Weapon Specialized In
Enter Weapon Specialized
Number Of Terrorist Neutralized
Enter Number Of Terror
Number Of Missions Involved In
Enter Number Of Missic
NumberOf Weapons Specialized In
Enter Number Of Weap
Submit
GET OFFICER DETAILS 3
ID Number
Enter Id Number
Get Details
ENG IN
11:44
08-07-2022

CONCLUSION

As discussed before, blockchain technology has the potential to radically change our way of life,
and the way we conduct military operations, both on an operational and support level. Thanks to its
decentralised and transparent nature, it could improve the decisions taken by military officials,
while enhancing outcomes for military deployments. The development of blockchain technology
offers increased data confidence and data availability that can help shape future military logistics
and planning. As we saw, the US intends to use it for secured databases, logistics and 3D printing,
similarly to China and Russia. The EU is also eager to invest in blockchain and will have the
possibility to directly fund blockchain technology related to military fields thanks to the upcoming
Horizon Europe framework and the European Defence Fund.

Future scope

So, is blockchain in the military an evolution or a revolution? An evolution would simply modify how the current military tools are used, while a revolution would dramatically change the tools themselves. Realistically speaking, at present, the evidence suggests an evolution, but not yet a “Revolution in Military Affairs” scale seachange. Blockchain will make communications more secure and facilitate military logistics. Henceforth, blockchain will strengthen and make armed forces more efficient. In the long term, blockchain in the military will be a revolution if it is well implemented and many more military applications are found, in addition to being used wisely and at affordable costs. Still, right now, we are instead witnessing a significant evolution than a real revolution of how armed forces and national DoD operate. Slowly but surely, we can agree that blockchain is becoming a game-changer for the security and efficiency of current military tools, especially if the biggest military actors start implementing it widely; as we saw above, the race between state actors in this field has already begun

Thank you!