



SMART INDIA
HACKATHON
2023

Basic Details of the Team and Problem Statement

Ministry/Organization Name/Student Innovation:
Government of Jammu and Kashmir

PS Code: SIH1355

Problem Statement Title: Developing solutions to effective market linkage and promotion of One District One Product.

Team Name: Syntax Sentinels

Team Leader Name: Subhradeep Pal

Institute Code (AISHE): C-6286

Institute Name: Meghnad Saha Institute Of Technology

Theme Name: Heritage & Culture

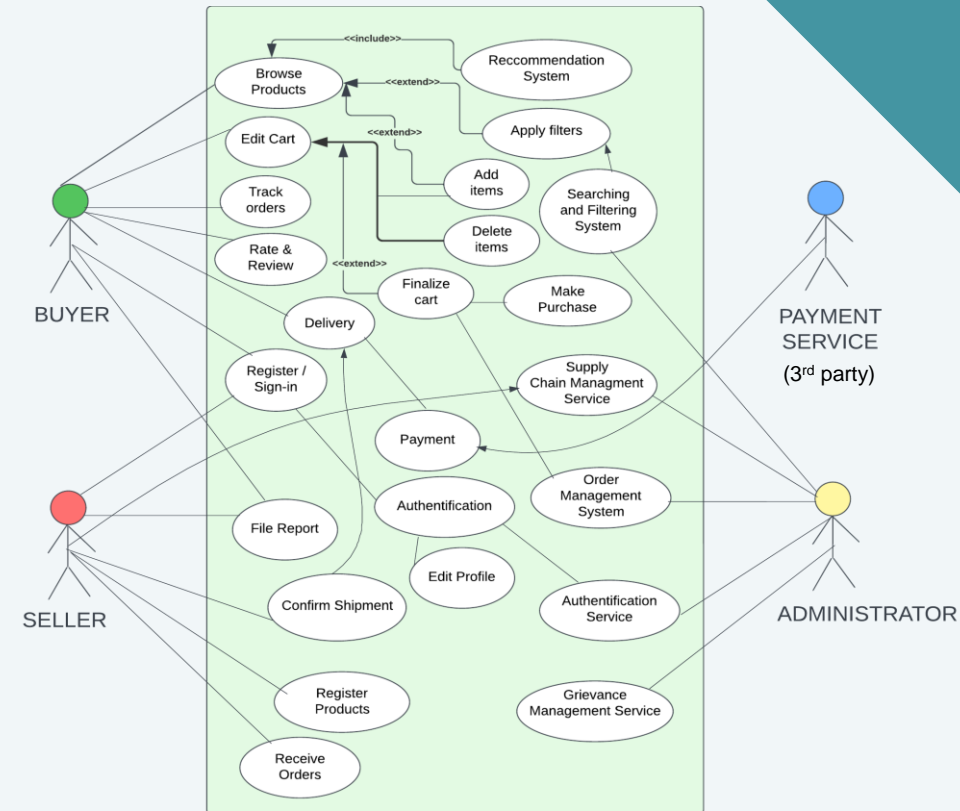
Idea/Approach Details

Idea/Solution/Prototype

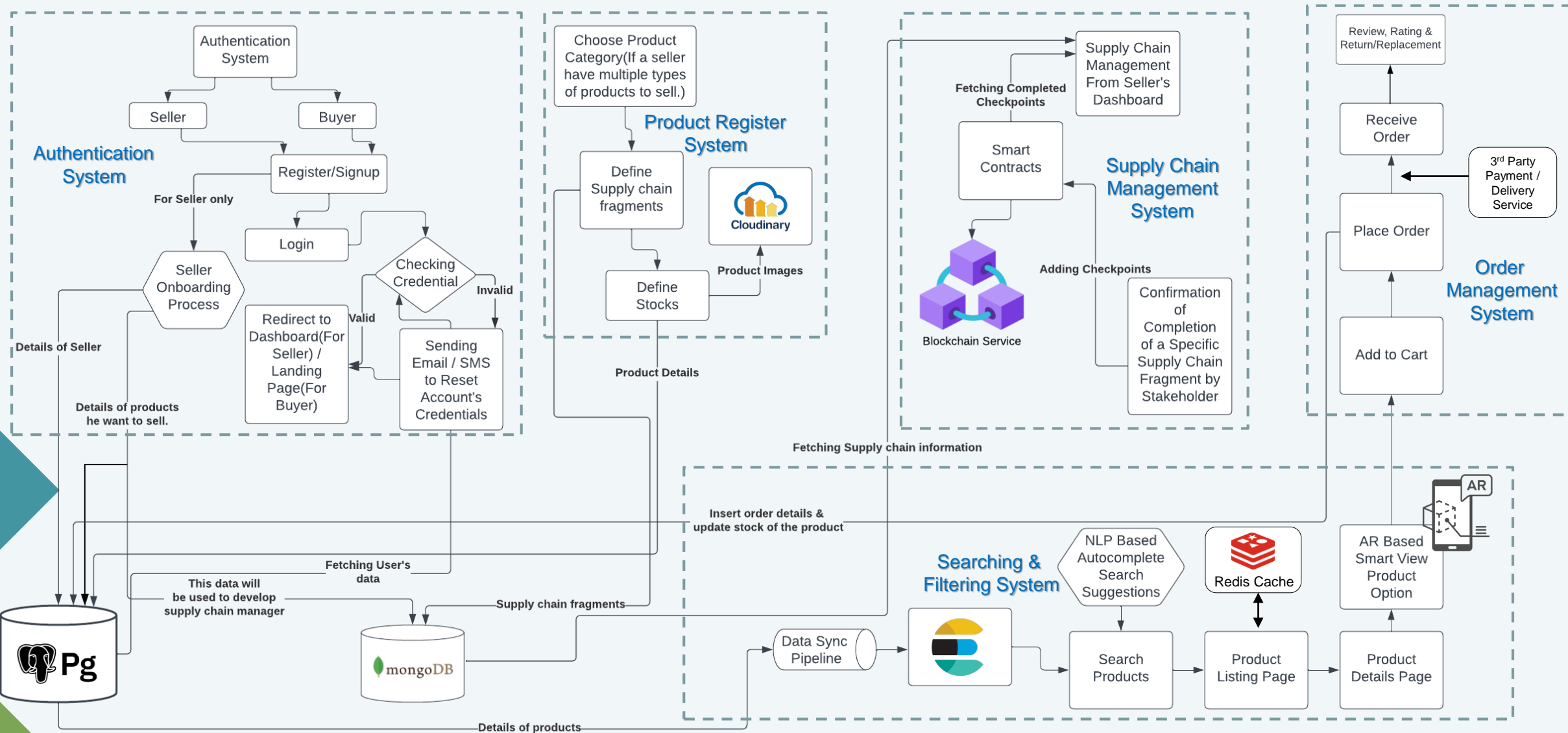
In response to the Govt. of Jammu and Kashmir's challenges, our solution strategically addresses supply chain issues for the ODOP scheme, emphasizing improved reachability, transparency, and traceability through advanced technology.

- We've implemented **blockchain** technology to ensure **transparency and traceability** by recording each checkpoint in the supply chain, reducing the risk of fraud.
- Our solution provides a user-friendly online marketplace, serving as a central hub for product showcasing and sales, effectively addressing the reachability challenge for all stakeholders.
- One standout feature of our solution is the immersive **Augmented Reality (AR)** shopping experience, which transforms how customers interact with products, and creates memorable shopping journeys.
- Our solution features a **robust recommendation engine** powered by **Machine Learning**, providing personalized product suggestions for a tailored shopping experience.
- We've integrated **multilingual chatbot** and translation tools for smooth user interaction, eliminating language barriers and enabling effortless communication.
- Our solution offers detailed monitoring tools for government oversight and includes a **Grievance Redressal Cell** for quick user issue resolution.

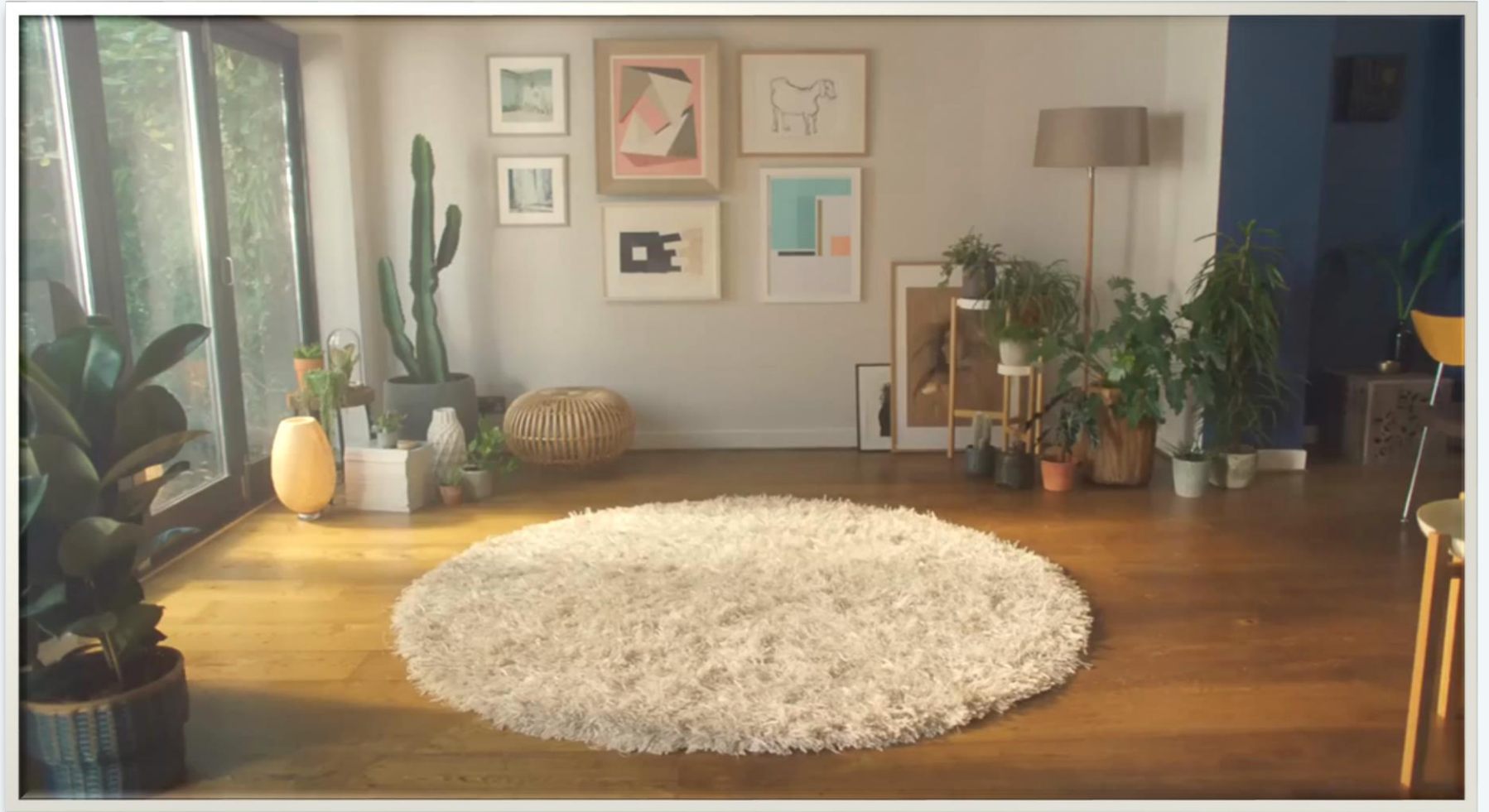
Use Cases Diagram



Data Flow Diagram

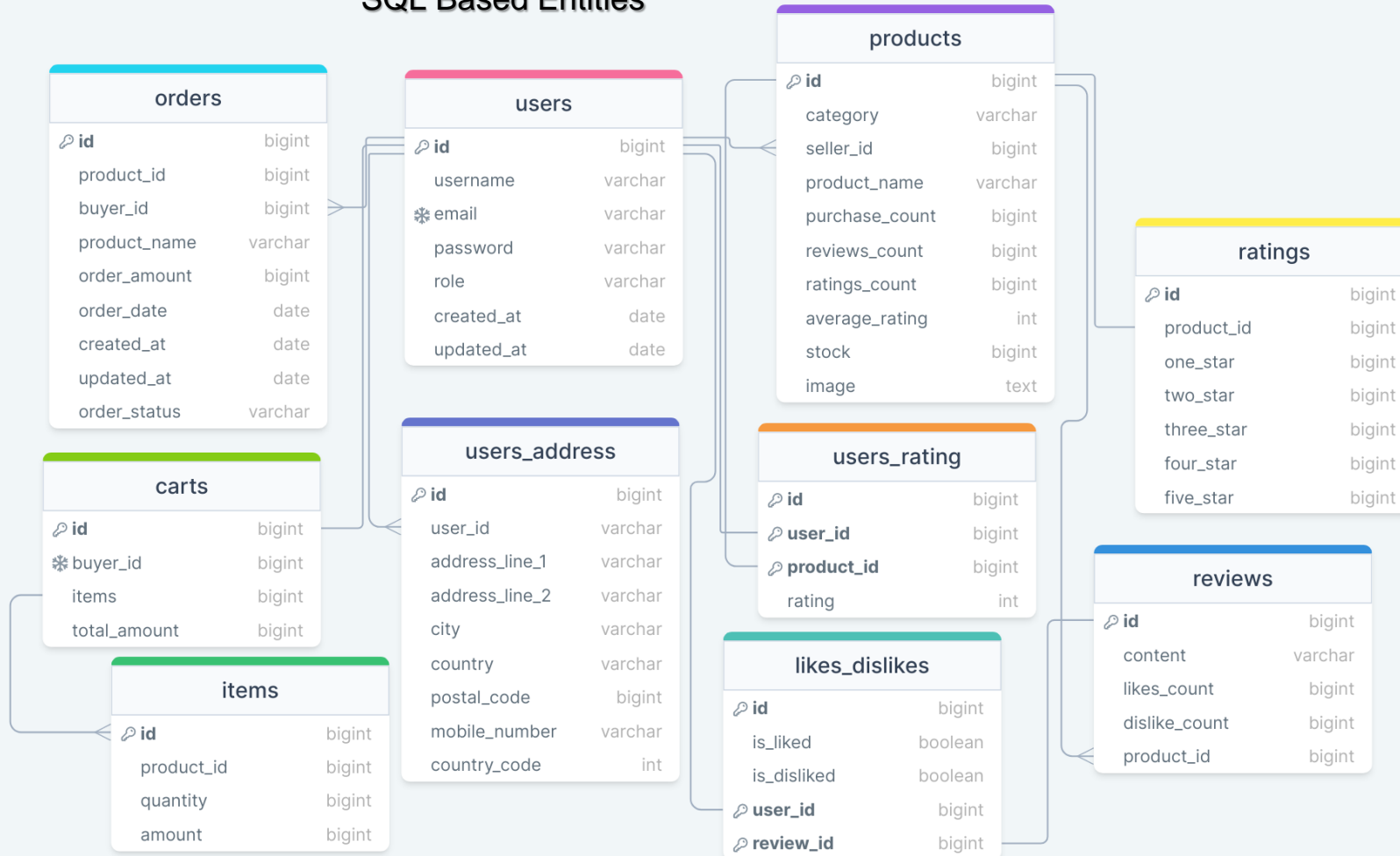


AR Based Smart Product View

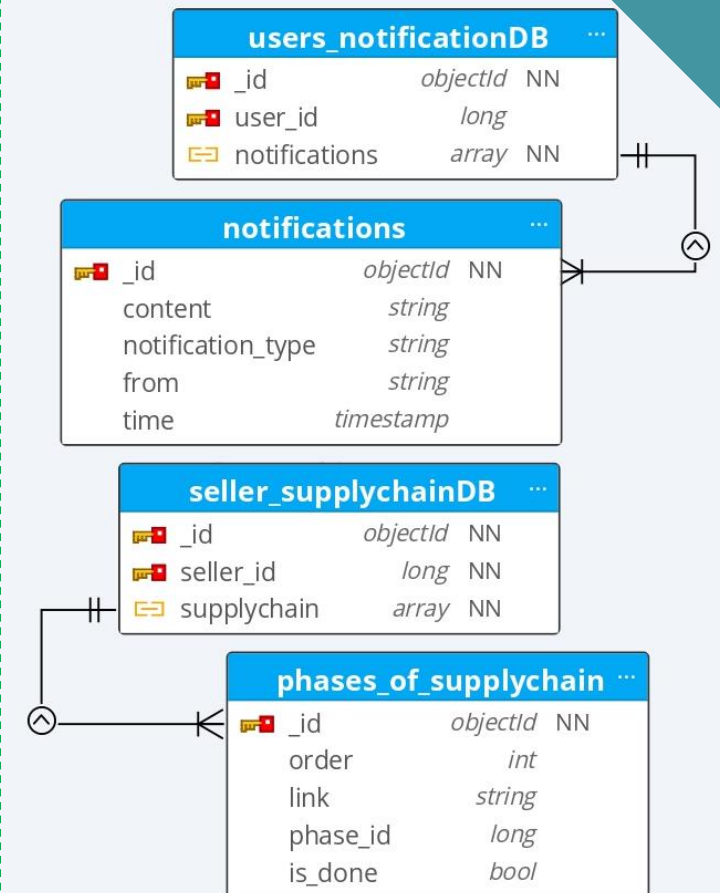


Database Design

SQL Based Entities



NO-SQL Based Entities



Technology stack & Dependencies

Frontend Technologies



Backend Technologies & Security Frameworks



Databases, ORM & Search Engine



AI/ML Tools & Frameworks



Web Servers, Containerization, CI/CD & Blockchain



Python@3.10



Java@17



Node Js@18.14



Spring Boot@2.7



Redis@6.2

IDEs



Spring Tools

4



Visual Studio Code

Team Structure

Mentor



Prof.(Dr.) Sudip Dogra

Specialization: RFID,
Advanced Communication,
Embedded systems, IOT, AI/ML
(25 Years of Experience)

Team Leader



Subhradeep Pal

B.Tech
ECE 4th Year

Blockchain



**Aryadeep
Chakraborty**
B.Tech
ECE 4th Year

AI/ML



Shubhojit Halder
B.Tech
ECE 4th Year



Deblina Mandal
B.Tech
CSE 4th Year

Database Administration



Subhradeep Pal
B.Tech
ECE 4th Year

Frontend Development



Md Safiul Haque
B.Tech
ECE 3rd Year



Maurakshi Banerjee
B.Tech
ECE 3rd Year



Deblina Mandal
B.Tech
CSE 4th Year

Backend Development



Subhradeep Pal
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Aryadeep Chakraborty
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Md Safiul Haque
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ECE 3rd Year