WEEK 1 TEMPLATE: Project Idea Finalization & Team Registration

Section A – Group Information & Monitoring Log

Field	**Details**
Week	1
Milestone	Project Idea Finalization & Team Registration
Group ID / Team Name	1
Student Names, Roll Numbers, Mobile No. and Email ID:	1. Kshitij Bhardwaj (2210991819) kshitij1819.be22@chitkara.edu.in 2. Manya Sharma (2210991901) manya1901.be22@chitkara.edu.in 3.Kumar Garg (2210991820) kumar1820.be22@chitkara.edu.in 4. Lakshay Kumar (2210991841) lakshay1841.be22@chitkara.edu.in
Project Supervisor/ Guide Name with email and Mobile Number	Mr. Shyam Goyal
Initial Comments by Guide (if any)	
Guide Approval	✓ Approved ☐ Revisions Needed
Resubmission Date (if any)	

Section B – Project Idea Submission (To be filled by Student Team)

Field	**Student Input**

1. Domain/Field	*Web, devops, ai*
2. Project Title	*Obrix*
3. Problem Statement	*A centralized exchange platform to allow users to trade virtual assets securely, with DevOps infrastructure and integrated AI for spam/fraud detection.*
4. Inputs	*Users interacting via the frontend app to place trades (buy/sell orders), authenticate, manage wallets, and view balances.*
5. Outputs	- Trade confirmations - Updated user balances - Order book updates - Spam alerts for flagged orders - Admin dashboard metrics
6. Functionalities (Minimum 6)	1. User authentication and registration 2. Placing and canceling buy/sell orders 3. Real-time order matching engine 4. Wallet and balance management 5. ML-based spam/fraud detection for orders 6. Admin dashboard with system metrics and flagged activity
7. Use Cases	*1. Startup Launching Their Own Exchange* *Scenario: A fintech startup wants to launch a lightweight, region-specific crypto or digital asset exchange without relying on third-party platforms like Binance or Coinbase.* *2. Companies Needing Internal Token Exchange* *Scenario: A large tech company introduces internal tokens or credits for team gamification or internal reward systems.* *Admins use the dashboard to manage users and ensure fair*

	usage. *🌍 3. Educational Platforms or Hackathons* *Scenario: A coding bootcamp, blockchain training program, or hackathon wants to teach participants how trading platforms work.* *💼 4. White-Label Exchange Service* *Scenario: A developer or agency wants to sell exchange software to clients under their own branding.*
8. Tools & Technologies	*- Languages: Go (backend), Python (ML), JavaScript/TypeScript (frontend)* *- Libraries: Gorilla Mux or Fiber (Go), FastAPI (Python), React + Tailwind (frontend)* *- Frameworks:Next.js, Docker, Kubernetes, Helm* *- APIs: REST & gRPC, Prometheus for metrics* *- DBs: PostgreSQL, Redis* *- CI/CD: GitHub Actions + ArgoCD* *- Monitoring: Prometheus + Grafana* *- IDE: VS Code*
9. Expected Team Roles (follow same order as per Student Names & Roll Numbers)	Kshitij Bharwaj (2210991819) - Backend and infra Manya sharma (2210991901) - Frontend and infra Kumar Garg (2210991820) - Monitoring infra Lakshay Kumar (2210991841) - grafna deployment
10. Methodology	*The system follows a client-server architecture with REST/gRPC APIs. Order spam detection is handled using a supervised machine learning model deployed as a microservice. Services are containerized and deployed using Kubernetes, following modern DevOps practices with continuous integration and monitoring.*

Faculty Feedback / Notes

(To be filled during weekly review session or submitted in shared tracker)

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