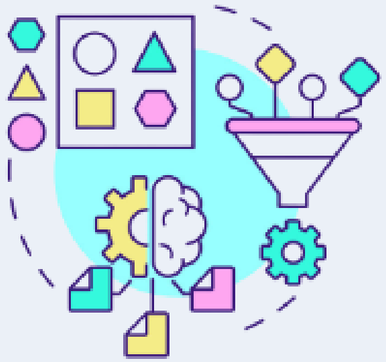
Basic Details of Team and Problem Statement

MINDSPARK'24
VISION FUTURA : THE EDGE OF TOMORROW

FINTECH PROBLEM STATEMENT 2

Challenge: Create an algorithm using ML/AI for analyzing loan applicant data to identify patterns that indicate the likelihood of default. The consumer finance company wants to minimize risks and losses from loans by better understanding how customer and loan attributes influence the chance of defaults. The analysis should use EDA techniques to determine which variables are strong predictors of default so that high-risk applicants can be denied loans or given higher interest rates to reduce credit losses from defaults.



Team Name: Team KnapSack

Team Members: Atharva Kamtalwar
Manthan Barhate
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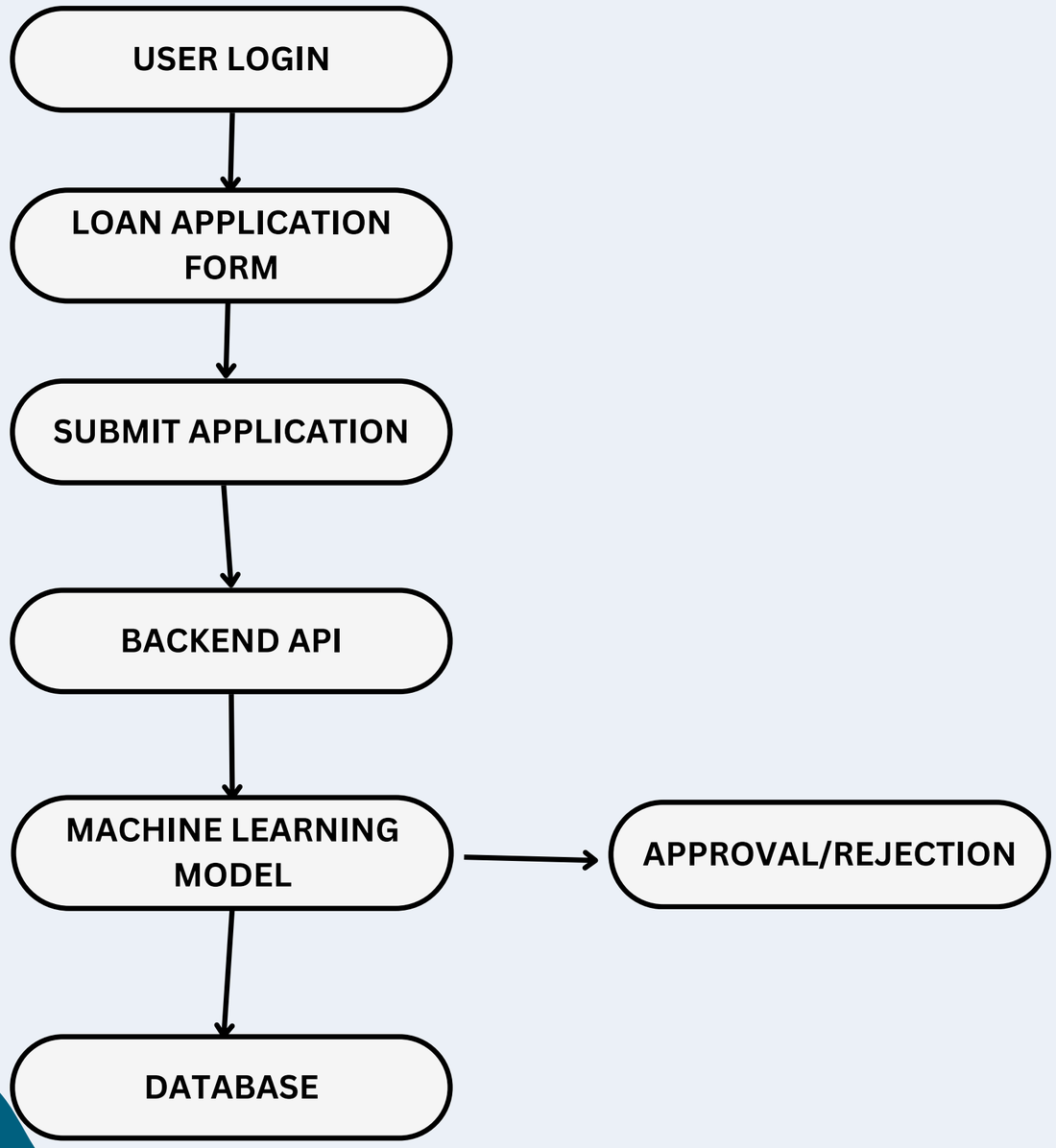
Flow Diagram



1. **Architecture:**
   - **Frontend: User interfaces built with React and styled using Tailwind CSS.**
   - **Backend: Node.js and Express for APIs, Prisma for PostgreSQL ORM.**
   - **ML Algorithm: Implemented in Python using FastAPI**
2. **Key Features:**
   - **User authentication (registration and login)**
   - **Loan application submission form**
   - **Integration with ML model for application processing**
   - **Persistent data storage with PostgreSQL**
   - **RESTful APIs for frontend-backend communication**

Future Improvements

1. **Implement OCR:** Use Gemini to extract data from documents.
2. **Upgrade ML Models:** Enhance accuracy with advanced algorithms.
3. **Improve UX:** Add real-time notifications and a user dashboard.
4. **Create Analytics Dashboard:** Monitor metrics and generate reports.
5. **Enhance Security:** Strengthen encryption and add two-factor authentication.