BCSE301P Software Engineering Lab

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Topic: AI-Powered Shopping System

Aim:

- Develop an AI-powered shopping system to assist online sellers in offering personalized product recommendations and real-time price tracking.

- Enhance customer satisfaction and boost sales by providing a more personalized and efficient shopping experience.

Scope:

- Utilize Python for building AI algorithms.

- Implement ReactJS for the frontend development.

- Employ a MySQL database to store product and customer data.

- Integrate TensorFlow or PyTorch for machine learning models.

Tools:

1. Python Programming Language:

- Used for developing AI algorithms that power personalized product recommendations.

- Provides flexibility and a wide range of libraries suitable for machine learning applications.

2. ReactJS:

- Chosen for frontend development to create a responsive and interactive user interface.

- Enables the development of a dynamic and user-friendly shopping platform.

3. MySQL Database:

- Employed for storing product and customer data securely.

- Facilitates efficient data retrieval and management for the shopping system.

Activities:

1. Customer-Facing Features:

- Personalized Product Recommendations

- Real-Time Price Tracking

- User Registration and Profile Creation

- Shopping Cart Management

2. Seller-Facing Features:

- Product Management (Add, Edit, Delete)

- Order Processing and Management

- Analytics Dashboard for Sales Performance

3. General Features:

- Authentication and Authorization

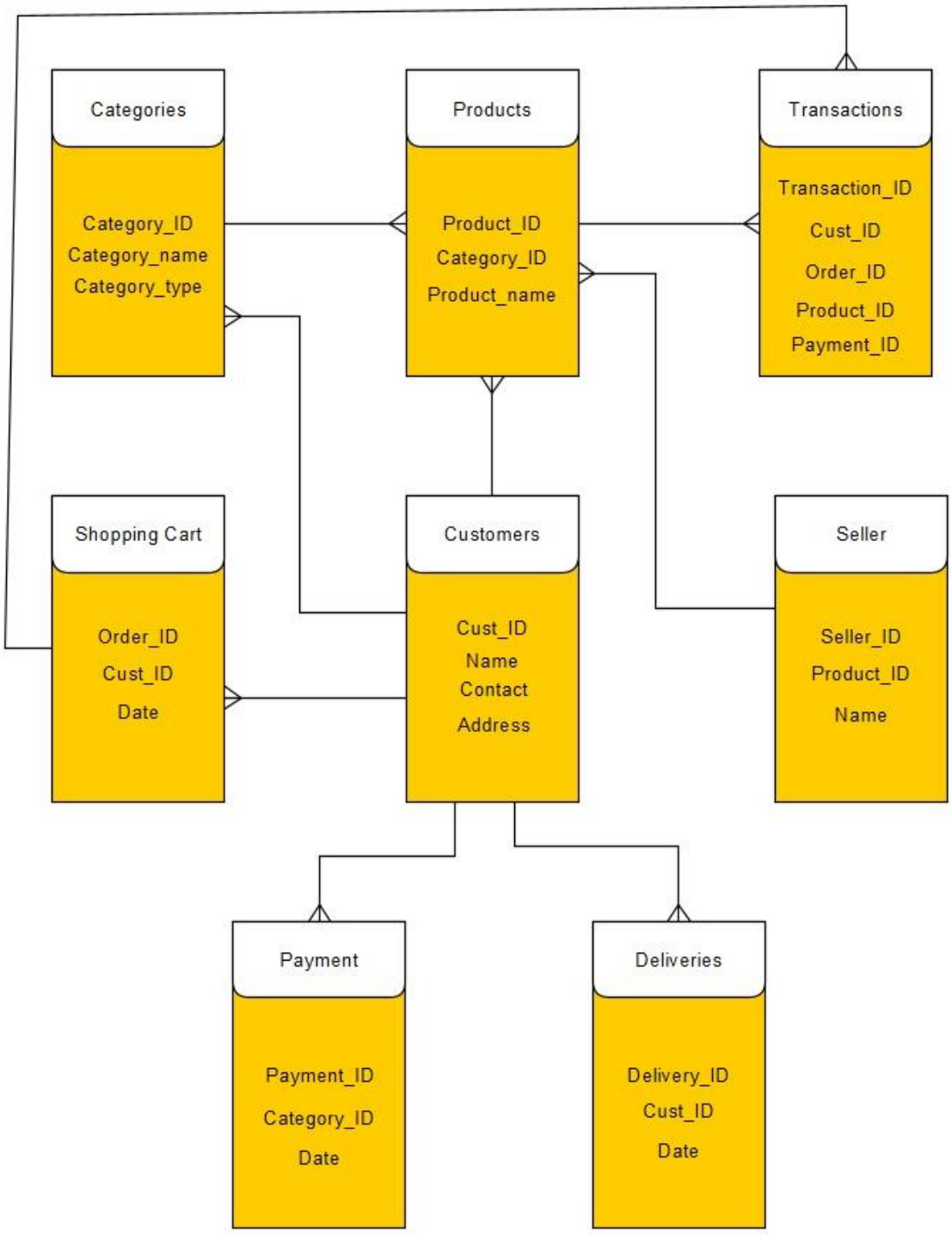
- Notifications (for personalized recommendations, price updates, etc.)

- Search and Filtering Options

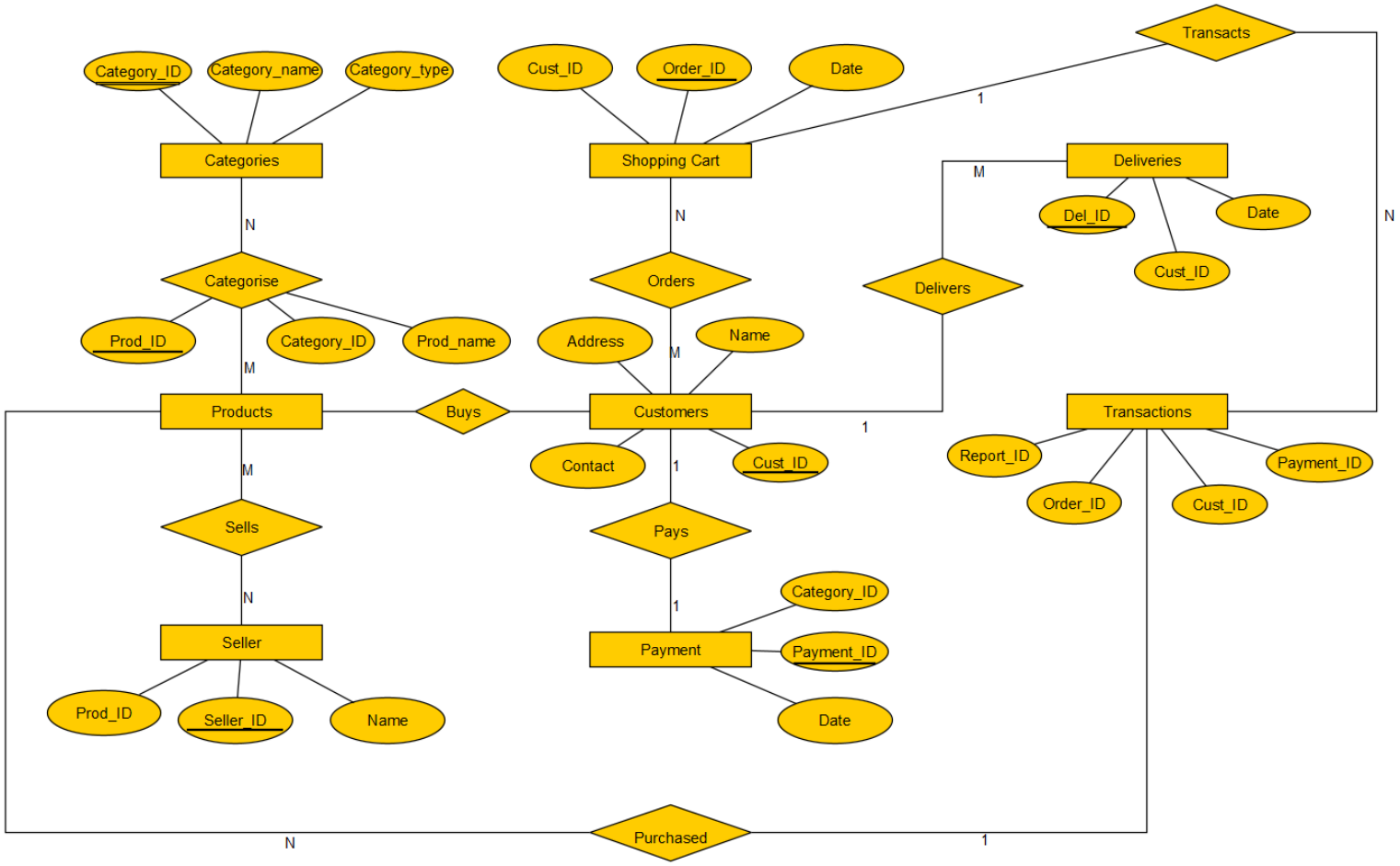
- Seamless Integration of AI Algorithms

- Responsive Frontend Design

Relational Schema:



ER Diagram: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Work-Breakdown Structure: