

# Graduation project proposal



---

Faculty of Computer Sciences and Informatics  
كلية العلوم الحاسوبية والمعلوماتية



Name : Ahmad Alkhateeb -- -- -- Mahmoud Hadib

Supervisor : Dr. Moatasem Al-Samadi

Project proposal : AI-Based E-commerce System

# Graduation project proposal

An ecommerce system that uses artificial intelligence to provide a unique personalized shopping experience with unconventional features not present in traditional systems

## Proposed Innovative Features

### 1. AI Shopping Assistant

- A chatbot that understands natural language requests.
- Suggests products based on the customers lifestyle (e.g Im looking for a birthday gift for my wife )
- Learns from user interactions to improve recommendations

### 2. Smart Multi-dimensional Recommendations

- A recommendation system that doesnt rely solely on purchase history
- Takes into account weather global events and mood (based on review text analysis)
- Integrates with social media to understand the customers interests

### 3. Automatic Product Description Generation

- A system that generates detailed product descriptions from images
- Adjusts descriptions based on the site's audience (e.g. age group geographical location)

### 4. Predictive Inventory Management

- Predict required quantities based on market trends.
- Analyzes social media to predict which products will be trending.

### 5. Dynamic Smart Pricing

- Adjusts prices based on demand, stock, and user behavior.
- Personalized offers for each customer based on their purchasing ability.

## AI Technologies

- **TensorFlow Pytorch** for recommendation models
- **NLP (Natural Language Processing)** for review and request analysis
- **Vision AI** for image based product description generation