A Bartering System Web Application

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Presentation Overview

1. Project Overview
   a. Background
   b. Motivation
   c. Goals
2. Development
3. Demo
4. Future Enhancements
Overview: Background

❖ What is the Trading Post?
➢ A bartering system
   ■ Trade goods and services
➢ A web application
   ■ MEAN Stack
Overview: Motivation

Why do we need it?

- Does not involve monetary exchange
- Encourages reuse
- Unpredictability of economic behavior
- Increase communication in local communities
Overview: Goals

- Provide an alternative to the monetary system
- Strengthen bonds in local communities
- Facilitate trade through the web application
  - Provides a means to trade
  - Offers convenience
Development

❖ Steps taken
  ➢ Features
  ➢ Visual design
  ➢ Software framework
  ➢ Design pattern
  ➢ Database design

❖ Challenges
Development: **Features**

- Sort and search for goods and services
- Browse most recent posts
- Create an account
- Make trades with other users
- Fill out a profile, containing the user’s:
  - wishlist, inventory, and trades
Development: Visual Design

- Name origin
- Logo design
- Color scheme
- Layout overview
- Tools used
Development: Software framework

- Front-end and back-end JavaScript
- MEAN Stack
  - MongoDB (Database)
  - ExpressJS (Server)
  - AngularJS (Client)
  - NodeJS (Server-side JS)
Development: Design pattern

- Model-View-Controller (MVC) for modularity
  - The model
    - MongoDB
  - The view
    - HTML, AngularJS, EJS
  - The controller
    - ExpressJS, AngularJS
    - Control data flow between view and model
Development: Database design

- MongoDB
  - A back-end, no SQL database
  - Uses JSON-like documents as opposed to tables (called "collections" here)
  - Each field in a document has corresponding key/value pairs
Development:
Database design
Development: Challenges and Solutions

- Learning a new framework
- Implementing sessions
- Designing
- Coordinating with team members
Demo
Future Enhancements

 FEATURES to completely implement:

➢ Messaging
➢ User feedback score
   ■ Rate your trades with other users
➢ Show trade history
➢ Show recent activity on profile
➢ Check for inappropriate content
   ■ Text
   ■ Images
Questions? Comments?