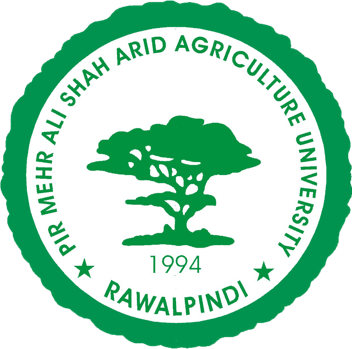
University Institute of Information Technology

PMAS-Arid Agriculture University, Rawalpindi



Project Proposal

For

**AI ShopConnect**

**Submitted By:**

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Submission Date (24-August-2023)

Version 1.0

Project ID: \_\_\_\_\_\_\_\_\_\_\_

(ID will be assigned by coordinator)

* **Project category**

**A-**Desktop Application/Information System **🞏** **B-**Problem Solving and AI **🞏**

**C-**Web Application/Web Application based Information System. **🞏 D-**Simulation & Modeling **🞏**

**E-**Smartphone Application **🞏 F-**Smartphone Game **🞏**

**G-**Image Processing **🞏** **H-**Networks **🞏**

**I-** Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **🞏**

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table of contents

[1. Introduction 4](#_Toc440747757)

[2. Literature Review 4](#_Toc440747758)

3. Problem Statement 5

[4. Problem Solution 5](#_Toc440747760)

[5. Advantages/Benefits of proposed system 6](#_Toc440747761)

[6. Scope 6](#_Toc440747762)

[7. Software Methodology 5](#_Toc440747763)

[8. Tools and Technologies 5](#_Toc440747764)

[9. Concepts 5](#_Toc440747765)

[10. Intended Users 5](#_Toc440747766)

[11. Mockups 6](#_Toc440747767)

[12. Conclusion 6](#_Toc440747768)

## Introduction

The project "AI ShopConnect" represents a pivotal advancement in the e-commerce realm, forging seamless connections between sellers and buyers. With a focus on fostering collaboration and streamlining interactions, this app addresses prevalent challenges within the existing e-commerce landscape. Notably, the platform introduces innovative features, including seller-to-seller connections and item borrowing during stockouts. Customers are empowered through personalized experiences like AI-driven product recommendations, real-time order tracking, location mapping, and an Image-Based Product Search Capability. By amalgamating these elements, the project aims to revolutionize the e-commerce experience, providing users with an enhanced and dynamic platform that redefines the buyer-seller relationship.

## Literature Review

1. **Daraz:**

Daraz is a popular e-commerce platform that facilitates buying and selling in various categories. While it offers a wide range of products, it lacks an effective mechanism for seamless connections between sellers. The absence of a direct seller-to-seller interaction restricts collaboration and resource sharing. Additionally, Daraz doesn't provide personalized bargaining options, limiting buyers' control over pricing negotiations.

1. **Ali Express:**

Ali Express is a global online retail platform, renowned for its vast product selection. However, the absence of a personalized bargaining experience hinders buyers from negotiating prices directly with sellers. Furthermore, while it offers product recommendations, these suggestions may not be tailored to individual customer interests, leading to suboptimal user experiences.

1. **PriceOye:**

PriceOye is a platform that focuses on comparing prices of electronic products. However, it lacks features like real-time order tracking and location mapping, which can leave customers uncertain about the status of their purchases. Additionally, PriceOye doesn't provide a comprehensive solution for fostering connections between sellers or offering personalized recommendations.

## Benchmarking

Table 1.0: Comparison of Features in E-commerce Platforms

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Features** | **Daraz.pk** | **Ali** **Express** | **PriceOye** | **Ai** **ShopConnect** |
| Seller to seller connection | No | Limited | No | Yes |
| Borrowing items | No | No | No | Yes |
| Image based product search | No | No | No | Yes |
| AI-Powered Personalized Recommendations | Limited | Limited | Limited | Yes |
| Real Time Order Tracking | Yes | Yes | Yes | Yes |
| Delivery Services | Yes | Yes | Yes | Yes |
| Enhanced Customer Support | Yes | Yes | Yes | Yes |
| Personalised bargaining Experience | No | No | No | Yes |
| Shopping Cart | Yes | Yes | Yes | Yes |
| AI-Powered trusted seller recommendations | No | No | No | Yes |

## Problem Statement

In today's dynamic e-commerce landscape, several challenges hinder smooth interactions between sellers and buyers on platforms like Daraz, Ali Express, and PriceOye. These platforms lack crucial features for seller collaboration, personalized bargaining, and effective customer support. Sellers are limited in connecting with each other, missing out on opportunities for resource sharing. When a seller runs out of stock for an item, buyers struggle to find alternatives, and the absence of direct negotiation options hampers their ability to secure items at preferred prices. Moreover, existing platforms fall short in verifying product authenticity, causing uncertainty among buyers about purchase quality.

To tackle these issues, "AI ShopConnect" will introduce innovative features, including seller-to-seller connections, personalized bargaining, and AI-driven recommendations tailored to individual preferences. By integrating image-based product search, we address a gap present in most platforms. Additionally, real-time order tracking, location mapping, and seamless shopping cart integration will offer transparency and efficiency. While similar systems exist, "AI ShopConnect" reimagines these features to meet modern expectations.

Re-implementing this system aids our learning by honing skills in software development, AI algorithms, image processing, user experience design, and teamwork. The project's 15-sentence synopsis underscores its role in revolutionizing e-commerce and enhancing user experiences, both for buyers and sellers.

## Problem Solution

The "AI ShopConnect" project offers an extensive solution to the limitations of current e-commerce platforms. By harnessing advanced technologies, the platform addresses challenges through seller-to-seller connections, enabling resource sharing and knowledge exchange, thereby enhancing collaboration. To ensure uninterrupted service, the project facilitates item borrowing during stockouts. The innovative Image-Based Product Search Capability redefines product discovery by leveraging AI algorithms that analyze images, simplifying the search process.

The integration of AI-driven algorithms powers personalized product recommendations and trusted seller suggestions, elevating customer satisfaction and confidence. The platform enhances transparency through real-time order tracking, location mapping, and seamless shopping cart integration. It also integrates renowned delivery services, ensuring reliable shipping options. Through personalized bargaining, customers gain the ability to directly negotiate prices with sellers.

The provision of enhanced customer support, featuring a rating and review system, fosters engagement and feedback, refining the buyer-seller interaction. In culmination, the "AI ShopConnect" project reshapes the e-commerce landscape, ushering in a more dynamic, collaborative, and efficient platform that adeptly addresses the evolving needs of both buyers and sellers.

## Advantages/Benefits of proposed system

* **Enhanced Seller Collaboration:** AI ShopConnect facilitates connections between sellers, enabling them to collaborate, share resources, and even borrow items from each other during stockouts.
* **Effortless Product Discovery:** With image-based search capability, customers can find products effortlessly by simply using images, making shopping more intuitive and enjoyable.
* **Trusted Seller Recommendations:** Our AI-driven suggestions ensure that customers are connected with reliable sellers, boosting their confidence in their purchases.
* **Personalized Shopping Experience:** AI ShopConnect offers tailored product recommendations based on individual customer interests, making each shopping journey unique and exciting.
* **Transparent Order Experience:** Real-time order tracking and location mapping give customers clear insights into the status and location of their orders, ensuring a smooth and informed purchasing process.
* **Empowered Bargaining:** Customers can directly negotiate prices with sellers, giving them more control over their shopping choices and allowing them to get the best deals.

## Scope

The scope of the "AI ShopConnect" project encompasses the development of a comprehensive e-commerce platform that redefines the buyer-seller relationship. The system will include features such as seller-to-seller connections, item borrowing during stockouts, image-based product search capability, AI-powered personalized product recommendations, trusted seller suggestions, real-time order tracking, location mapping, seamless shopping cart integration, delivery services from reputable providers, personalized bargaining experiences, and enhanced customer support with a rating and review system. The platform will facilitate seamless collaboration between sellers, enabling them to share resources, collaborate on strategies, and even borrow items to ensure uninterrupted customer service. The innovative image-based product search capability will empower users to find products effortlessly by simply using images. AI algorithms will fuel personalized recommendations, ensuring each customer's unique preferences are met, while real-time order tracking and location mapping will provide transparency. The system's intuitive interface will allow buyers to directly negotiate prices with sellers, enhancing their shopping experience. Moreover, enhanced customer support, including a rating and review system, will foster engagement and feedback. The project's scope explicitly defines these features, ensuring a robust and transformative e-commerce platform that caters to the evolving needs of both buyers and sellers.The innovative bargaining feature empowers customers/buyers to negotiate the prices directly with sellers to enhancing the shopping experience.

Additionally, a borrow feature allows sellers to request stock from connected shops, ensuring uninterrupted customer service.

Secure payment options and delivery integration provide customers with a reliable and convenient shopping experience while facilitating business growth for sellers.

**Modules of the project:**

Write down the modules of the proposed project. Don’t forget to mention special/new features. Briefly explain your one module in 6 to 8 sentences.

**Explanation of a Module:**

**Module** is a section of a program that performs a particular task. **Programs** consist of [*modules*](http://www.webopedia.com/TERM/M/module.html), each of which contains one or more routines. The term ***routine*** is synonymous with *procedure*, *function*, and *subroutine.*

**Examples:**

Enterprise resource planning (ERP) software - is comprised of several large modules (for example, finance, supply chain and payroll, etc.), which may be implemented with little or no customization.

A classic example of a module-based application is Microsoft Word, which contains modules incorporated from Microsoft Paint that help users create drawings or figures.

## Software Methodology.

The project will follow an Agile software development methodology, allowing iterative development and responsiveness to evolving requirements. Agile is chosen due to its flexibility, adaptability, and ability to incorporate user feedback throughout the development process.

## Tools and Technologies

|  |  |  |
| --- | --- | --- |
| **Tools**  **And**  **Technologies** | **Tools** | **Version** |
| MS Visual Studio | 2013 |
| MS SQL Server  Figma | 2012 |
| Adobe Photoshop | CSC 6 |
| MS Word | 2013 |
| MS Power Point  Android studio | 2013 |
|  |  |
|  |  |
| **Technology** | **Version** |
| Html  CSS  JavaScript  React native | 5 |
| MongoDB |  |
|  |  |

## Concepts

* AI-based recommendation algorithms.
* Personalized negotiation mechanisms
* Real-time tracking and mapping
* Image Processing

## Intended Users

1. **Seller**

* Seller can connect with other sellers.
* Borrow items from another seller if the items are out of stock.
* Seller can share the resources with other sellers.

1. **Buyer**

* Buyer can buy the items from the seller and directly communicate with seller.
* Buyer can bargain the prices directly with seller.
* Buyer can recommend the seller to a friend.
* Buyer can also rate the seller and use customer services.

1. **Visitors**

* Visitors can only visit the application.
* Check the sales and prices of different products.
* Check the reviews of different buyers.
* Check the ratings of sellers.

## Mockups

Insert minimum four (recommended six) mockups (screen shots) which show the major modules mentioned in the scope section of the document. Do not include mockups for Login, Signup, Forgot Password, Contact Us, About Us etc. If the project is a Web or a Smartphone Application then include at-least three mockups from each part of the project.

## Timeline

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## Conclusion

The “Ai ShopConnect” project aims to bridge the gap in existing e-commerce platforms by providing a comprehensive solution for seller collaboration, personalized bargaining, and AI-driven recommendations. Through the implementation of this project, we anticipate a transformative impact on the shopping experience for both sellers and buyers.

## References

1. **Daraz Pakistan:** <https://www.daraz.pk/>
2. **AliExpress:** <https://www.aliexpress.com/>
3. **PriceOye:** <https://priceoye.pk/>