Scope Document for Marketplace
Web and Mobile App Hosting
(Multi-Vendor B2B/B2C eCommerce System)

Industrial Development Board

Background

Industrial Development Board of Ceylon (IDB) has been established by the government Act No. 36, 1969. It functions under the Ministry of Industry. In terms of this Act the IDB is the Prime State Organization entrusted with the responsibility of development to the Industrial Sector. Throughout last 53 years IDB has catered mainly to the Enterprises, individuals and institutions of the industrial sector of Sri Lanka. The IDB consists of 600 employees with more than fifty operational units around the country including a dedicated staff and a network of regional and district offices covering each district. In fact, it is the only such organization within the private and government sectors of the country.

Our services include Identification of business opportunities, Quality & productivity improvement, Project feasibility studies & reports, Management, Development and Consultancy, Business Information and linkages, Product Development, Innovation & new technologies, Market development and promotion, Business counseling & Extension, Technology development & assistance, Engineering workshop and foundry facilities, Infrastructure facilities, Engineering services, Entrepreneurship development training and Provision of product specific raw materials.

IDB consists of eleven divisions through which all its activities are streamlined. They are:

Functional Divisions

- Entrepreneurship Development Division
- Engineering Services Division
- Industrial Estate Division
- Marketing Division
- Regional Development Division

- Technical Services Division
- Rubber Products Development Centre
- Leather Products Development Center

Operational Divisions

- Administration Division
- Finance Division
- Planning Division

Project Overview

The Industrial Development Board of Ceylon is embarking on a project to develop a Multi-Vendor eCommerce System that supports both B2B (Business-to-Business) and B2C (Business-to-Consumer) selling. This system will be implemented both as web and mobile application.

Project Objectives

1. **Create a Comprehensive Multi-Vendor eCommerce Platform**
    - Develop a feature-rich Multi-Vendor eCommerce system that enables multiple sellers to register, list, and manage their products within a unified platform.
    - Implement robust seller management capabilities, including product catalog management, order processing, and reporting tools.
    - Ensure seamless integration of seller storefronts within the broader eCommerce ecosystem.
2. **Facilitate B2B and B2C Transactions**
    - Enable a versatile Business-to-Business-Consumer (B2B2C) model, allowing businesses to engage with both other businesses and individual customers.
    - Provide a flexible system that can seamlessly transition between B2B and B2C modes to adapt to market dynamics and business needs.
3. **Deliver a User-Friendly and Responsive Experience**

- Develop a user interface (UI) and user experience (UX) design that is intuitive and easy to navigate, ensuring a positive shopping experience for customers and efficient operations for sellers.
- Prioritize mobile responsiveness to cater to a wide range of devices, including desktops, laptops, smartphones, and tablets.

4. **Foster Economic Growth and Innovation**
    - Create a dynamic Multi-Vendor eCommerce platform that supports local businesses, entrepreneurs, and artisans, empowering them to expand their reach and contribute to the economic development of Sri Lanka.
    - Encourage innovation within the local business community by providing a digital platform for showcasing and selling their products to a broader audience.
5. **Strengthen Industrial Development Initiatives**
    - Align the project with the strategic goals of the Industrial Development Board, emphasizing the growth and sustainability of industries within Sri Lanka.
    - Leverage the eCommerce platform to support existing industries and encourage the emergence of new ones, ultimately contributing to job creation and industrial development.

Cloud Hosting

1. Server Specification

Consider using a reputable cloud hosting provider like Amazon Web Services (AWS), Microsoft Azure, or Google Cloud Platform (GCP), Linode or A2 Hosting. These providers offer scalability and global reach to serve both local and international users effectively.

2. Server Configuration

- Virtual Machines (VMs): Use virtual machines for scalability and resource isolation.
- Load Balancer: Implement a load balancer to distribute traffic evenly across multiple VM instances for high availability and performance.
- CPU: Start with a minimum of 4 vCPUs for each VM instance and adjust based on traffic and resource requirements.
- RAM: A minimum of 16 GB RAM for each VM instance, with the ability to scale up as needed.
- Solid-State Drives (SSD): Use SSDs for fast data retrieval and lower latency.
- Storage Scaling: Implement scalable storage solutions like AWS EBS or Azure Disk Storage, allowing you to increase storage capacity as your data grows.
- Allocate at least 1TB of storage per VM instance.
- Regularly back up data and configurations.
- Implement a load balancer for distributing traffic to VM instances.
- Ensure it can handle a high volume of concurrent connections.
- High-performance RDBMS: Amazon RDS, Azure SQL Database, or Google Cloud SQL.
- Configure network-level firewalls and security groups to restrict access.
- Implement a Web Application Firewall (WAF) for application security.
- Use SSL/TLS certificates to encrypt data in transit.
- Implement monitoring tools like AWS CloudWatch, Azure Monitor, or Google Cloud Monitoring.
- Monitor server performance, application health, and security.

Server Configuration Task	Can Perform Task?
Use virtual machines (VMs) for scalability and isolation	
Implement a load balancer for traffic distribution	
Start with a minimum of 4 vCPUs per VM instance	
Allocate a minimum of 16 GB RAM per VM instance	
Use Solid-State Drives (SSDs) for fast data retrieval	
Implement scalable storage solutions (e.g., AWS EBS, Azure Disk Storage)	
Allocate at least 1TB of storage per VM instance	
Regularly back up data and configurations	
Ensure the load balancer can handle high concurrent connections	

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