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A Web-Based Agricultural E-Commerce System

for Direct Farmer-to-Consumer Sales

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Abstract: The agricultural sector remains challenged by the exploitation of producers by middlemen, resulting in diminished farmer profit. This is a description of the design and implementation of "Farmer's E-Market," a web-enabled digital trading platform developed with the express purpose of removing the dependency on middlemen by allowing direct sales to consumers. The system was designed using a three-tier architecture, utilizing ASP.NET for the presentation layer, C# for business logic, and Microsoft SQL Server 2015 for the database management layer. The platform also contains designated modules for farmers, buyers and administrators to manage product listings, order processing, and secure financial transactions. The implemented system delivers a useful, reliable and user-friendly e-market place that provides transparent trade, increase producer profit, and a scalable platform for digital commerce in agriculture.

Keywords: E-Agriculture, E-Marketplace, ASP.NET, SQL Server, Digital Trading Platform, Agricultural Supply Chain

