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| **BSc (Hons) Computing Course 2023/24**  **Level 6 Production Project** | | |
| **Name: Satendra Kushwaha** | **Student I.D.: 77356760** | |
| **Course:** BSc (Hons) Computing | **Supervisor’s Name:** | |
| **Final Project Individual Aim & Objectives** | | |
| **Title of my Project:**  **AgriVision:** **Advanced Systems for Modern Agriculture** | | |
| **Aim of my Project:**  The AgriVision project aims to empower rural farmers by developing an innovative mobile platform that provides direct market access, ensures fair prices for agricultural products, and reduces food wastage. By eliminating intermediaries, the app creates an open marketplace for farmers and consumers, allowing them to engage directly. AgriVision offers tailored crop recommendations based on local climate conditions and market trends, helping farmers optimize production and profitability. The project also promotes sustainable farming practices, offers educational resources, and improves logistical systems, all contributing to increased farmer incomes and the overall growth of rural economies. | | |
| **Objectives of my Project:**   * Create a Market for Groceries and Farm Products in order to Cut Down organic   Waste * Direct Consumer Access Can Boost Farmer Profits * Presenting Crop Trend Suggestions * Guidance is provided on Climate-Sensitive Crop Cultivation * Improve Agricultural Education and Knowledge * Offer easy and flexible Payment Options * Encourage the use of sustainable farming methods * Give Transactions Real-Time Location Sharing of Famers * Expand Economic Opportunities | | |
| **Specification of my Product:**  Functional activities:   |  |  | | --- | --- | | Features | Priority | | |  | | --- | | User Registration & Authentication |  |  | | --- | |  | | **M** | | Scroll System to Order | **M** | | Order Tracking | **M** | | Secure Payment System | **M** | | Trader and Consumer Registration | **M** | | Product Listing | **M** | | Costumer Call System | **S** | | Feedback & Review System | **S** | | Crop Trend Suggestions | **C** | | Climate-based Guidance | **C** | | Geolocation-based Search | **S** | | Delivery Management | **S** | | Subscription Model | **C** | | Push Notifications | **W** | | Energy-Efficient Design | **W** |   Non - Functional activities:   |  |  | | --- | --- | | Features | Priority | | Farmer Verification (KYC) | **M** | | Data Security | **M** | | Controlling Product Expiry to Maintain Freshness | **S** | | Guaranteed Customer Support | **M** | | User-Friendly Interface | **M** | | App Multitask Performance | **M** | | Multilingual Support (Nepali/English) | **S** | | Offline Mode & Data Syncing | **C** | | Scalability | **S** | | Sustainability Practices | **C** | | | |
| **Research:**  This research helps to removing a middle-men and guaranteeing fair prices for agricultural productsAgriVision Market is a mobile platform designed to close the gap between rural farmers and customers. Farmers can display their products openly on the app, and customers can explore, call with farmers, and buy things instantly. One of AgriVision most notable features is its crop recommendation tool, which helps farmers maximize their production and revenue by offering tailored recommendations based on local climate and market demand (Bhende et al., 2018). In order to guarantee on-time delivery, the platform also incorporates live location sharing, tackling problems such product spoiling and limited market accessibility (Emerald, 2023). AgriVision seeks to improve rural farmers' lives and promote sustainable agricultural practices by giving them the resources they need to make educated decisions and by establishing a direct marketplace (Alamin, 2023; KSU, 2023). In rural agricultural sectors, this strategy fosters fair trade, economic expansion, and long-term sustainability. | | |
| **Project Planning & Methodology** | | |
| **Project Planning:**    *Fig: Resource Sheet*    *Fig: Gantt Chart planning of a project*    *Fig: Task sheet that displays a project planning*    *Fig: Timeline of the project*  **Methodology:**  The goal of the AgriVision project is to develop a simple app that will help rural farmers and raise their standard of living. Research is the first step in identifying problems including crop waste, unjust pricing, and problems with market access. The app's features, which include climate-based production guidance, crop trend recommendations, direct market access, and live location sharing, are based on these findings. The development approach places a strong emphasis on dependable operation, safe payment methods, and an intuitive user experience. Frequent testing guarantees that the app satisfies practical requirements. In order to meet farmers' needs and guarantee long-term growth, the project ends with deployment and continuing updates. | | |
| **Resources** | | |
| **To successfully finalize my project, I will need the following hardware and software:**  **Software requirement:**   |  |  | | --- | --- | | Item | Source | | Vs code | Satendra Kushwaha | | Laravel | Satendra Kushwaha | | Html,css, php, java script | Satendra Kushwaha | | Flutter | Satendra Kushwaha | | MySQL database setup | Satendra Kushwaha | | Xampp | Satendra Kushwaha | | Git Hub | Satendra Kushwaha | | Google Maps API | Satendra Kushwaha | | Postman | Satendra Kushwaha | | Ms 365 | Satendra Kushwaha | | Payment Gateway | Satendra Kushwaha | | Figma, Canva | Satendra Kushwaha | | Google, W3 school, google scholar , Gmail, Google meet | Satendra Kushwaha | | Youtube | Satendra Kushwaha |   **Hardware requirements:**   |  |  | | --- | --- | | Item | Source | | Dell Vostro Laptop(Windows) | Satendra Kushwaha | | Internet | Satendra Kushwaha | | Android Device(for testing) | Satendra Kushwaha | | |
| **Human Resource** | | |
| **I am working on my Project with the following people** | | |
| **Name: Satendra Kushwaha** | **Role: Researcher/Developer**  Module Leader  Supervisor | |
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| **Initial Bibliography** | | |
| *Bhende, A., & Suryawanshi, P. (2018). Agriculture in India: Challenges and Opportunities. Journal of Rural Development, 34(2), 76-85.*  *Emerald, R. (2023). Bridging the Gap: Technology’s Role in Rural Agriculture. Agricultural Technology Review, 9(3), 110-118.*  *Alamin, M. (2023). Sustainable Agricultural Practices in Rural Economies. International Journal of Agricultural Sciences, 15(1), 56-63.*  *KSU. (2023). Climate-Sensitive Crop Cultivation: A Key to Future Agriculture. Agro-Climate Journal, 11(4), 142-151.*  *Gupta, A., & Mehta, P. (2020). E-Commerce in Agriculture: A Shift Towards Direct Market Access. Journal of AgriTech, 18(5), 200-210.*  *Smith, J. (2022). Leveraging Mobile Apps for Agricultural Growth: Case Studies and Insights. Digital Agriculture Review, 6(2), 88-95.* | | |