

Maharashtra State Board of Technical Education

Government polytechnic Solapur



DIPLOMA IN INFORMATION TECHNOLOGY (IF)2023-2024

Academic Year 2023-2024

A

Capstone Project Synopsis Report on

Farmers Export: Web Application

Group Members

Roll No	Name of the Group Members	Enrolment No	Exam Seat No
<u>15</u>	<u>Dharashivkar Aditya Mahesh</u>	2100150261	
<u>23</u>	<u>Sawalgi Shriyash Balasaheb</u>	2100150275	
<u>36</u>	<u>Makude Kaustubh Ishwar</u>	2100150298	
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Under the Guidance of:

Smt. Gaikwad S. N.

Government polytechnic Solapur

Certificate

Certified that this Capstone Project Synopsis Report
on
Farmers Export: Web Application

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In this work.

The Students of Semester Fifth Capstone Project Planning (CPP) on
topic **Farmers Export: Web Application**. Diploma in Information
technology 2023-2024 Partial fulfilment for the Award of Diploma in
information technology branch by MSBTE

Signature of Project Guide

Smt. Gaikwad S. N.

Signature of Head of Department

Smt. Anjikhane M. D.

Signature of principal

Dr. Ashok Upadhyay

CAPSTONE PROJECT SYNOPSIS REPORT

1.0 Title of Microproject:

Farmers Export: Web Application

2.0 Abstract:

The "Farmers Export: Web Application" is a digital platform in the agricultural export industry which caters to all the elements in exporting the farm products from one place to another from start of the crop plantation. It acts as a bridge between farmers and markets, catering to the growing demand for high-quality agricultural products. This web application offers a user-friendly interface and a comprehensive feature set, benefiting both farmers and export stakeholders.

Farmers can efficiently manage their inventory, track crop growth, access weather forecasts, and gain insights to enhance crop production. Additionally, the platform connects farmers with export partners, facilitating entry into local markets.

For exporters, the web application streamlines procurement, logistics, quality control, and compliance. It provides real-time access to a wide array of agricultural products. The application employs general web building technologies to ensure transparency, traceability, and product quality throughout the supply chain.

The "Farmers Export: Web Application" plays a pivotal role in fostering trust and collaboration in the agricultural export industry, contributing to the sustainable growth of the sector while meeting local food security demands.

3.0 Introduction:

Today's economic condition of the Indian farmers is not at all good. Farming in India is always been like a rummy game if you win then you have lot of profit else you may not even have anything. If we digitalise this farming field and make it usable for not so educated farmers then the probabilities for losses can be decreased. There are various exporters who can give the farmers the best rates of their crops but they can't approach the farmers and the farmers don't know these exporters. This is the place we want to work on and make the farmers available to the exporter and give the farmers larger scale for their income.

4.0 Rationale:

Agricultural export is a crucial sector within the global economy, contributing significantly to both food security and economic growth. However, this industry faces persistent challenges, including information gaps, inefficient supply chains, and the need for enhanced transparency. The "Farmers Export: Web Application" is conceived to address these challenges and provide a transformative solution.

1.0 Efficiency and Productivity:

This web application offers farmers a digital toolkit to enhance their efficiency and productivity. By facilitating real-time access to weather forecasts and crop management tools, it empowers farmers to optimize their production methods. This, in turn, ensures a consistent and high-quality supply of agricultural products for export.

2.0 Market Access and Expansion:

The application provides farmers with a platform to connect with export partners. It enables them to transcend local markets and tap into large number of opportunities, ultimately increasing their income and promoting economic growth in rural areas.

3.0 Streamlined Export Processes:

Exporters benefit from streamlined procurement, logistics, and compliance management. The application offers a centralized hub to access a wide range of agricultural products, making it easier to meet the diverse demands of international markets.

4.0 Transparency and Traceability:

Data analytics and blockchain technology are integrated to ensure transparency, traceability, and product quality throughout the supply chain. This technology instils trust in consumers and importers, enhancing the reputation of agricultural exports.

5.0 Economic Development:

By fostering trust and reliability, the "Farmers Export: Web Application" is a catalyst for the sustainable growth of the agricultural sector. It plays a pivotal role in advancing local food security and contributing to economic development.

6.0 Environmental Sustainability:

Through data-driven insights, the application also encourages sustainable farming practices. It can help farmers make informed decisions about resource management, promoting eco-friendly agricultural methods.

In conclusion, the "Farmers Export: Web Application" is strategically positioned to enhance the agricultural export industry. It addresses pressing challenges while promoting economic development and sustainable agricultural practices. This innovation has the potential to strengthen the agricultural sector and its contribution to global food security and economic well-being.

5.0 Literature review:

Agriculture, the backbone of many societies, faces the pressing need for transformation and modernization in today's dynamic and interconnected world. As the global population grows and environmental challenges mount, the development of a farmer-to-exporter web application has emerged as a compelling solution to revamp the agricultural supply chain. This literature review embarks on an exploratory journey into the intricate landscape of digital agriculture, supply chain management, and advanced technologies, laying the groundwork for a transformative project that aims to bridge the divide between farmers and exporters.

7.0 Problem Definition:

The agricultural export industry grapples with information disparities, limited market access for farmers, complex export processes, transparency and traceability concerns, and sustainability issues. The "Farmers Export: Web Application" seeks to resolve these challenges by offering real-time data for farmers, facilitating market access, streamlining export processes, ensuring transparency, and encouraging sustainable practices. By addressing these issues, the application aims to enhance the efficiency and sustainability of the agricultural export industry, ultimately fostering economic growth and bolstering global food security.

8.0 Proposed Methodology:

The farmers in India are suffering from lots of problems like flood, draught and many more natural disasters sometime the crop may or may not grow well sometimes the nature may not be with him. That's why the people call farming as playing rummy but we think that if the simple farmer get the better platform for selling their crops they can earn a lot and also if farming is done by studying the nature then that may help the farmers to grow.

We will provide following features through the application:

1. Fruit treatment.
2. Connecting farmer indirectly to the larger local market through exporter.
3. Providing proper schedule to the farmer for the processing of crop.
4. Providing weather information for better productivity.

9.0 Resources required:

Sr. No	Name of Resource	Details of Resource	Remarks
1	Editors and other software required	VS Code as Editor, Languages like HTML, CSS and JavaScript for Scripting. Other software like Express, Node.js and Mongo DB	
2	PC/ laptop	hp computer Processor- Intel(R) Core (TM) i5-8365U CPU @ 1.60GHz 1.90 GHz Installed Memory- (RAM)16:00GB System type - 64-byte operating system.	

8.0 Action plan:

Week No.	Days allocated for the plan	Activities planned
1	28 July to 3 Aug	Searching for topic for the Capstone project.
2	4 Aug to 10 Aug	Visiting various people in various industries for getting idea for the topic.
3	11 Aug to 17 Aug	Fetching more and more details of the explored fields from various websites like IEEE Explore.
4	18 Aug to 24 Aug	Observing the processes happening on the background of the selected field.
5	25 Aug to 31 Aug	Gathering more and more information about the chosen topic from various sites on internet and by visiting various sites.
6	1 Sept to 7 Sept	Getting information about what are the components required for the selected topic.
7	8 Sept to 14 Sept	Distributing work between the group members.

Week No.	Days allocated for the plan	Activities planned
8	15 Sept to 21 Sept	Planning what contents, the project should consist.
9	22 Sept to 28 Sept	Creating a small prototype or models for the stake holders.
10	29 Sept to 5 Oct	Meeting with the stake holders for opinions for the prototype or model.
11	6 Oct to 12 Oct	Working on the prototype or model according to the stakeholders.
12	13 Oct to 19 Oct	Meeting a working software company for guidance and inquiry of required technology.
13	20 Oct to 26 Oct	Preparing final design of the project.
14	27 Oct 2 Nov	Final decision meeting with all the stake holders.
15	3 Nov to 9 Nov	Preparing a presentation and giving it to the stakeholders.

Conclusion:

Throughout the semester we have learnt lot of things which includes various personality development skills like communication skills. Also, we have learnt how the software companies work on their projects and how they collect the required information about the project. Throughout the semester in this subject we had learnt lots of things such as how to design the web applications, how to create models, how to present our presentation in front of businessmen, how to select the technologies from the ocean of other technologies which can help while working on the project.

References:

- <https://ieeexplore.ieee.org/document/5288158>
- <https://ieeexplore.ieee.org/document/9425984>
- <https://ieeexplore.ieee.org/document/9640768>
- <https://sci-hub.hkvisa.net/10.1109/ICICTA.2009.700>