Agriconnect: Bridging Farmers and Markets for Fair Trade

Community Service Project Report Submitted to the Faculty of Engineering of

JAWAHALAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA, KAKINADA

In partial fulfillment of the requirements for the award of the Degree of

BATCHELOR OF TECHNOLOGY

IN

INFORMATION TECHNOLOGY



By

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SESHADRI RAO GUDLAVALLERU ENGINEERING COLLEGE

(An Autonomous Institute with Permanent Affiliation to JNTUK, Kakinada)
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ANDHRA PRADESH

2024-2025

Project Book For Community Service Project



Name of the Student: Kondeti Teja

Name of the College: Seshadri Rao Gudlavalleru Engineering College

Registration Number: 22481A1294

Period of CSP: From 20-05-2024 **To** 29-06-2024 and

From 15-07-2024 To 27-07-2024

Name & Address of the Community/Habitation:

Gudlavalleru(Village), Gudlavalleru(Mandal), Krishna District, Andhra Pradesh - 521356

Community Service Project Report

Submitted in accordance with the requirement for the degree of B.Tech

Name of the College: Seshadri Rao Gudlavalleru Engineering College

Department: Information Technology

Name of the Faculty Guide: Mrs.T.Sumallika, M.Tech.,(Ph.D.)

Duration of the CSP: From 20-05-2024 **To** 29-06-2024 **and**

From 15-07-2024 **To** 27-07-2024.

Name of the Student: Kondeti Teja

Programme of Study: Batchelor of Technology

Year of Study: III B. Tech. I Sem

Register Number: 22481A1294

Date of Submission: 15-11-2024

Student's Declaration

I am **Kondeti Teja**, a student of CSP Program, Reg. No. **22481A1294** of the Department of Information Technology, Seshadri Rao Gudlavalleru Engineering College do hereby declare that I have completed the mandatory community service from **20-05-2024** to **29-06-2024** and **15-07-2024** to **29-07-2024** in Gudlavalleru, Krishna district of Andhra Pradesh under the Faculty Guideship of **Mrs.T.Sumallika**, M.Tech.,(Ph.D.), Department of Information Technology in Seshadri Rao Gudlavalleru Engineering College, Gudlavalleru.

(Signature and Date)

Endorsements

Faculty Guide:

Master of Trainer(S):

Head of the Department:

Principal:

This is to certify that **Kondeti Teja** Reg.No.22481A1294 of Seshadri Rao Gudlavalleru Engineering College underwent Community Service Project in Gudlavalleru, Krishna district of Andhra Pradesh about Agriculture from 20-05-2024 to 29-06-2024 and 15-07-2024 to 27-07-2024. The overall performance of the community service volunteer during his community service is found to be Satisfactory

from the 25/11/24

Authorized Signatory with Date and Seal

ASST. Engines.

A.P.S. Housing Constantian , 18

This is to certify that **Guruju Eswari Devi** Reg.No.23485A1210 of Seshadri Rao Gudlavalleru Engineering College underwent Community Service Project in Gudlavalleru, Krishna district of Andhra Pradesh about Agriculture from 20-05-2024 to 29-06-2024 and 15-07-2024 to 27-07-2024. The overall performance of the community service volunteer during his community service is found to be Satisfactory

Amendre 25/11/24

Authorized Signatory with Date and Seal



This is to certify that **Murari Amaleswari** Reg.No.**22481A12C0** of Seshadri Rao Gudlavalleru Engineering College underwent Community Service Project in Gudlavalleru, Krishna district of Andhra Pradesh about Agriculture from **20-05-2024** to **29-06-2024** and **15-07-2024** to **27-07-2024**. The overall performance of the community service volunteer during his community service is found to be Satisfactory

Armendre as III an

Authorized Signatory with Date and Seal

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This is to certify that **Lakkoju Kiran Kumar** Reg.No.22481A1299 of Seshadri Rao Gudlavalleru Engineering College underwent Community Service Project in Gudlavalleru, Krishna district of Andhra Pradesh about Agriculture from 20-05-2024 to 29-06-2024 and 15-07-2024 to 27-07-2024. The overall performance of the community service volunteer during his community service is found to be Satisfactory

Amendre as III an

Authorized Signatory with Date and Seal



ACKNOWLEDMENTS

The satisfaction of successfully completing a task is truly enriched by the guidance and support of those who contribute to its fruition. We are deeply grateful to Mrs.T.Sumallika, Assistant Professor, Department of Information Technology, for her unwavering guidance, supervision, and motivation throughout our project work. Her consistent support and valuable insights were instrumental in navigating challenges and ensuring the project's successful completion.

We also extend our heartfelt gratitude to **Dr. D.N.V.S.L.S. Indira**, Head of the Department of Information Technology, for her encouragement and constructive feedback during the project's analysis phase. Her thoughtful annotations and critical suggestions were key to refining our efforts and achieving excellence in our work. We would like to thank **Sri.T.Balaji**, our Community Service Project Coordinator for his support and guidance throughout the project. Additionally, we express our sincere thanks to our principal, **Dr. B. Karuna Kumar**, for his continuous encouragement and for providing us with the opportunity and resources to undertake this project.

Our appreciation also goes out to the faculty members of the Information Technology Department, the programmers of our computer lab, and the non-teaching staff for their support and cooperation. Finally, we wish to express our gratitude to our family members, friends, and attendants, whose direct and indirect support played a significant role in completing this project on time.

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ABSTRACT

The project focuses on empowering farmers by leveraging technology to establish a direct and transparent connection between farmers and markets. Through a digital platform, farmers gain access to real-time pricing data for grains and agricultural produce, enabling them to make informed trading decisions. This initiative not only fosters fair trade practices by eliminating exploitative intermediaries but also ensures that farmers receive equitable prices for their hard work.

Additionally, the platform aims to raise awareness about sustainable agricultural practices and ethical trading standards, equipping farmers with knowledge to improve their farming methods and market strategies. By addressing the challenges of market access and price exploitation, the project contributes to enhancing the economic resilience and independence of farming communities.

With a long-term vision, the initiative seeks to develop a user-friendly mobile application tailored to the needs of farmers. This app will streamline the trading process, provide real-time updates, and serve as a one-stop solution for connecting farmers with buyers and markets, ensuring a robust and sustainable agricultural ecosystem. Ultimately, this project aspires to transform traditional agricultural trade practices, making them more equitable, efficient, and beneficial for the farming community.

Index

CONTENTS	Page No
Chapter 1: Executive Summary	1
Chapter 2: Overview of the Community	3
Chapter 3: Community Service Part	5
Chapter 4: Weekly Report	6
Chapter 5: Outcomes Description	22
Questionnaire	22
Problems identified in the Community	23
Short-term and Long-term action plan for possible outcomes	24
Describe the problem you identified	26
Report	28
Chapter 6: Recommendations and Conclusions	36
Student Self-Evaluation	38
Evaluation by the person in-charge	39
Photos and Video Links	40

CHAPTER 1 EXECUTIVE SUMMARY

The community service project (CSP) was conducted in a rural farming community where grain farming is the primary livelihood. The initiative aimed to support local farmers in optimizing farming, selling, and logistics practices to improve profitability through direct market engagement. Key baseline data on farm characteristics, routines, and selling challenges were gathered. Activities included documenting harvesting techniques, quality control practices, and market engagement, as well as tracking buyer interactions, pricing negotiations, and revenue outcomes. The project also monitored transport logistics, costs, and barriers, providing farmers with adaptive problem-solving strategies. Sales performance, customer feedback, and income trends were evaluated to guide improvements, with final reviews focused on support received and farmers' future goals for enhanced market engagement.

Learning Objectives

- ➤ Understand the daily workflow, resource limitations, and sales challenges faced by the farming community.
- ➤ Develop skills to assist farmers in preparing for and navigating direct market engagements.
- ➤ Gain insight into effective data collection and analysis for monitoring agricultural practices and outcomes.
- ➤ Identify and address common logistical, quality, and communication issues impacting sales performance.
- ➤ Explore sustainable methods and strategies for long-term support of farmers' direct-selling efforts.

Learning Outcomes

- ➤ Gained a comprehensive understanding of the farming community's workflow and challenges.
- > Successfully helped farmers enhance their market readiness and improve profitability.
- ➤ Applied problem-solving techniques to address logistical, quality, and communication issues.
- ➤ Collected and analyzed data to assess market outcomes and guide future improvements.
- ➤ Contributed to developing a sustainable support plan to boost farmers ongoing success in direct selling.

CHAPTER 2 OVERVIEW OF THE COMMUNITY

Community Overview: Gudlavalleru

Historical Background and Cultural Heritage

Gudlavalleru ,located in the Krishna District of Andhra Pradesh, is an

agricultural village renowned for its rich tradition of paddy farming. This region

has cultivated rice for centuries, supported by a sophisticated irrigation network

sourced from the Krishna River, which has enabled consistent year-round

farming. The village's agricultural heritage is integral to its identity, with farming

practices passed down through generations. Annual festivals and traditions

celebrate the harvest seasons, reinforcing the community's close connection to

theland and honoring its agricultural roots.

Diversity, Traditions, and Community Values

Gudlavalleru is home to a culturally diverse population, with multiple local

groups and socioeconomic backgrounds contributing to its agricultural

ecosystem. This diversity influences farming techniques, market strategies, and

collaboration among community members. Gudlavalleru values collective

solidarity, where fairness in transactions, resource-sharing, and mutual support are

central to the village ethos. These values foster an environment of cooperation and

unity, especially among farmers, who prioritize ethical practices in crop cultivation

and distribution.

Page 3

Socio-Economic Profile

As an agricultural village, Gudlavalleru's economy is predominantly driven by paddy farming, which shapes the socio-economic landscape. Most households rely on agriculture for their livelihood, though limited direct market access and reliance on intermediaries impact profitability. Economic constraints and fluctuations in rice prices add to the challenges, with farmers often facing reduced income due to dependency on traditional sales channels. Initiatives like the CSP aim to address these socio-economic hurdles by empowering farmers to access direct markets, improve income potential, and explore value-added products, thus fostering greater economic resilience and stability in Gudlavalleru.

Infrastructure and Community Intiatives

Gudlavalleru has robust infrastructure, including well-connected roads, a railway station, and reliable irrigation from Krishna Delta canals. It hosts Gudlavalleru Engineering College, quality schools, primary health centers, and private clinics. Community initiatives focus on modernizing agriculture, improving education, promoting farmer markets, and fostering youth engagement for sustainable development.

CHAPTER 3 COMMUNITY SERVICE PART

Activities Undertaken in the Community During the Community Service Project

During the Community Service Project (CSP) in Gudlavalleru, various activities were

- Data Collection and Baseline Assessment: We gathered data on farming
 practices, routines, and challenges through interviews and surveys. This
 helped assess the community's agricultural techniques, harvesting, and selling
 hurdles.
- Market Engagement and Buyer Interaction: Farmers were guided in navigating direct market engagement by organizing meetings with buyers and exploring better pricing opportunities.
- **Pricing Negotiations and Financial Planning:** Training was provided on market pricing, negotiation skills, and financial management to help farmers secure better deals and improve profitability.
- Quality Control and Standardization: Training on sorting, grading, packaging, and labeling was given to help farmers meet market standards and secure better prices.

Reflection on Values, Life Skills, and Technical Skills Acquired

- Values: I learned the importance of community solidarity, resource-sharing, and ethical farming practices, which are central to Gudlavalleru's culture.
- **Life Skills**: I honed my problem-solving, negotiation, and communication skills by interacting with farmers, buyers, and local facilitators. I also developed teamwork skills by collaborating with others in the project.
- **Technical Skills**: I gained practical experience in data collection and analysis, market research, and agricultural practices. Additionally, I learned how to train farmers effectively and ensure they could apply knowledge in their work.

Overall, the project provided me with a deep understanding of the challenges farmers face and the tools needed to support rural development. The skills I've gained will help in future projects aimed at sustainable agriculture and economic empowerment.

ACTIVITY LOG FOR THE FIRST WEEK

DAY &DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	PERSON IN-CHARGE SIGNATURE
Day-1 Monday 20 May 2024	Initial meeting with the guide to discuss agricultural domain knowledge and project goals.	Understood the scope of the project and key agricultural themes.	
Day-2 Tuesday 21 May 2024	Noted critical points on agriculture from guide's instructions, focusing on the website's relevance to farmer needs.	Gained insights into the guide's perspective on the project's value for farmers	
Day-3 Wednesday 22 May 2024	Discussed potential features for the website that cater to agricultural trading and product information.	Identified features important to the project's impact in the agriculture domain.	
Day-4 Thursday 23 May 2024	Collected sample data for possible content, focusing on agriculture-specific terminology and data needs.	Developed an understanding of the data essential for the website's content.	
Day-5 Friday 24 May 2024	Reviewed agricultural trading practices with the guide to structure the initial project plan.	Structured knowledge on agricultural trading for the website's development phase	
Day-6 Saturday 25 May 2024	Documented key agricultural processes to highlight on the website based on guide's instructions.	Identified features important to the project's impact in the agriculture domain.	

WEEK-1 (From Dt.20-05-2024 to 25-05-2024)

Objective of the Activity Done: To understand the agricultural domain and gather requirements from the guide.
Detailed Report:
1. The goal was to understand the agricultural domain and gather requirements for the website.
2. Attended meetings with the guide to understand agricultural trading practices and content needs.
3. Documented agricultural concepts and terminology for better understanding by farmers and traders.
4. Identified key website features to assist farmers, based on guide feedback.
5. Studied agricultural trends and needs to tailor features effectively.
6. Explored sample data requirements to prepare for structured content planning.
7. Developed a project outline focusing on agriculture-centered content and usability.
8. Established a clear understanding of the domain, aligning the project plan with guide expectations.

ACTIVITY LOG FOR THE SECOND WEEK

DAY &DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	PERSON IN-CHARGE SIGNATURE
Day-1 Monday 27 May 2024	Conducted interviews with local farmers to understand their challenges in trading.	Identified common problems farmers face in agricultural trade.	
Day-2 Tuesday 28 May 2024	Discussed trading issues with farmers, including pricing transparency and access to buyers.	Gained insights into farmers' concerns about market access and fair pricing.	
Day-3 Wednesday 29 May 2024	Gathered feedback on potential website features that could address their issues.	Learned which features farmers feel would be most beneficial for them.	
Day-4 Thursday 30 May 2024	Documented communication gaps between farmers and traders based on interactions.	Highlighted a key need for improved communication tools on the website.	
Day-5 Friday 31 May 2024	Reviewed the collected feedback to identify recurring challenges among farmers.	Prioritized website features based on farmers' most common issues.	
Day-6 Saturday 01 June 2024	Summarized the findings and prepared a problem statement draft.	Created a clear problem statement to guide the website's development phase	

WEEK - 2 (From Dt.27-05-2024 to 01-06-2024)

Objective of the Activity Done: Identify challenges faced by farmers that the website could help solve. **Detailed Report:** 1. The goal was to identify challenges faced by farmers that the website could address. 2. Conducted interviews with farmers to understand trading obstacles. 3. Documented issues like communication gaps and unfair pricing practices. 4. Noted concerns about limited access to updated market data and buyers. 5. Identified the need for fair pricing information as a key feature. 6. Discussed potential features, including real-time pricing and direct buyer connections. 7. Prioritized essential website features based on farmers' feedback. 8. Gained actionable insights to create a farmer-focused solution.

ACTIVITY LOG FOR THE THIRD WEEK

DAY &DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	PERSON IN-CHARGE SIGNATURE
Day-1 Monday 03 June 2024	Conducted surveys in Kavutavaram to gather additional problem statements from local farmers.	Expanded understanding of common issues in local agricultural trade.	
Day-2 Tuesday 04 June 2024	Documented feedback from farmers in Gudlavalleru, focusing on logistical and market access challenges.	Observed unique challenges specific to each area surveyed.	
Day-3 Wednesday 05 June 2024	Surveyed additional areas to confirm consistency in problem statements across locations.	Validated that identified problems are widespread and need addressing.	
Day-4 Thursday 06 June 2024	Analyzed survey results to identify patterns in farmer feedback across regions.	Identified key themes across regions to incorporate in website planning.	
Day-5 Friday 07 June 2024	Collected feedback on website feature ideas based on identified problem statements.	Gained insights into preferred website functionalities directly from users.	
Day-6 Saturday 08 June 2024	Finalized problem statements for use in designing the website prototype.	Defined concrete problems to be addressed in the website design phase.	

WEEK - 3 (From Dt.03-06-2024 to 08-06-2024)

Objective of the Activity Done: Gather comprehensive feedback from farmers in target regions.

targe	et regions.
Detaile	d Report:
1. Th	ne goal was to gather comprehensive feedback from farmers in target regions.
	nducted surveys in Kavutvaram and Gudlavalleru to document farmers' nallenges.
3. Co	ompared feedback across regions to identify consistent issues.
4. A1	nalyzed survey data to align website features with actual user needs.
5. Ve	erified demand for functionalities like real-time price updates.
6. Co	onsidered region-specific differences to improve feature customization.
7. Pr	ioritized user-centric development based on survey insights.
8. Es	tablished a solid foundation for addressing farmers' needs effectively.

ACTIVITY LOG FOR THE FOURTH WEEK

DAY &DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	PERSON IN-CHARGE SIGNATURE
Day-1 Monday 10 June 2024	Created initial sketches and layouts based on identified features.	Outlined the site structure and ensured alignment with farmers' needs.	
Day-2 Tuesday 11 June 2024	Developed wireframes for the homepage and key sections.	Established a basic visual guide for the site layout and user experience.	
Day-3 Wednesday 12 June 2024	Added interactive elements to the prototype to simulate user interactions.	Gained insights on how users might navigate and interact with the site.	
Day-4 Thursday 13 June 2024	Conducted an internal review of the prototype to identify improvement areas.	Identified adjustments needed to improve navigation and feature accessibility.	
Day-5 Friday 14 June 2024	Reviewed the wireframes with the guide to ensure alignment with project objectives.	Refined design based on guide's feedback to improve usability.	
Day-6 Saturday 15 June 2024	Finalized the prototype design and prepared for development.	Developed a ready-to- build prototype aligned with user needs and guide expectations.	

WEEK - 4 (From Dt.10-06-2024 to 16-06-2024)

Objective of the Activity Done: Design a functional prototype for the website. **Detailed Report:** 1. The goal was to design a functional prototype for the website. 2. Created wireframes for all pages, focusing on clarity and ease of use. 3. Translated problem statements into functional website features. 4. Developed interactive elements to improve user engagement. 5. Conducted internal review sessions to gather feedback. 6. Refined the layout and accessibility based on target users' preferences. 7. Ensured the prototype aligned with user-centric design principles. 8. Established a foundation for further development and testing.

ACTIVITY LOG FOR THE FIFTH WEEK

DAY &DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	PERSON IN-CHARGE SIGNATURE
Day-1 Monday 20 May 2024	Started implementing the homepage layout with HTML and CSS.	Created a responsive layout ensuring visual consistency.	
Day-2 Tuesday 21 May 2024	Added styling and initial interactive elements to the homepage.	Enhanced homepage appearance and user interactions.	
Day-3 Wednesday 22 May 2024	Refined the homepage layout for responsive design across various devices.	Ensured the homepage looks and functions well on multiple screen sizes.	
Day-4 Thursday 23 May 2024	Integrated logo and branding elements as per design guidelines.	Reinforced branding consistency on the homepage.	
Day-5 Friday 24 May 2024	Completed homepage user interface (UI) adjustments based on internal testing.	Identified improvements in functionality and visual appeal.	
Day-6 Saturday 25 May 2024	Finalized the homepage, ready for main page development in the coming weeks.	Established a fully functional, visually appealing homepage as a foundation.	

WEEK - 5 (From Dt.17-06-2024 to 22-06-2024)

Objective of the Activity Done: Implement the user interface, beginning with the homepage.
Detailed Report:
1. The goal was to design a functional prototype for the website that addresses farmers' needs effectively.
2. Created detailed wireframes for each page, focusing on simplicity, clarity, and usability.
3. Integrated identified problem statements into the design, ensuring the functionality aligns with farmers' challenges.
4. Developed interactive features like real-time price updates and buyer-seller connections to enhance engagement.
5. Conducted internal review sessions to gather constructive feedback from stakeholders and team members.
6. Iteratively refined the layout, accessibility, and navigation to match the preferences of target users, including farmers and traders.
7. Ensured the design incorporates mobile responsiveness for better accessibility in rural areas.
8. Delivered a user-focused prototype that serves as a foundation for testing and further development, aligning with project goals.

ACTIVITY LOG FOR THE SIXTH WEEK

DAY &DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	PERSON IN-CHARGE SIGNATURE
Day-1 Monday 24 June 2024	Started implementing the main page layout and structure using HTML and CSS.	Built a cohesive layout aligned with the website's overall design and user needs.	
Day-2 Tuesday 25 June 2024	Integrated trading information sections to provide real-time agricultural data and market prices.	Added informative sections essential for farmers' access to relevant data.	
Day-3 Wednesday 26 June 2024	Developed user-interactive features for trading, such as price calculators and input forms.	Enhanced usability by allowing users to interact with trading tools directly.	
Day-4 Thursday 27 June 2024	Conducted initial testing on trading features to ensure accuracy and functionality.	Identified potential issues, improving feature reliability and data accuracy.	
Day-5 Friday 28 June 2024	Added information on the importance of trading and benefits for farmers, based on survey insights.	Enhanced content by highlighting key trading advantages relevant to users.	
Day-6 Saturday 29 June 2024	Finalized main page structure and reviewed trading features for accuracy.	Completed the main pages, ready for additional testing and user review.	

WEEK - 6 (From Dt.24-06-2024 to 29-06-2024)

	ctive of the Activity Done: Develop the main pages, focusing on trading ares to support farmers' informational needs.
Detailed R	Report:
-	mented the main page layout, ensuring consistency with the design of the epage.
_	ated trading information, including market prices and real-time data, for r user insights.
	oped user-friendly interactive tools such as APIs and input forms to mline usability.
	d content emphasizing the importance of trading, reinforcing the website's e for farmers.
5. Testeo	d all functionalities to ensure the accuracy and reliability of features.
6. Refine	ed design elements to maintain a cohesive and professional appearance.
7. Valida	ated user tools to ensure accessibility and ease of use across devices.
	ed the main page aligns with the project's goal of addressing farmers' enges effectively.

ACTIVITY LOG FOR THE SEVENTH WEEK

DAY &DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	PERSON IN-CHARGE SIGNATURE
Day-1 Monday 15 July 2024	Finalized additional pages, such as the About Us and Contact sections.	Built out the site's content for full functionality and professionalism.	
Day-2 Tuesday 16 July 2024	Added feedback forms and inquiry sections to facilitate user interactions.	Enhanced engagement by creating ways for users to communicate with website admins.	
Day-3 Wednesday 17 July 2024	Conducted cross-device and browser compatibility testing for all pages.	Ensured website performs well on different devices and browsers.	
Day-4 Thursday 18 July 2024	Implemented user account and registration features to support future growth.	Added capabilities for user account management, allowing secure logins.	
Day-5 Friday 19 July 2024	Fixed issues identified during compatibility testing and enhanced mobile responsiveness.	Improved website reliability and accessibility for mobile users.	
Day-6 Saturday 20 July 2024	Conducted internal team review to identify any remaining design or functionality improvements.	Gathered feedback to refine the website's final touches before launch.	

WEEK - 7 (From Dt.15-07-2024 to 20-07-2024)

Objective of the Activity Done: Finalize the website's pages and complete initial testing for a smooth user experience.

testing for a smooth user experience.
Detailed Report:
The goal was to finalize the website's pages and complete initial testing for a seamless user experience.
2. Developed the remaining pages, including detailed informational sections and a contact page.
3. Added feedback and inquiry forms to encourage user engagement and collect insights.
4. Tested the website's functionality across devices and browsers to ensure compatibility and responsiveness.
5. Implemented secure user account and registration features to enhance privacy and usability.
6. Conducted an internal review to identify and address any design or functionality gaps.
7. Refined content and layout based on review feedback to improve clarity and navigation.
8. Ensured the website was ready for user testing with a focus on reliability and user-centric design.

ACTIVITY LOG FOR THE EIGHTH WEEK

DAY &DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	PERSON IN-CHARGE SIGNATURE
Day-1 Monday 22 July 2024	Conducted comprehensive testing across all website features, including interactive elements.	Identified and fixed minor issues to ensure smooth, error-free performance.	
Day-2 Tuesday 23 July 2024	Tested all user flows, from registration to feedback submission, for seamless user experience.	Ensured all interactive features work effectively and intuitively for users.	
Day-3 Wednesday 24 July 2024	Finalized technical documentation, detailing each feature, design decision, and coding structure.	Created a thorough record of the development process for future reference.	
Day-4 Thursday 25 July 2024	Prepared a user manual to guide end-users on navigating and using website features.	Enhanced usability by providing clear instructions for new users.	
Day-5 Friday 26 July 2024	Held a final project review with the team and guide, addressing any remaining adjustments before launch.	Gathered final feedback, ensuring the project meets all original goals and quality.	
Day-6 Saturday 27 July 2024	Acquiring knowledge to get over the aims of the long term goals like we aimed at development of app	Acquiring knowledge to get over the aim at development of app	

WEEK - 8 (From Dt.22-07-2024 to 27-07-2024)				
Objective of the Activity Done: Complete final testing, documentation, and deploy the website.				
Detailed Report:				
1. Conducted comprehensive testing of all website features to ensure full functionality and resolve any issues.				
2. Documented each development stage, highlighting design choices and technical decisions for future reference.				
3. Created a detailed user guide to help end-users navigate and utilize the website's features effectively.				
4. Organized a final review meeting with stakeholders to gather feedback and finalize necessary adjustments.				
5. Implemented final refinements based on the review to enhance user experience and address any gaps				
6. Deployed the website successfully, making it live for users and marking the project's completion.				
7. Monitored initial performance and user feedback to ensure smooth operation post-launch.				
8. Established a maintenance plan to support ongoing functionality and updates.				

CHAPTER 5 OUTCOMES DESCRIPTION

Details of the Socio-Economic Survey of the Village/Habitation. Attach the questionnaire prepared for the survey.

- 1. How many crops yield in a year?
- 2. How many years have you been in this occupation?
- 3. What is the Status of your Economical Growth?
- 4. How you got loss in agriculture?
- 5. How to prevent loss in agriculture?
- 6. Are you depending on money lenders for capital?
- 7. How would you describe the current market prices for your products?
- 8. Do you think the prices you receive for your products are fair?
- 9. What is your approximate annual income from agricultural activities?
- 10. Have you noticed any changes in consumer preferences over the years?
- 11. What methods do you currently use to market your agricultural products?
- 12. What are the biggest challenges you face in marketing your agricultural products?
- 13. How you get more profits from agricultural products?
- 14. What are the current costs of producing and selling your products directly to Markets?
- 15. How do you price your products to stay competitive and make a profit?
- 16. What ways do you make money from selling directly consumers, and how can you increase these earnings?
- 17. How do you manage cash flow to handle the seasonal nature of farming?
- 18. What financial risks come with direct-to-consumer sales, and how do you reduce them?
- 19. What financial records and reporting systems do you use to track sales and expenses?
- 20. How do you find and use funding or grants for direct-to-market agricultural sales?

Describe the problems you have identified in the community

The problems identified in the community are given below:

Limited Access to Direct Markets

Farmers rely heavily on intermediaries to sell their produce, which results in reduced profit margins and lower prices. There is a significant lack of direct market access, preventing farmers from negotiating better prices and maximizing their income.

Fluctuating Rice Prices

The price of rice in Gudlavalleru fluctuates significantly, making it difficult for farmers to predict their income. This price volatility, driven by external market forces and intermediary control, creates financial instability for farmers.

Inadequate Transportation and Logistics Infrastructure

The community faces high transportation costs and a lack of efficient infrastructure, making it difficult for farmers to reach markets in a timely manner. This results in increased post-harvest losses and reduces the overall profitability of their crops.

Outdated Farming Practices

Many farmers still use traditional and inefficient farming methods. The lack of access to modern technologies, such as mechanized farming tools or advanced pest management systems, limits productivity and affects the quality of produce.

Short-term and long-term action plan for possible solutions for the problems identified and that could be recommended to the concerned authorities for implementation

Short-term Action Plan:

Improved Market Information Systems:

Develop a digital platform or mobile app that provides real-time market prices, weather forecasts, and demand-supply data for paddy, enabling farmers to make informed decisions and reduce dependency on intermediaries.

Price Stabilization and Support Mechanism:

Set up a temporary government or cooperative-run support program that ensures minimum price guarantees for rice, helping stabilizeprices during periods of excess supply or market volatility.

Awareness Campaign on Marketing Statergies:

An awareness campaign empowering farmers and marketers with digital tools, direct market access, branding, fair pricing strategies, and networking for effective, cost-efficient promotion and trade, fostering sustainable, fair marketing practices..

Long-term Action Plan:

Establishment of a Stable Paddy Value Chain:

Build partnerships between farmers, millers, traders, and consumers to create a sustainable paddy value chain, minimizing intermediaries and maximizing profits for farmers, ensuring fair pricing and market access.

Investment in Irrigation and Water Management Systems:

Implement long-term irrigation projects, including rainwater harvesting and efficient water use technologies, ensuring reliable water supply for agriculture during dry seasons.

Farmer Education and Capacity Building:

Introduce comprehensive educational programs to enhance farmer's technical skills, financial management, and the use of digital tools forbetter market engagement, improving long-term sustainability and profitability.

Describe the problems you have identified in the community Problems Identified Financial Challenges

Farmers in Gudlavalleru face financial challenges such as limited access to affordable credit or government loans, Exploitative interest loans from informal lenders, Insufficient financial literacy to manage loans and investments.

Agreemental Policy with Lenders/Graintraders

Farmers often face the challenge of being obligated to sell their yield to lenders at unfavorable terms due to prior loan agreements, limiting their ability to seek better market opportunities.

Loss in Agriculture

Losses in agriculture occur due to unpredictable weather, pests, diseases, and the high cost of production, especially for those who do not use modern farming techniques.

Market Prices for Products

Farmers struggle with limited market access, reliance on middlemen, unfair pricing due to opaque market rates, weak bargaining power, and high transportation costs, all of which undermine their profitability and independence.

Maximizing Profits from Agriculture

Farmers struggle to maximize profits due to inefficiencies inproduction methods, lack of market access, and high input costs.

OUTCOMES

Integration with Markets Without Intermediaries

Integrating Farmers with markets directly improves profits by eliminating intermediaries, ensures fair pricing through transparency, and enhances bargaining power. It reduces costs, accelerates payments, and builds stronger buyer relationships. Farmers gain market insights for better planning, fostering trust and sustainable trade. This boosts rural economies, enabling investments in improved farming practices and infrastructure for long-term growth.

Financial Literacy and Real-Time Market Awareness

Awareness of daily market price changes empowers farmers to make informed decisions, optimizing profits and avoiding exploitation and financial management have helped farmers better manage cash flow, handle seasonal income variations, and plan for the future.

Increased Access to Government Support and Schemes

Farmers were made more aware of government schemes and fundingoptions, leading to increased participation in agricultural support programs and better access to resources.

Diversification and Multi-Cropping

Training programs already available in youtube and many platforms, farmers have begun exploring the benefits of multi-cropping, leading to better income stability and improved soil health.

Report of the Community Service Project work done in the related

Subject w.r.t the habitation /village

Project Title: AgriConnect: Bridging Farmers and Marketfor Fair Trade

Introduction

Gudlavalleru is a rural village in the Krishna district of Andhra Pradesh, primarily known for its paddy cultivation. The village's economy is largely dependent on agriculture, with rice being the main crop grown throughout the year. However, despite the long history of paddy farming, farmers face several challenges such as fluctuating market prices, limited access to quality seeds and fertilizers, inadequate irrigation facilities, and vulnerability to climate change impacts. This mini-project aims to explore how modern farming techniques and sustainable practices can improve paddy farming productivity, reduce dependency on intermediaries, and increase the overall income of farmers in Gudlavalleru.

Analysis of problem

Farmers in Gudlavalleru face several interlinked challenges that hinder their agricultural productivity and income stability. These include fluctuating market prices due to limited access to transparent market information and multiple intermediaries, lack of access to high-quality seeds and inputs, inefficient irrigation systems, and the impact of climate change causing unpredictable weather patterns. Additionally, poor market access, inadequate rural infrastructure, and financial constraints further exacerbate the difficulties. Many farmers rely on local middlemen, reducing their bargaining power and profits, while limited access to credit and financial support hampers investments in modern farming practices.

These issues collectively undermine the potential for sustainable farming, leading to low yields, increased costs, and financial instability.

Implementation

To address the problems identified in Gudlavalleru, a comprehensive implementation plan was devised focusing on improving agricultural productivity, market access, and financial stability for farmers. The first step was to establish a digital platform to provide real-time market prices, weather forecasts, and supplydemand data to help farmers make informed decisions on when and where to sell their produce. This would reduce the reliance on intermediaries, stabilizing prices and ensuring better profits Next, workshops and training programs were organized to promote the use of high-yield variety(HYV) seeds, modern farming techniques, and sustainable practices, including organic farming and integrated pest management. A focus was placed on enhancing irrigation infrastructure, with rainwater harvesting systems and drip irrigation methods being introduced to tackle water scarcity. Additionally, farmers were linked to direct markets through cooperatives and digital platforms, allowing them to bypass middlemen and access fair pricing. Financial literacy programs were implemented, focusing on budgeting, cash flow management, and the use of low-interest loans and grants for agricultural activities. Government schemes for compensation in case of crop damage due to natural disasters were also advocated, ensuring a safety net for farmers.

Finally, the project encouraged the adoption of climate-resilient farming practices and the use of technology, such as IoT for precision agriculture, to reduce the impact of adverse weather events and increase productivity. This holistic approach aimed not only to resolve the immediate challenges but also to create a sustainable framework for long-term growth and market engagement

CODE FOR AGRICONNECT

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<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale= 1.0 ">
< title> AgriConnect - Agriculture & Markets</ title>
<style>
  * {
    margin: 0;
    padding: 0;
    box-sizing: border-box;
  body {
    font-family: Arial, sans-serif;
    background-color:
    #f7f7f7; color: #333;
  }
  .navbar {
    display:
    flex;
    justify-content: space-
    between; align-items:
    center;
    padding: 1rem 5%;
    background-color: #ffffff;
    box-shadow: 0 2px 10px
    rgba(0,0,0,0.1); transition:
    background-color 0.3 s;
  .navbar:hover {
    background-color: rgba(255, 255, 255, 0.9);
  .logo {
    display: flex;
    align-items:
    center; font-
    size: 24px;
    font-weight:
    bold; color:
    #4CAF50;
  .hero {
    height: 80vh;
    display: flex;
    flex-direction: column;
    justify-content:
    center; align-items:
    center; text-align:
    center;
```

```
.cta-button {
  padding: 1rem 2rem;
  background-color:
  #4CAF50; color: white;
  border: none;
  border-radius: 5
  px;font-size:
  18px; cursor:
  pointer;
  transition: background-color 0.3s,
  transform 0.3s; box-shadow: 0 4px 6px
  rgba(0, 0, 0, 0.1);
.cta-button:hover {
  background-color:
  #45a049;transform:
  translateY(-2 px);
/* Insights Section */
.insights-section
  {display: flex;
 justify-content: space-around;
  margin: 20px
  auto; width:
  80%;
  height:max-
  content; max-
  width: 1200px;
.insight-box {
  display:
  block; width:
  30%; padding:
  20px; text-
  align: center;
  background-color:
  #ffffff;border-radius:
  8px;
  text-decoration: none;
  color: #333;
  transition: transform 0.3s, box-shadow 0.3s;
  box-shadow: 0 2px 8px rgba(0, 0, 0, 0.1);
.insight-box img
  width: 50px;
    height:
    auto;
```

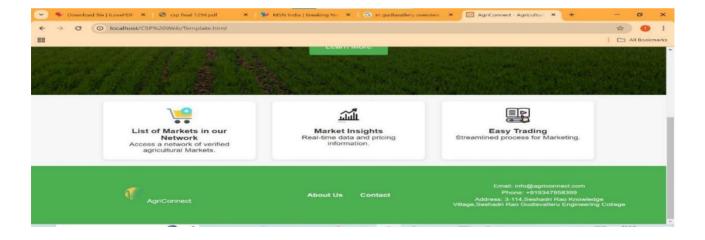
```
margin-bottom: 10px;
        </style>
    </head>
    <body>
      <!-- Navbar -->
      <nav class="navbar">
        <div class="logo">
          <img src="logo-dark.png"</pre>
          alt="Logo">AgriConnect
        <a href="Template.html"><b>Home</b></a>
          class="dropdown">
            <a href="#" class="dropbtn">Register</a>
            <div class=" dropdown- content">
             <a href="http://localhost/Csp Web/ Registration.html">Farmer</a>
             <a href="http://localhost/Csp Web/ Market Registration. html">Marketer</a>
            </div>
          cli class="dropdown">
            <a href="#" class="dropbtn">Login</a>
            <div class=" dropdown- content">
             <a href="Login.html">Farmer</a>
             <a href="Market Login. html">Marketer</a>
            </div>
          <a
                                       href="https://www.
    sakshi.com/tags/agriculture-market- committee"><b>News</b></a>
          <a href="About Us.html"><b>About Us</b></a>
       </nav>
      <!-- Hero Section -->
      <section class="hero">
        <h1>Welcome to AgriConnect</h1>
        <h2> Bridging Farmers and Markets for Sustainable Growth and Fair Trade</h2>
        <button class="cta-button" onclick="scrollToInsights()">Learn More</button>
      </section>
      <!-- Insights Section -->
       <div class="insights-section" id="insights-section">
         <a href="ListofMarkets.php" class="insight-box">
          <img src="insight1.png" alt="Connect with Buyers">
          <h3>List of Markets in our Network</h3>
           Access a network of verified agricultural Markets. 
                <a href="https://agmarknet.gov.in/MarketProfile/displayformdetails.aspx"
class="insight-box">
          <img src="insight2.png" alt="Market Insights">
          <h3>Market Insights</h3>
          Real-time data and pricing information. 
        </a>
```

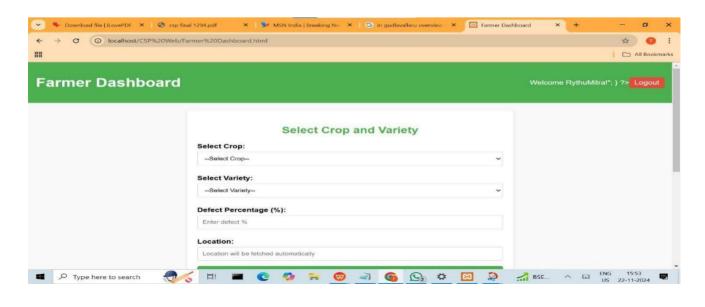
```
<a href="Tutorial. html" class="insight-box">
     <img src="insight3.png" alt="Easy Trading">
     <h3>Easy Trading</h3>
     Streamlined process for Marketing. 
   </a>
 </div>
  <!-- Footer -->
  <footer class="footer">
    <div class="footer-logo">
     <img src="logo-dark.png" alt="AgriConnect
     Logo">AgriConnect
    </div>
    <div class="quick-links">
     <a href="About Us.html">About Us</a>
     <a href="Contact.html">Contact</a>
    </div>
    <div class="contact-info">
     Email: info@agriconnect.com
     Phone: +919347958399
       >Address: 3- 114,Seshadri Rao Knowledge Village,Seshadri Rao
  Gudlavalleru Engineering College 
  </div>
</footer>
  <script>
    function scrollToInsights() {
     const insightsSection = document.getElementById('insights-
     section'); window.scrollTo({
       top: insightsSection.offsetTop,
       behavior: 'smooth'
      });
  </script>
</body>
</html>
```

❖ We Developed a Web Application for Farmers to Integrate with Markets for Fair Trade



This comprises three components: a template listing registered markets, a web scraping tool for real-time grain pricing, and a tutorial for easy access. Together, they ensure transparency, informed decisions, and user-friendly navigation for stakeholders and below is Farmer dashboard this information is shared to markets.

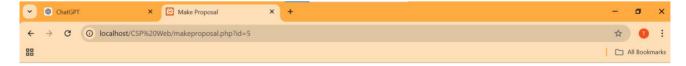




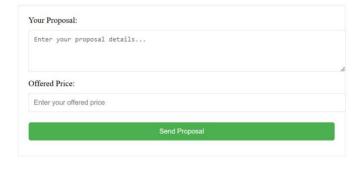
❖ Below is the Marketers dashboard, Marketer will analyse and make a buying proposal by clicking on it and next is to list of markets in our network and bottom is buyer sending proposal for farmer by message.







Making a Proposal for 9347958399



CHAPTER 6

RECOMMENDATIONS AND CONCLUSIONS OF THE COMMUNITY SERVICE PROJECT

Recommendations

➤ Market Access and Pricing Transparency

To reduce price fluctuations and enhance income stability, it is essential to establish digital platforms or mobile applications that provide farmers with real-time market prices, weather forecasts, and demand- supply data. This will empower farmers to make informed decisions regarding the sale of their produce, minimize dependency on intermediaries, and ensure fairer pricing.

> Government Transparency in Loan Assessment and Schemes

Government Transparency in Loan Assessment and Schemes ensures fair and accessible financial support for farmers. It involves clear, standardized processes for evaluating loan applications, making terms and conditions easily understandable. Transparent systems prevent exploitation by lenders, promote equitable access to subsidies and government schemes, and help farmers make informed decisions about available support. This fosters trust, encourages responsible borrowing, and enhances the effectiveness of agricultural development programs.

> Financial Literacy and Access to Credit

There is a need for financial literacy programs that focus on budgeting, savings, and effective cash flow management, especially during the off-season. Also, easier access to low-interest loans or subsidies for purchasing seeds, equipment, and fertilizers should be explored to enable farmers to invest in modern technologies and improve farm productivity..

> Promotion of Technology in Agriculture

The adoption of technologies such as the Internet of Things (IoT) for monitoring irrigation, fertilizers, and pesticides should be encouraged. Technology can improve precision in farming, reduce input costs, and increase overall productivity, making farming more profitable and sustainable in the long run.

> Awareness about weather forecasting

Awareness about weather forecasting helps farmers plan planting and harvesting, manage irrigation efficiently, and protect crops from extreme weather. It enables early pest and disease control, reduces losses, and improves productivity by anticipating weather events like droughts or floods. Access to accurate forecasts leads to better decision-making, enhancing crop yield, quality, and farm sustainability.

> On Market Demand Production

Farmers can optimize profits by aligning their grain production with market demand. By staying informed about trending grains and consumer preferences, farmers can strategically plan crops to match market needs. This approach ensures higher demand, better prices, and reduced risk of overproduction or wastage. Tools like market reports, buyer feedback, and price forecasting can guide decision-making for profitable trading.

Conclusion

The Community Service Project in Gudlavalleru highlighted the numerous challenges faced by farmers, primarily related to market access, pricing instability, limited access to quality inputs, and environmental factors such as water scarcity and climate change. The project successfully addressed these issues by implementing a multi-faceted approach that included technology adoption, capacity building, financial management training, and improved market linkages. By equipping farmers with better information and resources, the project has laid the foundation for improving their income stability, market access, and long-term sustainability. However, for lasting change, continued government support, improved infrastructure, and community collaboration are crucial. The project has not only provided immediate solutions to the farmers' challenges but also created an actionable roadmap for future growth and resilience in the agricultural sector of Gudlavalleru. In conclusion, the findings and recommendations from this project offer valuable insights for future initiatives aimed at To boost farmer profitability and sustainability, integrating digital platforms for real-time market prices and demand data can ensure fair pricing and reduce intermediary reliance. Promoting high-yielding, climate-resilient crops alongside modern farming practices improves productivity. Transparent loan systems and financial literacy programs enable better financial management. Collaborations among stakeholders strengthen value chains. Additionally, technology, weather forecasting awareness, and aligning production with market demand can optimize yield, reduce risks, and improve decision-making for higher profits. The collaboration between various stakeholders, including farmers, local governments, and NGOs, will be essential to creating a thriving agricultural ecosystem that supports economic stability and growth in the community.

Student Self-Evaluation for the Community Service Project

Student Name : Kondeti Teja Registration No : 22481A1294

Period of CSP : From 20-05-2024 To 26-06-2024 and

From 15-07-2024 To 27-07-2024

Date of Evaluation:

Name of the Person in-charge :

Address with mobile number:

Please rate your performance in the following areas:

Rating Scale: 1 is lowest and 5 h	ighest rank				
1) Oral communication	1	2	3	4	5
2) Written communication	1	2	3	4	5
3) Proactiveness	1	2	3	4	5
4) Interaction ability with community	1	2	3	4	5
5) Positive Attitude	1	2	3	4	5
6) Self-confidence	1	2	3	4	5
7) Ability to learn	1	2	3	4	5
8) Work Plan and organization	1	2	3	4	5
9) Professionalism	1	2	3	4	5
10) Creativity	1	2	3	4	5
11) Quality of work done	1	2	3	4	5
12) Time Management	1	2	3	4	5
13) Understanding the Community	1	2	3	4	5
14) Achievement of Desired Outcomes	1	2	3	4	5
15) OVERALL PERFORMANCE	1	2	3	4	5

Date: Signature of the Student

Evaluation by the Person in-charge in the Community/Habitations

Student Name : Kondeti Teja Registration No : 22481A1294

Period of CSP : From 20-05-2024 To 26-06-2024 and

From 15-07-2024 To 27-07-2024

Date of Evaluation:

Name of the Person in-charge:

Address with mobile number:

Pleases rate the student's performance in the following areas:

Please note that your evaluation shall be done independent of the Stduent's self-evaluation

Rating Scale: 1 is lowest and 5 is highest rank

1) Oral communication	1	2	3	4	5
2) Written communication	1	2	3	4	5
3) Proactiveness	1	2	3	4	5
4) Interaction ability with community	1	2	3	4	5
5) Positive Attitude	1	2	3	4	5
6) Self-confidence	1	2	3	4	5
7) Ability to learn	1	2	3	4	5
8) Work Plan and organization	1	2	3	4	5
9) Professionalism	1	2	3	4	5
10) Creativity	1	2	3	4	5
11) Quality of work done	1	2	3	4	5
12) Time Management	1	2	3	4	5
13) Understanding the Community	1	2	3	4	5
14) Achievement of Desired Outcomes	1	2	3	4	5
15) OVERALL PERFORMANCE	1	2	3	4	5

Date: Signature of the Student

PHOTOS AND VIDEO LINKS







