Project: Solar Project Management Tool

Stevens Institute of Technology
SSW 555 - Agile Methods for Software Development

Team Bravo

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Project points:

The objective of developing a prototype Solar Project Management tool that connects Sales, Construction crews, Operations managers, and end-customers is to create a user-friendly, efficient and centralized platform for managing solar energy projects from sales through to construction, installation, and ongoing operations.

With the ultimate goal of delivering high-quality solar energy systems that meet the needs and expectations of end-customers, the tool should give each stakeholder group the data, tools, and resources they need to maximize their contributions to the project. It should also be called "SolarTrack" to reflect its primary purpose of tracking and managing solar projects.

All stakeholders should be able to see project timelines, timetables, budgets, and performance metrics thanks to the prototype tool's improved communication, collaboration, and data sharing features. Real-time data and analytics should be available, and it should be able to interface with other energy management systems to support decision-making and help pinpoint areas for improvement.

Ultimately, the objective of this prototype project is to create a robust and scalable Solar Project Management tool that can improve the efficiency, productivity, and effectiveness of solar energy projects, leading to increased customer satisfaction and greater adoption of renewable energy solutions.

Project Reference:

To develop a prototype of a Solar Project Management tool that connects Sales, Construction crews, Operations managers, and end-customers, we can follow the steps in sprint format below:

Sprint 1: Identify the key features and functionalities of the Solar Project Management tool, based on the requirements of Sales, Construction crews, Operations managers, and end-customers.

End Result: Requirement Analysis Report with Verification and Validation

Sprint 2 & 3: Develop a **service interface design** for the tool that is intuitive and easy to navigate, with separate login portals for Sales, Construction crews, Operations managers, and end-customers.

Implement the following features in the tool:

Sales:

- Ability to create and manage sales leads and proposals
- Integration with CRM system
- Dashboard to track sales performance

- Ability to generate sales reports and analytics

Construction crews:

- Dashboard to manage project timelines and schedules
- Ability to create and manage project tasks
- Integration with project management software
- Ability to track project expenses and budget

Operations managers:

- Dashboard to monitor project progress and performance
- Ability to generate reports and analytics on project performance
- Integration with accounting and financial systems
- Ability to manage customer communication and support

End-customers:

- Dashboard to track project status and timelines
- Ability to communicate with the construction crew and operations manager
- Access to project documentation and progress reports

Sprint 2 & 3: Develop a database to store all the project-related data and ensure that the data is secure and accessible only to authorized users.

Sprint 2 & 3: Test the prototype with a group of users, including Sales, Construction crews, Operations managers, and end-customers, to gather feedback and refine the tool.

Sprint 4: Integration Test, Sanity Test and Performance Test

Iterate on the design and development of the tool based on user feedback, with the goal of creating a user-friendly and efficient Solar Project Management tool that meets the needs of all stakeholders involved in the project.

Flow of Project: (Hidden Stakeholders in Bold)

1. Customer comes to Sales Representative: Requirements gather from customer
2. Sales Representative to check estimation with given information.
3. Customer is good with tender, Sales representative can start sale agreement.
4. Customer Signs sale agreement will also require **legal team, approval government or local authorities,** and invoice is generated and ETA is established.
5. Invoice generated will be sent to Operations Manager

6. Operation Managers creates BO of goods, **3rd party Supplier** and generates work order for construction team to approve
7. Operation Manager Marks BO as received.
8. Construction team approves the work order, generates the invoice of work and work order date and sends to operational team.
9. Operation Manager approves Invoice
10. Customer gets notification confirmation for work.Customer approves, construction team get green light.
11. Once work completed, construction team updates work order to operations team
12. Operation team informs sales rep
13. Sales rep gets feedback from customer
14. Customer provides feedback
15. Workflow complete

Module level Analysis:

1. Sales Module:

The flow for the Sales module would begin with sales reps adding new leads to the sales pipeline. Sales reps can then use the tool to manage the sales process, from creating custom quotes based on the customer's specific needs, to closing deals and sending contracts for signature. Once the deal is closed, the sales rep can transfer the project to the Construction module.

2. Construction Module:

The flow for the Construction module would begin with the project being transferred from the Sales module. The construction team would then use the tool to manage the project timeline, tasks to be completed, and resources required. The tool would also allow for real-time communication between the construction team and Operations managers, enabling managers to monitor project progress and make adjustments as needed.

3. Operations Module:

The flow for the Operations module would begin with the Operations manager reviewing the project portfolio dashboard, which displays an overview of all ongoing projects. From there, the manager can drill down to view more detailed information, such as project status, resource utilization, and budget information. The Operations module would also include tools for scheduling and resource allocation, which can be adjusted as needed.

4. Customer Module:

The flow for the Customer module would begin with the customer accessing the portal to view project progress and communicate with the construction team. The dashboard would display project status, timelines, and any issues or changes that need to be made. Customers can

submit feedback or change requests through the portal, and view updates from the construction team.

Overall, the flow of the Solar Project Management tool would be designed to enable seamless communication and collaboration between Sales, Construction crews, Operations managers, and end-customers, ensuring that everyone is informed and connected throughout the project lifecycle. The tool would facilitate the transfer of information between each group, allowing for real-time updates and adjustments to be made as needed.