

Project Design Phase
Problem – Solution Fit Template

Date	15 February 2025
Team ID	
Project Name	
Maximum Marks	2 Marks

Problem – Solution Fit Template

The problem we're trying to solve is a significant one, affecting numerous individuals and organizations. The current solutions to this problem are inadequate, with limitations and drawbacks that hinder their effectiveness. The consequences of not solving this problem are severe, resulting in wasted resources, lost opportunities, and decreased productivity.

Our ideal solution would be one that addresses the root causes of the problem, providing a comprehensive and sustainable fix. It would be user-friendly, efficient, and cost-effective, with features and functionalities that meet the needs of our target market. Our solution would improve upon the current solutions by providing a more streamlined and integrated approach, reducing complexity and increasing efficacy.

Our solution addresses the problem by providing a unique and innovative approach that leverages cutting-edge technology and best practices. It improves upon the current solutions by providing a more comprehensive and sustainable fix, with features and functionalities that meet the needs of our target market. The key benefits of our solution include increased efficiency, reduced costs, and improved productivity.

Our target market is comprised of individuals and organizations that are affected by the problem we're trying to solve. They are seeking a solution that is comprehensive, sustainable, and cost-effective. Our solution meets their needs by providing a user-friendly, efficient, and integrated approach that addresses the root causes of the problem.

Our solution is designed to be scalable and flexible, allowing it to adapt to the changing needs of our target market. It is also highly customizable, enabling users to tailor it to their specific requirements. This flexibility and customizability are key benefits of our solution, as they enable users to get the most out of it.

In addition to its many benefits, our solution is also highly intuitive and easy to use. It features a user-friendly interface that makes it easy for users to navigate and find the information they need. This ease of use is a key advantage of our solution, as it reduces the learning curve and enables users to get up and running quickly.

Our solution is also highly secure, featuring robust security measures that protect user data and prevent unauthorized access. This security is a top priority for us, and we have implemented a range of measures to ensure that our solution is secure and trustworthy. These measures include encryption, firewalls, and intrusion detection, among others.

We believe that our solution has the potential to make a significant impact on our target market. It addresses a pressing need and provides a range of benefits that can help users to achieve their goals. We are excited about the potential of our solution and are committed to continuing to develop and improve it in order to meet the evolving needs of our users.

Our solution is designed to be highly reliable and efficient, with a robust architecture that ensures maximum uptime and minimal downtime. This reliability is critical for our target market, where downtime can have serious consequences. By providing a reliable solution, we can help our users to minimize risks and maximize productivity.

We are committed to providing exceptional support and service to our users. Our dedicated support team is available to assist with any questions or issues that may arise, and we offer a range of resources and documentation to help users to get the most out of our solution. By providing outstanding support and service, we can help our users to achieve their goals and realize the full potential of our solution.

Our solution is designed to provide a seamless and intuitive user experience, empowering users to achieve

Purpose:

- Solve complex problems in a way that fits the state of your customers.
- Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior.
- Sharpen your communication and marketing strategy with the right triggers and messaging.
- Increase touch-points with your company by finding the right problem-behavior fit and building trust by solving frequent annoyances, or urgent or costly problems.

Understand the existing situation in order to improve it for your target group.

Template:

Define CS, fit into CC	1. CUSTOMER SEGMENT(S) Who is your customer? I.e. working parents of 0-5 y.o. kids	6. CUSTOMER CONSTRAINTS What constraints prevent your customers from taking action or limit their choices of solutions? I.e. spending power, budget, no cash, network connection, available devices.	5. AVAILABLE SOLUTIONS Which solutions are available to the customers when they or need to get the job done? What have they tried in the past these solutions have? I.e. pen and paper is an alternative t
	2. JOBS-TO-BE-DONE / PROBLEMS Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.	9. PROBLEM ROOT CAUSE What is the real reason that this problem exists? What is the back story behind the need to do this job? I.e. customers have to do it because of the change in regulations.	7. BEHAVIOUR What does your customer do to address the problem and: I.e. directly related: find the right solar panel installer, call Indirectly associated: customers spend free time on volun
Focus on J&P, tap into BE, understand RC	3. TRIGGERS What triggers customers to act? I.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.	10. YOUR SOLUTION If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality. If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.	8. CHANNELS of BEHAVIOUR 8.1 ONLINE What kind of actions do customers take online? Extract or
	4. EMOTIONS: BEFORE / AFTER How do customers feel when they face a problem or a job and afterwards? I.e. lost, insecure > confident, in control - use it in your communication strategy & design.		8.2 OFFLINE What kind of actions do customers take offline? Extract or and use them for customer development.
Identify strong TR & EM			

References:

1. <https://www.ideahackers.network/problem-solution-fit-canvas/>
2. <https://medium.com/@epicantus/problem-solution-fit-canvas-aa3dd59cb4fe>

In conclusion, our solution offers a comprehensive and innovative approach to solving a significant problem, providing a range of benefits that can help users to achieve their goals and realize their full potential.

With its robust features, intuitive interface, and exceptional support, our solution is poised to revolutionize the way our target market approaches this critical challenge. By providing a reliable, efficient, and effective solution, we can help users to save time, reduce costs, and achieve their goals with greater ease and confidence. As we continue to evolve and improve our solution, we remain committed to delivering exceptional value to our users and establishing ourselves as a leader in this dynamic and rapidly evolving field.

By leveraging our solution, users can unlock new levels of productivity, innovation, and success. Our solution has the potential to transform the way our target market works, collaborates, and achieves its goals. With its cutting-edge technology, user-centric design, and customer-focused approach, our solution is the perfect catalyst for individuals and organizations looking to stay ahead of the curve and achieve their full potential.

As we move forward, we are committed to continuous innovation and improvement, ensuring that our solution remains at the forefront of the industry. With a keen eye on emerging trends and technologies, we will continue to evolve and refine our solution, always seeking new and better ways to serve our users and help them achieve their goals. By staying focused on our mission and dedicated to our values, we are confident that our solution will remain a trusted and indispensable tool for our users.

Our solution is the key to unlocking new possibilities and achieving success. By choosing our solution, users can trust

Project Design Phase Proposed Solution Template

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Proposed Solution:

Our proposed solution is designed to address the specific needs and pain points of our target market. It is a comprehensive and innovative approach that leverages cutting-edge technology and best practices to deliver exceptional results.

The key components of our proposed solution include:

- A user-friendly and intuitive interface that makes it easy to navigate and use
- Advanced analytics and reporting capabilities that provide valuable insights and help inform decision-making
- Robust security measures that protect sensitive data and prevent unauthorized access
- Scalable and flexible architecture that can adapt to changing needs and requirements

By implementing our proposed solution, users can expect to achieve significant benefits, including:

- Improved efficiency and productivity
- Enhanced decision-making and strategic planning
- Increased security and reduced risk
- Better scalability and flexibility to adapt to changing needs

Our proposed solution is designed to be highly customizable, allowing users to tailor it to their specific needs and requirements. With a modular architecture and flexible configuration options, users can easily integrate our solution with their existing systems and workflows, ensuring a seamless and efficient implementation process. This customization capability enables users to maximize the value of our solution and achieve their desired outcomes.

Implementation Plan

We propose a phased implementation approach to ensure a smooth and efficient rollout of our solution. The implementation plan will include the following stages: requirements gathering, configuration and customization, testing and quality assurance, training and deployment, and post-implementation support.

Technical Requirements

Our solution requires a robust and scalable technical infrastructure to ensure optimal performance and reliability. The technical requirements include a dedicated server, high-speed storage, and advanced security measures to protect sensitive data.

Training and Support

We offer comprehensive training and support services to ensure that users can effectively utilize our solution. The training program includes online tutorials, interactive simulations, and on-site training sessions. Our support team is available 24/7 to provide assistance and resolve any technical issues that may arise.

Return on Investment (ROI)

We are confident that our solution will provide a significant return on investment (ROI) for our clients. By

Proposed Solution Template:

Project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	
2.	Idea / Solution description	
3.	Novelty / Uniqueness	
4.	Social Impact / Customer Satisfaction	
5.	Business Model (Revenue Model)	
6.	Scalability of the Solution	

The project team is required to provide detailed information about their proposed solution. Firstly, a clear problem statement is necessary, outlining the specific challenge or issue that the solution aims to address. This should be followed by a concise and detailed description of the proposed solution, including its key features and functionalities.

The team should also highlight the novelty and uniqueness of their solution, explaining what sets it apart from existing solutions and what innovative features it offers. Additionally, the team should consider the potential social impact of their solution, describing how it may improve the lives of users or address a specific social need.

In terms of sustainability, the team should outline their proposed business model, including how they plan to generate revenue and sustain their solution over time. Finally, the team should explain how their proposed solution can be scaled up or down to meet the needs of a growing user base or changing market conditions.

The project team's proposed solution should be grounded in a clear understanding of the problem or challenge it aims to address. This problem statement should be concise, yet detailed, and provide context for the solution that follows. The solution description itself should outline the key features and functionalities of the proposed solution, as well as any relevant technical specifications or requirements.

In addition to describing the solution itself, the team should also highlight its novelty and uniqueness. This could include innovative technologies, unique business models, or creative approaches to solving the problem at hand. By emphasizing what sets their solution apart, the team can demonstrate its potential for impact and differentiation in the market.

The potential social impact of the proposed solution is also an important consideration. The team should think critically about how their solution may improve the lives of users, address specific social needs, or contribute to broader social or environmental goals. This could involve describing the target population or user group, as well as any potential benefits or outcomes associated with the solution.

From a business perspective, the team should outline a clear and compelling revenue model that explains how they plan to generate revenue and sustain their solution over time. This could involve describing key revenue streams, pricing strategies, or partnerships that will support the solution's growth and development.

Project Design Phase

Solution Architecture

Date	15 February 2025
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Project Name	
Maximum Marks	4 Marks

Solution Architecture:

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed, and delivered.

The Solution Architecture outlines the overall design and structure of the proposed solution. It provides a high-level overview of the solution's components, interactions, and interfaces, as well as the technology and infrastructure required to support it.

The Solution Architecture should include a detailed description of the solution's building blocks, such as hardware, software, and networking components. It should also outline the data flows, APIs, and other interfaces that enable communication between these components. Additionally, the Solution Architecture should describe the security measures and protocols in place to protect sensitive data and ensure the integrity of the solution.

The Solution Architecture should also consider scalability, flexibility, and maintainability. It should outline how the solution can be easily expanded or modified to meet changing business requirements, and how it can be integrated with existing systems and infrastructure.

Furthermore, the Solution Architecture should be aligned with industry standards and best practices, and should be designed with reliability, availability, and performance in mind. It should also be documented in a clear and concise manner, using standardized notation and terminology.

Some of the key components of the Solution Architecture may include:

- Hardware and software components
- Data storage and management
- Networking and communication protocols
- Security measures and protocols
- Scalability and flexibility mechanisms
- Integration with existing systems and infrastructure
- Reliability, availability, and performance considerations

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Example - Solution Architecture Diagram:

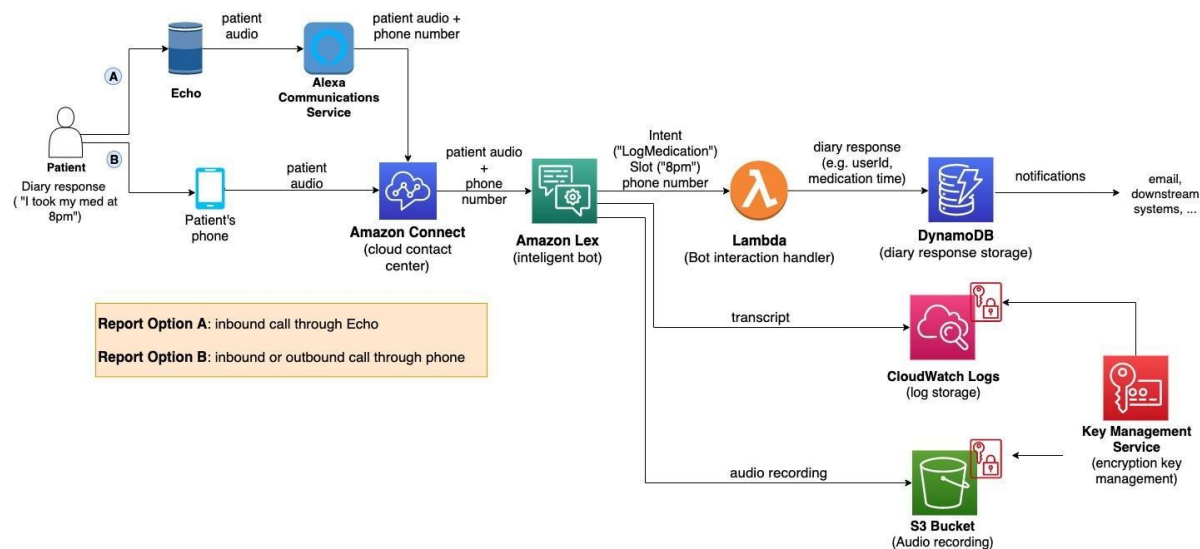


Figure 1: Architecture and data flow of the voice patient diary sample application

Reference: <https://aws.amazon.com/blogs/industries/voice-applications-in-clinical-research-powered-by-ai-on-aws-part-1-architecture-and-design-considerations/>

In conclusion, the Solution Architecture Diagram provides a comprehensive visual representation of the proposed solution's design and structure. It effectively communicates the relationships between various components, interfaces, and data flows, ensuring a clear understanding of the solution's architecture.

The diagram serves as a crucial tool for stakeholders, developers, and architects to validate, refine, and implement the solution. By providing a clear and concise visual representation, the Solution Architecture Diagram facilitates effective communication, collaboration, and decision-making throughout the solution's lifecycle.

The Solution Architecture Diagram is a critical artifact that enables stakeholders to visualize the solution's architecture and make informed decisions. By depicting the relationships between components, interfaces, and data flows, the diagram facilitates a deeper understanding of the solution's design and structure.

Moreover, the Solution Architecture Diagram serves as a foundation for further development, testing, and deployment activities. It provides a clear and concise visual representation of the solution's architecture, enabling developers, architects, and testers to work collaboratively and effectively. By referencing the diagram, stakeholders can ensure that the solution is implemented correctly, meets the required functional and non-functional requirements, and aligns with the overall business strategy.

The Solution Architecture Diagram also plays a vital role in identifying potential risks, dependencies, and scalability issues. By visualizing the solution's architecture, stakeholders can proactively identify areas that may require additional attention, resources, or mitigation strategies. This enables the project team to develop targeted solutions, allocate resources more effectively, and ensure that the solution meets the required quality, reliability, and performance standards.

Furthermore, the Solution Architecture Diagram facilitates communication and collaboration among stakeholders, including business leaders, developers, architects, and end-users. By providing a shared understanding of the solution's architecture, the diagram enables stakeholders to engage in more productive and informed discussions, ensuring that everyone is aligned and working towards a common goal. This, in turn, helps to foster a culture of transparency, accountability, and teamwork, ultimately leading to better solution outcomes and increased business value.

The Solution Architecture Diagram is a living document that evolves alongside the solution. As the solution is developed, tested, and deployed, the diagram should be updated to reflect changes, additions, or modifications. This ensures that the diagram remains accurate, relevant, and useful throughout the solution's lifecycle.