

Phase III - Project Design Phase

Problem Solution Fit

Define CS, fit into CC	1. CUSTOMER SEGMENT(S) CS <ul style="list-style-type: none">Pharmaceutical companiesMedical research institutionsClinical trial management teamsHealthcare IT admins	6. CUSTOMER CONSTRAINTS CC <ul style="list-style-type: none">Limited technical knowledge among non-IT usersBudget constraints for enterprise-level solutionsStrict regulatory compliance (HIPAA, GDPR)Need for offline access in some field operations	5. AVAILABLE SOLUTIONS AS <ul style="list-style-type: none">Google Forms, Typeform, JotformInternal IT-built toolsCRM-integrated forms (Salesforce, Zoho)Pros: Easy to deployCons: Lack pharma-specific features, low security/compliance, limited customization	Explore AS, differentiate
	2. JOBS-TO-BE-DONE / PROBLEMS J&P <ul style="list-style-type: none">Need to collect and manage form-based data for prescriptions, patient feedback, surveys, etc.Lack of easy-to-use, customizable tools for form creation without IT dependencySecurity and compliance concerns in handling medical dataDesire to automate repetitive data collection processes	9. PROBLEM ROOT CAUSE RC <ul style="list-style-type: none">Lack of pharma-specific, secure, easy-to-use form building toolsGeneral-purpose form builders don't align with compliance needsExisting tools are too technical or too rigid	7. BEHAVIOUR BE <ul style="list-style-type: none">Workarounds using Excel sheets, emails, paper formsAssigning form-building tasks to developersManual aggregation of form responsesTrial-and-error with free online tools	
Focus on J&P, tap into BE, understand RC	3. TRIGGERS TR <ul style="list-style-type: none">Growing need for digitized, contactless interactions post-pandemicIncreasing regulations for better data handling in pharma and healthcareCompetitor adoption of smarter digital toolsPressure to reduce data entry errors and operational delays	10. YOUR SOLUTION SL <p>Medley Pharma is a dynamic form builder tailored for the pharmaceutical industry.</p> <ul style="list-style-type: none">Drag-and-drop interface for non-tech usersBuilt-in templates for prescriptions, surveys, and trialsCompliance-ready (SSL, CAPTCHA, encryption)Secure storage with integration-ready backendReal-time preview and validationAccess control for sensitive dataOffline submission support	8. CHANNELS of BEHAVIOUR CH <p>8.1 ONLINE</p> <p>Company dashboards, internal portals, CRM software</p>	Extract online & offline CH of BE
	4. EMOTIONS: BEFORE / AFTER EM <ul style="list-style-type: none">Before: Frustration, dependency on developers, fear of data leaksAfter: Confidence, control over customization, relief due to automated compliance & security		<p>8.2 OFFLINE</p> <p>Field visits, clinics, customer care desks collecting data manually</p>	
Identify strong TR & EM				

The **Problem–Solution Fit Canvas** helped us align our product vision with the actual needs and behavior of our target audience. Through research and user interaction, we identified that pharmaceutical companies often struggle with form creation due to a lack of technical resources and regulatory constraints. Existing tools either lacked flexibility or failed to meet healthcare compliance standards.

By mapping out the user journey, their pain points, triggers, and emotional states, we refined our solution – **Medley Pharma** – to specifically address these gaps. The solution allows pharma professionals to build secure, compliant, and flexible forms without writing a single line of code. This canvas ensured that our approach wasn't just technically feasible but also user-centric and adoption-ready.

Proposed Solution

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Many individuals and organizations struggle with creating professional, customized online forms without technical expertise. Managing submissions, ensuring data security, and integrating with other tools is also a challenge.
2.	Idea / Solution description	Medley Pharma is an intuitive and versatile software solution for building and managing online forms. It offers drag-and-drop features, a variety of input fields, design customization, data analytics, and third-party integrations to streamline data collection and form management.
3.	Novelty / Uniqueness	Unlike standard form builders, Medley Pharma provides complete design control, robust data security features, and seamless integration with external services. It also includes built-in analytics and visualization tools, making it a one-stop solution.
4.	Social Impact / Customer Satisfaction	The tool enables non-technical users—such as educators, researchers, and small business owners—to efficiently collect and manage data. This enhances user satisfaction, saves time, and increases digital accessibility.
5.	Business Model (Revenue Model)	Medley Pharma can follow a Freemium model—offering basic features for free and advanced analytics, integrations, and design options under a subscription-based premium plan. Enterprise licensing and white-labeling options could also be offered.

6.	Scalability of the Solution	The platform is designed to handle increasing form submissions and users efficiently. With a cloud-based backend and modular architecture, it can scale to accommodate large enterprises and high-volume usage without compromising performance.
----	------------------------------------	--

Solution Architecture

Medley Pharma is a dynamic form management platform built using the **MERN (MongoDB, Express.js, React.js, Node.js)** stack. Its architecture is designed to effectively bridge the gap between business needs and technology by providing a secure, customizable, and scalable platform for online data collection.

1. Finding the Best Tech Solution for Business Problems

Medley Pharma addresses common challenges in online form creation and data collection, such as:

- The need for intuitive form-building tools.
- Secure handling of user data.
- Integration with third-party applications for workflow automation.

The MERN stack was selected for its flexibility, performance, and large ecosystem:

- MongoDB offers a NoSQL document structure for flexible form and response storage.
- Express.js and Node.js efficiently handle backend logic and API services.
- React.js provides a smooth, dynamic, and user-friendly interface for form creation and visualization.

2. Describing the Software Architecture to Stakeholders

Medley Pharma follows a **3-tier architecture**:

- Presentation Layer (React.js): Handles UI and user interaction for form design and submission.

- Application Layer (Express.js + Node.js): Processes form logic, validation, and handles API routes.
- Data Layer (MongoDB): Stores user data, form definitions, and submission records.

Other features include:

- Real-time feedback & auto-save forms.
- Visual customization (themes, branding).
- Embedded analytics & report generation (charts/graphs).

3. Defining Features, Development Phases, and Requirements

Key Features:

- Drag-and-drop form builder.
- Multiple input types (text, dropdown, checkbox, file uploads).
- CAPTCHA & SSL support.
- Data export in CSV/Excel formats.
- Integration with email, Slack, Google Sheets, etc.

Development Phases:

1. Phase 1 – Core Form Builder UI using React.js.
2. Phase 2 – Backend Logic & Database Design with Express and MongoDB.
3. Phase 3 – Security & Integrations (CAPTCHA, APIs).
4. Phase 4 – Reporting Tools (charts, exports).
5. Phase 5 – Hosting & Performance Optimization (load balancers, CDN, caching).

Requirements:

- Responsive UI across devices.
- Role-based access control for admin and users.
- Reliable uptime with scalable architecture.

4. Providing Specifications for Managing and Delivering the Solution

Medley Pharma adheres to best practices in software delivery:

- Version Control: Git & GitHub for collaborative development.

- CI/CD Pipelines: For automated testing and deployment.
- Containerization: Using Docker for easier deployment and scalability.
- Cloud Deployment: Firebase or IBM Cloud for hosting and availability.
- Monitoring: Logs and analytics to track performance and user activity.

