

# MEDLEY PHARMA - PROJECT REPORT

## 1. INTRODUCTION

### 1.1 Project Overview

Medley Pharma is a dynamic, feature-rich web application developed using the MERN stack (MongoDB, Express.js, React.js, Node.js), designed to simplify and enhance the process of creating and managing online forms. With a focus on usability, customization, and data security, the platform caters to a wide range of users—from small businesses and educational institutions to research organizations and event planners—who require efficient ways to collect, organize, and analyze data.

In today's digital age, forms are widely used for registrations, feedback collection, patient intake, surveys, and much more. However, many existing solutions either offer rigid templates or require programming knowledge for customization. Medley Pharma addresses this gap by offering a no-code, drag-and-drop form builder that empowers users to create interactive, responsive, and visually consistent forms tailored to their unique requirements.

The platform supports a variety of field types, including but not limited to text inputs, radio buttons, dropdowns, checkboxes, file uploads, date pickers, and ratings. Users can arrange these fields with full control over the layout, apply field-specific validation rules, and design forms that reflect their brand's visual identity through customizable themes, fonts, and color palettes.

What truly sets Medley Pharma apart is its integrated support for security features like CAPTCHA to prevent spam submissions, SSL encryption for secure data transmission, and role-based access control to manage form data responsibly. In addition, the application seamlessly integrates with third-party tools such as Google Sheets, email services, and cloud storage, enabling automated workflows and real-time notifications.

Beyond form creation, Medley Pharma also simplifies data handling. It includes robust data visualization tools that allow users to generate real-time insights in the form of charts, graphs, and downloadable reports. These insights are crucial for making informed decisions based on collected data, especially in sectors like healthcare, education, and customer service.

### 1.2 Purpose

The core objective of Medley Pharma is to provide a reliable, flexible, and secure digital platform for designing, managing, and analyzing online forms without requiring users to write a single line of code. This project was initiated with the intention of solving a common set of challenges observed across different industries and user types.

For example, consider a **healthcare clinic** that needs to collect pre-appointment patient information online. Using traditional methods such as printed forms or email-based data entry not only wastes time but also leads to errors and data loss. With Medley Pharma, clinic administrators can quickly design a HIPAA-friendly, secure intake form that patients can fill out online, saving time and reducing the workload on staff.

Similarly, an **educational institution** conducting a student feedback survey often struggles with low response rates or scattered data. Medley Pharma enables them to design mobile-friendly, easy-to-access feedback forms, customize questions based on subjects or instructors, and instantly generate reports to evaluate teaching effectiveness.

For **event organizers**, managing RSVPs, collecting preferences, and handling last-minute registrations becomes seamless through the customizable and responsive forms offered by the platform.

The platform's purpose extends beyond just form creation—it also emphasizes **data privacy, user autonomy, and actionable insights**. By combining an intuitive interface with modern development tools and best practices in data security, Medley Pharma empowers users to focus on what truly matters: **understanding and acting on the data they collect**.

## 2. IDEATION PHASE

### 2.1 Problem Statement

In today’s digital world, the ability to create and manage online forms has become essential across industries—be it in healthcare, education, event management, business operations, or research. However, while the demand for customizable and responsive form solutions is growing rapidly, existing tools in the market often fall short in meeting the practical needs of a diverse user base. Most platforms are either overly simplistic with limited functionality or too complex, requiring users to have a certain level of technical expertise, especially in coding, layout structuring, or API integrations. This creates a significant barrier for individuals and small to medium-sized organizations who lack access to technical resources but still need to create tailored, secure, and data-driven forms.

The gap becomes more apparent in scenarios where users need to not just collect data, but also customize the appearance of their forms, ensure brand consistency, manage conditional logic, secure submissions, and visualize the data—all within a user-friendly interface. Many form creation tools restrict users to pre-defined templates, offer limited customization options, or fail to provide a flexible workflow for form management. Moreover, crucial features such as CAPTCHA protection, SSL encryption, third-party integration, and real-time analytics are often either missing or locked behind expensive paywalls.

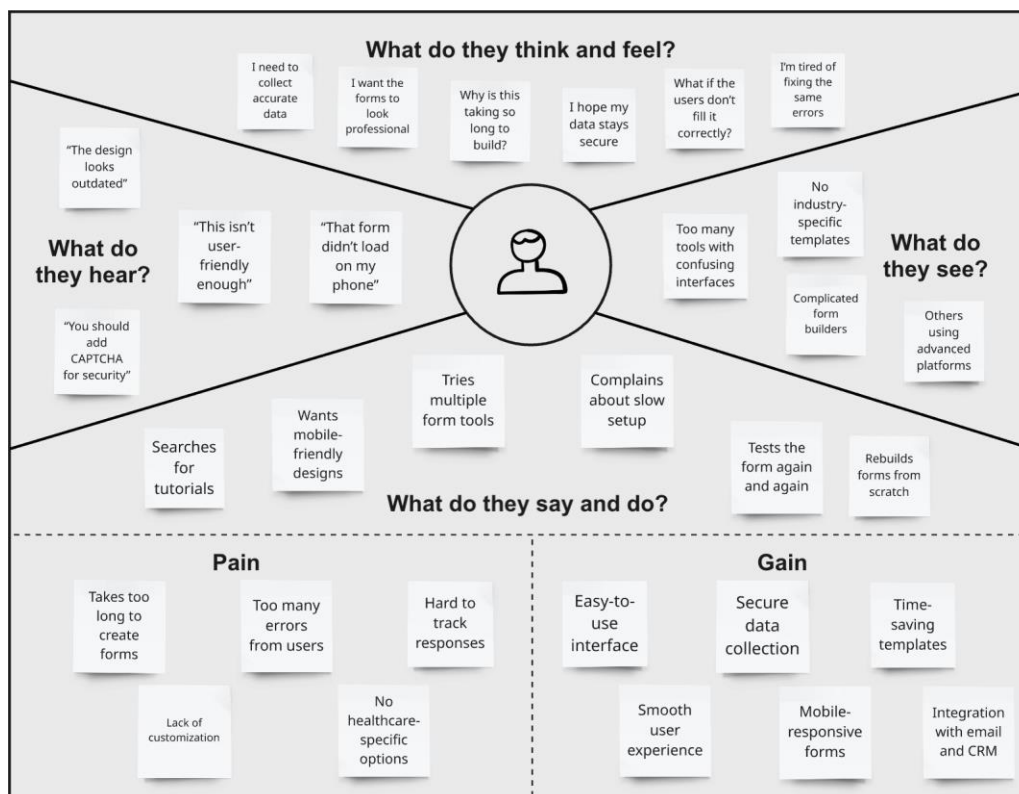
From a user experience perspective, form creation should not be a bottleneck that consumes valuable time and effort. Yet, many users—such as administrative staff, educators, researchers, and entrepreneurs—find themselves stuck with inefficient solutions or forced to rely on external developers for simple requirements. These inefficiencies not only slow down productivity but also affect the quality and accuracy of data collection.

Given this context, there is a clear need for a robust, user-friendly, and highly customizable form builder that empowers non-technical users to create professional-grade forms without the usual limitations. The ideal solution should offer flexibility in design, a rich variety of field types, secure data handling, visual data analytics, and seamless integrations—all while being easy to use and accessible to a broad range of users. Medley Pharma aims to address this gap by providing a dynamic platform that streamlines form creation, management, and data visualization through a no-code, drag-and-drop interface enriched with essential security and workflow features.

Problem Statement (PS)	I am (Customer)	I’m trying to	But	Because	Which makes me feel
1	A small business	Create customized	I have to rely on expensive	Most tools are either	Frustrated and restricted


	owner	forms for collection customer feedback and registrations	tools or hire developers	costly, complex, or lack flexibility	in digital growth
2	A college event coordinator	Design a registration form that matches the event branding and logic	Tools available are rigid and hard to personalize	They don't support conditional logic or visual customization	Disappointed and unable to deliver a seamless experience
3	A researcher conducting surveys	Collect structured responses securely	Free platforms don't offer proper data protection	They lack SSL, CAPTCHA, and advanced privacy settings	Worried and hesitant to use them for real data

## 2.2 Empathy Map



## 2.3 Brainstorming

### Step-1: Team Gathering, Collaboration and Select the Problem Statement



## Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

⌚ 10 minutes to prepare  
🕒 1 hour to collaborate  
👥 2-8 people recommended

➔

### Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

⌚ 10 minutes

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**A Team gathering**  
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

**B Set the goal**  
Think about the problem you'll be focusing on solving in the brainstorming session.

**C Learn how to use the facilitation tools**  
Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#) ➔

1

### Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

⌚ 5 minutes

**PROBLEM**

How might we make it easier and more secure for users to create and manage online forms through Medley Pharma?

### Step-2: Brainstorm, Idea Listing and Grouping

2

### Brainstorm

Write down any ideas that come to mind that address your problem statement.

⌚ 10 minutes

**TP**  
You can select a sticky note and hit the pencil icon to start drawing!

**Person 1**

Drag-and-drop form builder

Real-time form preview

Pre-designed templates

**Person 2**

Theme customization (colors/fonts)

CAPTCHA for security

Form cloning feature

**Person 3**

Google Sheets integration

Export data as CSV/PDF

Email notification on submit

**Person 4**

Multi-step form support

Save draft option

SSL encryption

3

### Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

⌚ 20 minutes

**TP**  
Add custom labels to sticky notes to make it easier to find, rename, organize, and integrate relevant ideas as they're within your mind.

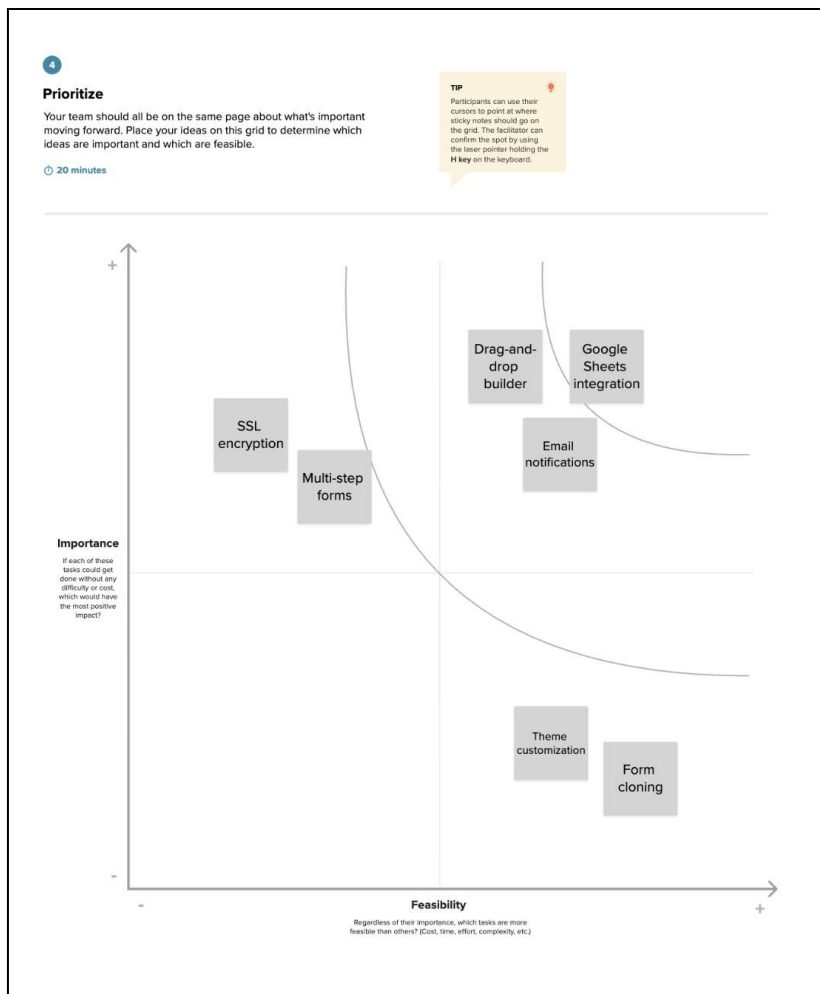
**Form Design & Usability**  
(drag-and-drop, preview, multi-step, templates)

**Data & Security**  
(CAPTCHA, SSL, save drafts, email alerts)

**Integration & Export**  
(Google Sheets, CSV/PDF export, cloning)

**Customization**  
(theme colors, fonts)

### Step-3: Idea Prioritization



Our team conducted a structured brainstorming session to improve the usability, security, and flexibility of Medley Pharma, a dynamic tool for creating and managing online forms. The session followed the typical three-step design thinking process: defining the problem, generating ideas, and prioritizing solutions.

We began by framing our problem statement as:

**“How might we make it easier and more secure for users to create and manage online forms through Medley Pharma?”**

With this question as our guide, each of the four team members contributed three unique ideas, resulting in a total of 12 key suggestions. We focused on four main themes that emerged naturally from the brainstorming:

- **Form Design & Usability:** Ideas like drag-and-drop form builder, real-time preview, and multi-step forms were proposed to make the tool more intuitive and user-friendly.

- **Data & Security:** Ensuring user data security was a core concern. Suggestions included CAPTCHA, SSL encryption, and allowing users to save drafts.
- **Integration & Export:** To improve data handling, we discussed integrating Google Sheets and allowing export to formats like CSV and PDF. An email notification feature for new submissions was also considered.
- **Customization Options:** Personalizing form appearance through color and font settings was another suggestion aimed at enhancing user control and brand alignment.

After idea generation, we grouped similar concepts and moved to prioritization based on feasibility and impact. We chose to move forward with high-impact and high-feasibility ideas such as:

- Drag-and-drop builder
- Google Sheets integration
- Email notifications

On the other hand, **more complex or lower-priority ideas** such as multi-step forms and SSL encryption were noted for future consideration but deprioritized for now due to time and implementation constraints.

This session helped us identify clear goals for improving Medley Pharma's user experience while maintaining security and scalability. It also provided a roadmap for short-term development and long-term enhancements.

## 3. REQUIREMENT ANALYSIS

### 3.1 Customer Journey map

STAGES	ENTICE <i>BECOME AWARE</i>	ENTER <i>TRY THE PRODUCT</i>	ENGAGE <i>BUILD &amp; CUSTOMIZE FORMS</i>	EXIT <i>FORM SHARED OR PUBLISHED</i>	EXTEND <i>POST-SUBMISSION &amp; INSIGHTS</i>
STEPS	Discover Medley Pharma through search, ads, or referrals. Land on homepage.	Sign up or start a free trial. Explore dashboard and templates.	Use drag-and-drop builder to create forms. Customize, preview, and test.	Publish form and share via link or embed. Collect submissions.	Analyze responses. Export data or integrate with third-party apps.
INTERACTIONS	<b>People:</b> Influencers, ads, peers. <b>Place:</b> Website, social media. <b>Things:</b> Landing page, promo video.	<b>People:</b> Support bot or help center. <b>Place:</b> Onboarding dashboard. <b>Things:</b> UI tour, tooltips.	<b>People:</b> Team collaborators. <b>Place:</b> Form builder UI. <b>Things:</b> Drag-and-drop tool, preview panel.	<b>People:</b> End-users (form respondents). <b>Place:</b> Public web form. <b>Things:</b> Shareable link, embed code.	<b>People:</b> Admins, clients, managers. <b>Place:</b> Analytics dashboard. <b>Things:</b> Charts, export tools, email alerts.
GOALS & MOTIVATION	Help me find a tool that's easy and secure.	Help me start without too much learning curve.	Help me create forms quickly and customize them.	Help me collect responses safely and professionally.	Help me understand responses and make data-driven decisions.
POSITIVE MOMENTS	Clean UI, demo video is convincing. Easy signup.	Quick setup, pre-designed templates are helpful.	Real-time preview and field options. Responsive design.	Notifications on submission, live tracking.	Data visualization, integration with Google Sheets.
NEGATIVE MOMENTS	Confusion if landing page lacks clarity.	Onboarding feels too text-heavy. Trial limitations unclear.	Lack of guidance for complex form logic.	User drop-offs if form load time is high.	Exporting options limited or require manual work.
AREAS OF OPPORTUNITY	Add use-case based landing content (e.g., healthcare, education). Add short product demo videos.	Improve onboarding with short interactive walkthrough. Allow skip intro option.	Add pre-built logic blocks and conditional flows. Provide auto-save and undo/redo options.	Offer branded URLs and smart share settings.	Auto-send reports via email. Include insights like drop-off points in analytics.

### 3.2 Solution Requirement

#### Functional Requirements Table

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
1	User Registration	- Registration through Form- Registration through Gmail- Registration through LinkedIn
2	User Confirmation	- Confirmation via Email- Confirmation via OTP

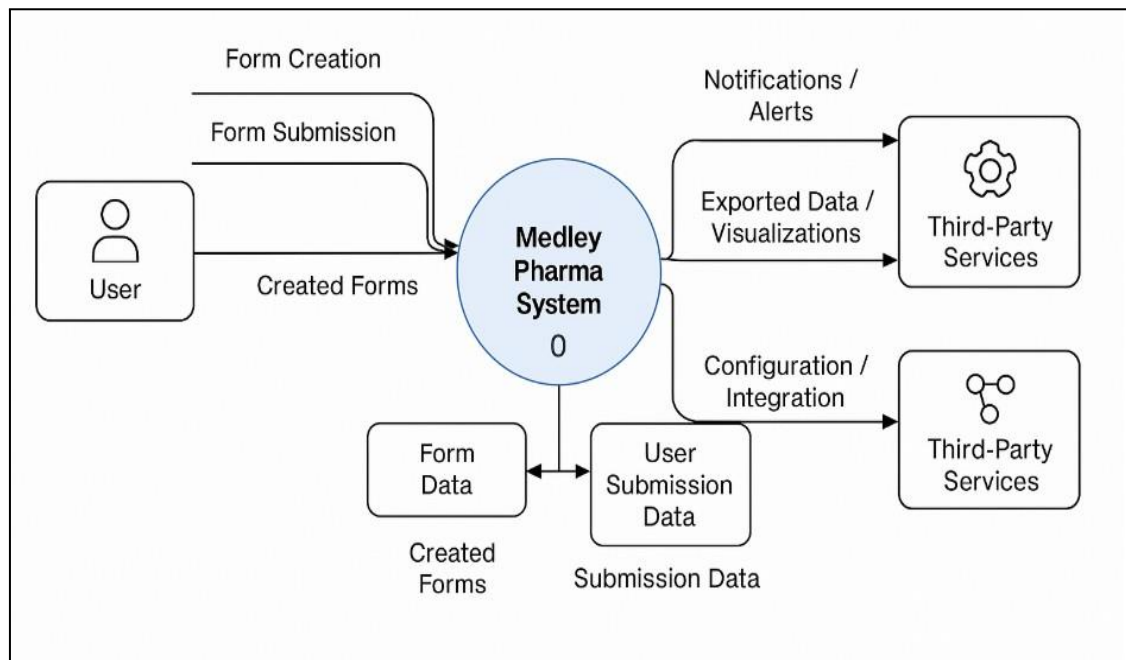


3	Form Creation	- Drag-and-drop form builder- Add various fields (text, checkbox, dropdown, etc.)- Apply validations
4	Form Submission & Storage	- Store responses securely- Support file uploads- Submission tracking and limitations
5	Analytics & Reporting	- Generate charts/graphs from form data- Export responses in CSV/Excel- Visualize trends
6	Integration & Notifications	- Connect with third-party tools (Google Sheets, Mailchimp)- Set email alerts and automated actions on submission

### Non-functional Requirements Table

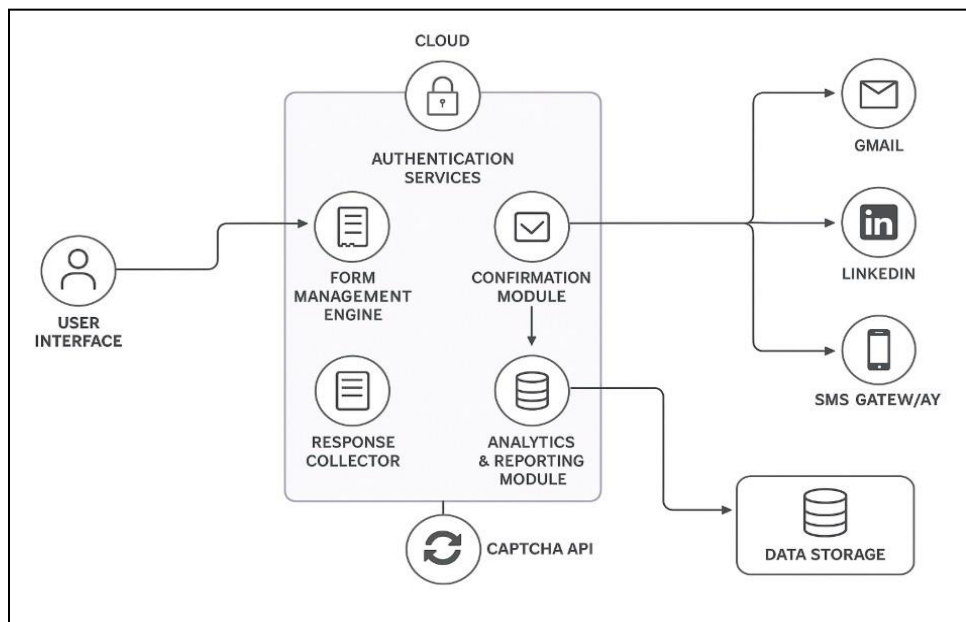
FR No.	Non-Functional Requirement	Description
1	Usability	Intuitive drag-and-drop interface for easy form creation without technical knowledge
2	Security	SSL encryption for data, CAPTCHA to prevent spam, secure authentication methods
3	Reliability	System should ensure zero data loss and smooth submission handling under load
4	Performance	Fast form load time, quick processing of submissions, optimized data storage
5	Availability	24/7 uptime with minimal downtime for maintenance or updates
6	Scalability	Capable of handling large number of users/forms and high submission volumes

### 3.3 Data Flow Diagram



### 3.4 Technology Stack

#### Technical Architecture:



**Table-1: Technical Architecture**

S.No	Component	Description	Technology
1	User Interface	How users interact with the platform to create and manage forms (drag-and-drop UI)	HTML, CSS, JavaScript, ReactJS / Angular
2	Application Logic-1	Handles form creation (drag and drop interface, layout customization)	JavaScript / ReactJS Logic / Node.js
3	Application Logic-2	Manages form submissions, validations, and CAPTCHA integration	Express.js / Node.js, reCAPTCHA API
4	Application Logic-3	Handles analytics, report generation (charts, graphs) from responses	Chart.js / D3.js / Python (Flask or FastAPI for back-end)
5	Database	Stores user profiles, form metadata, and submitted data	MySQL / MongoDB
6	Cloud Database	Cloud-hosted storage for form data for scalability	IBM DB2 / IBM Cloudant / Firebase Realtime DB
7	File Storage	For storing uploaded files from form submissions	IBM Cloud Object Storage / Firebase Storage
8	External API-1	For email notifications on form submissions	SendGrid API / SMTP APIs
9	External API-2	For third-party integration and automation (e.g., Google Sheets, Slack)	Zapier API / Google Sheets API
10	Machine Learning Model	(Optional/Future) Smart suggestions for form field types based on title/content entered	ML Model using Python & scikit-learn (if implemented)
11	Infrastructure (Server / Cloud)	Application hosted on cloud platforms with secure deployment	IBM Cloud / Kubernetes / Docker / Firebase Hosting

**Table-2: Application Characteristics**

<b>S.No</b>	<b>Characteristics</b>	<b>Description</b>	<b>Technology Used</b>
1	Open-Source Frameworks	Medley Pharma uses open-source frameworks for building responsive UI and scalable backend services.	ReactJS / Node.js / Express.js / Chart.js / MongoDB
2	Security Implementations	Data security is ensured through SSL encryption for form submissions, CAPTCHA to prevent bots, and role-based access control.	SSL, reCAPTCHA, HTTPS, SHA-256 Hashing, JWT (Token Auth)
3	Scalable Architecture	Built with a modular design using a 3-tier architecture (Presentation, Logic, and Data Layer) enabling independent scaling of each layer.	Node.js backend, React frontend, MongoDB database, Docker
4	Availability	Ensured via cloud hosting with distributed architecture and use of load balancers for high uptime and fault tolerance.	IBM Cloud / Firebase Hosting, Load Balancers, Docker Swarm
5	Performance	Designed for high performance using CDN for static assets, data caching, and optimized queries to support multiple form submissions per second.	CDN (Cloudflare), Redis (Caching), MongoDB indexing

# 4. PROJECT DESIGN

## 4.1 Problem Solution Fit

Define CS, fit into CC	<b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span> <ul style="list-style-type: none"> <li>Pharmaceutical companies</li> <li>Medical research institutions</li> <li>Clinical trial management teams</li> <li>Healthcare IT admins</li> </ul>	<b>6. CUSTOMER CONSTRAINTS</b> <span>CC</span> <ul style="list-style-type: none"> <li>Limited technical knowledge among non-IT users</li> <li>Budget constraints for enterprise-level solutions</li> <li>Strict regulatory compliance (HIPAA, GDPR)</li> <li>Need for offline access in some field operations</li> </ul>	<b>5. AVAILABLE SOLUTIONS</b> <span>AS</span> <ul style="list-style-type: none"> <li>Google Forms, Typeform, Jotform</li> <li>Internal IT-built tools</li> <li>CRM-integrated forms (Salesforce, Zoho)</li> <li>Pros: Easy to deploy</li> <li>Cons: Lack pharma-specific features, low security/compliance, limited customization</li> </ul>	Explore AS, differentiate
	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <span>J&amp;P</span> <ul style="list-style-type: none"> <li>Need to collect and manage form-based data for prescriptions, patient feedback, surveys, etc.</li> <li>Lack of easy-to-use, customizable tools for form creation without IT dependency</li> <li>Security and compliance concerns in handling medical data</li> <li>Desire to automate repetitive data collection processes</li> </ul>	<b>9. PROBLEM ROOT CAUSE</b> <span>RC</span> <ul style="list-style-type: none"> <li>Lack of pharma-specific, secure, easy-to-use form building tools</li> <li>General-purpose form builders don't align with compliance needs</li> <li>Existing tools are too technical or too rigid</li> </ul>	<b>7. BEHAVIOUR</b> <span>BE</span> <ul style="list-style-type: none"> <li>Workarounds using Excel sheets, emails, paper forms</li> <li>Assigning form-building tasks to developers</li> <li>Manual aggregation of form responses</li> <li>Trial-and-error with free online tools</li> </ul>	
Identify strong TR & EM	<b>3. TRIGGERS</b> <span>TR</span> <ul style="list-style-type: none"> <li>Growing need for digitized, contactless interactions post-pandemic</li> <li>Increasing regulations for better data handling in pharma and healthcare</li> <li>Competitor adoption of smarter digital tools</li> <li>Pressure to reduce data entry errors and operational delays</li> </ul>	<b>10. YOUR SOLUTION</b> <span>SL</span> <p><b>Medley Pharma</b> is a dynamic form builder tailored for the pharmaceutical industry.</p> <ul style="list-style-type: none"> <li>Drag-and-drop interface for non-tech users</li> <li>Built-in templates for prescriptions, surveys, and trials</li> <li>Compliance-ready (SSL, CAPTCHA, encryption)</li> <li>Secure storage with integration-ready backend</li> <li>Real-time preview and validation</li> <li>Access control for sensitive data</li> <li>Offline submission support</li> </ul>	<b>8. CHANNELS of BEHAVIOUR</b> <span>CH</span> <p><b>8.1 ONLINE</b></p> <p>Company dashboards, internal portals, CRM software</p> <p><b>8.2 OFFLINE</b></p> <p>Field visits, clinics, customer care desks collecting data manually</p>	Extract online & offline CH of BE
	<b>4. EMOTIONS: BEFORE / AFTER</b> <span>EM</span> <ul style="list-style-type: none"> <li>Before: Frustration, dependency on developers, fear of data leaks</li> <li>After: Confidence, control over customization, relief due to automated compliance &amp; security</li> </ul>			

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.

## 4.2 Proposed Solution

S.No	Parameter	Description
1.	<b>Problem Statement (Problem to be solved)</b>	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.	<b>Idea / Solution description</b>	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.	<b>Novelty / Uniqueness</b>	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.	<b>Social Impact / Customer Satisfaction</b>	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.	<b>Business Model (Revenue Model)</b>	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.	<b>Scalability of the Solution</b>	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.
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## 4.3 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).

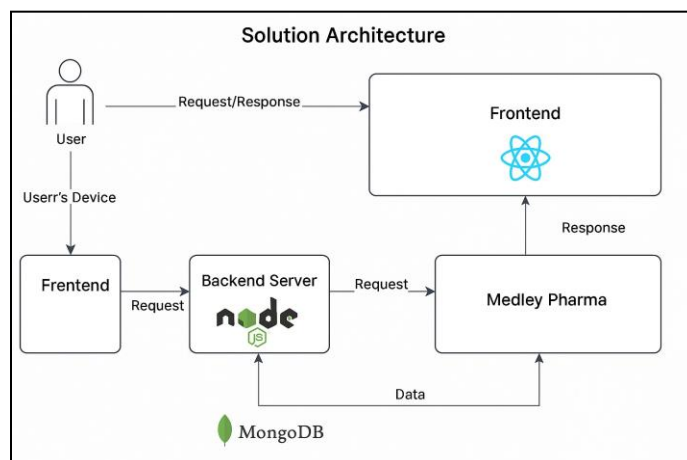
#### Requirements:

- 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.





## 5. PROJECT PLANNING & SCHEDULING

### 5.1 Project planning

#### Product Backlog and Sprint Schedule for Medley Pharma

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority
Sprint-1	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming it.	2	High
Sprint-1	Registration	USN-2	As a user, I will receive a confirmation email after registration.	1	High
Sprint-2	Registration	USN-3	As a user, I can register for the application using Facebook.	2	Low
Sprint-2	Registration	USN-4	As a user, I can register for the application using Gmail.	2	Medium
Sprint-1	Login	USN-5	As a user, I can log in using my email and password.	1	High

Sprint-2	Form Creation	USN-6	As a user, I can create a new form with text, dropdown, and checkbox fields.	3	High
Sprint-2	Form Customization	USN-7	As a user, I can customize the form layout, colors, and fonts.	2	Medium
Sprint-3	Form Validation & Security	USN-8	As a user, I can enable CAPTCHA and set submission limits to protect form data.	2	High
Sprint-3	Form Integration	USN-9	As a user, I can connect forms to third-party apps (e.g., Google Sheets, Mailchimp).	3	Medium
Sprint-4	Form Analytics	USN-10	As a user, I can view charts and graphs of form responses.	3	High
Sprint-4	Form Export	USN-11	As a user, I can export form data in CSV, PDF, or Excel formats.	2	High
Sprint-4	Notification	USN-12	As a user, I receive a notification or email after each form submission.	1	Medium

Project Tracker, Velocity & Burndown Chart

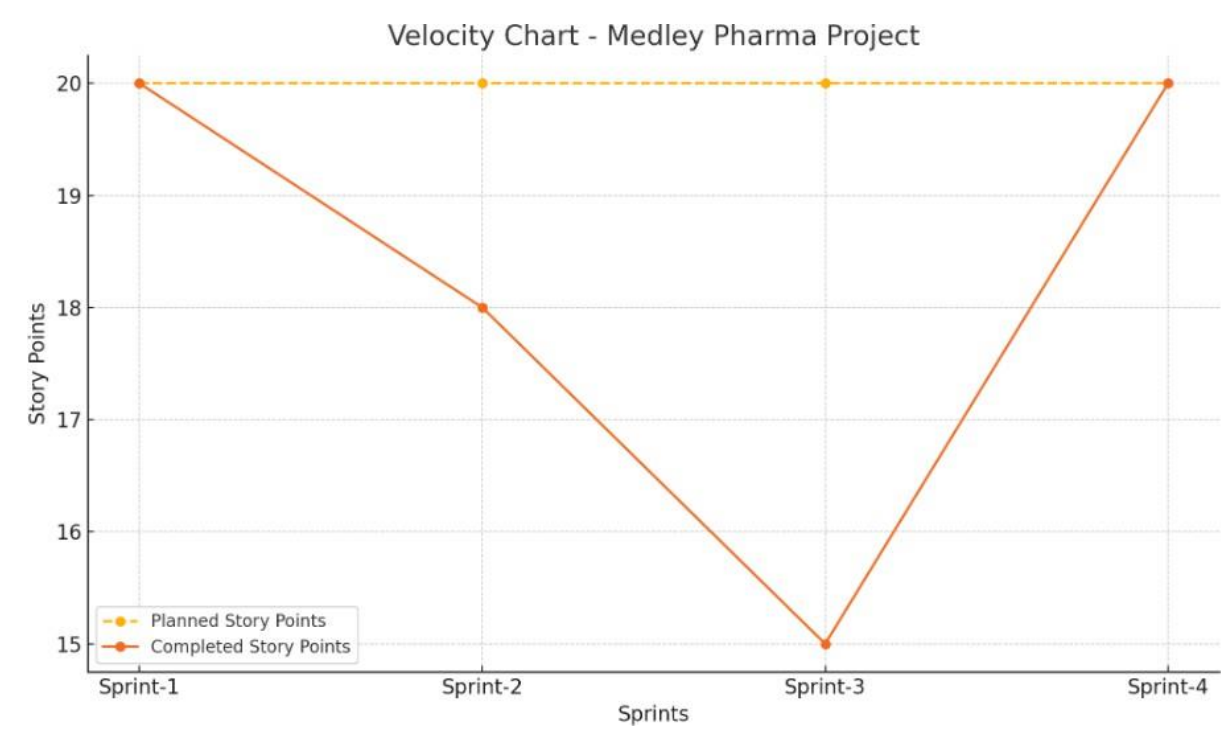
Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	01 Apr 2025	06 Apr 2025	20	06 Apr 2025
Sprint-2	20	6 Days	07 Apr 2025	12 Apr 2025	18	13 Apr 2025
Sprint-3	20	6 Days	14 Apr 2025	19 Apr 2025	15	20 Apr 2025
Sprint-4	20	6 Days	21 Apr 2025	26 Apr 2025	20	26 Apr 2025

Velocity Chart (Summary)

Sprint	Story Points Completed
Sprint-1	20
Sprint-2	18
Sprint-3	15

Sprint-4	20
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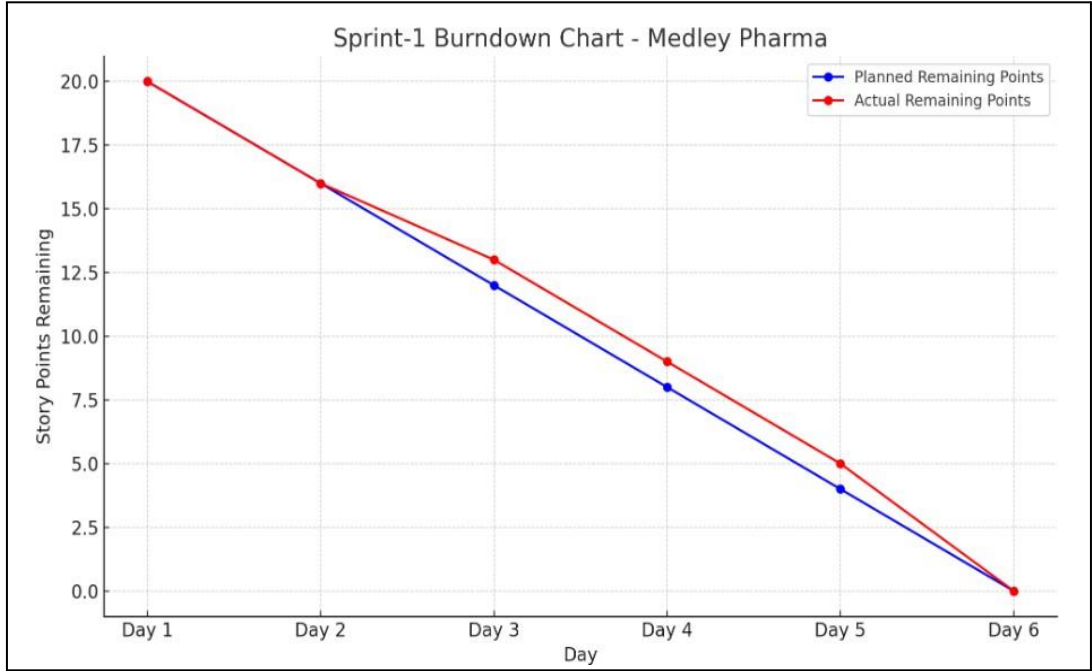
**Average Velocity** =  $(20 + 18 + 15 + 20) / 4 = 18.25$  Story Points per Sprint.



**Burndown Chart Data**

Day	Planned Remaining Points	Actual Remaining Points
Day 1	20	20
Day 2	16	16
Day 3	12	13

Day 4	8	9
Day 5	4	5
Day 6	0	0



**Agile Sprint Breakdown for Medley Pharma**

Sprint 1 (5 Days)

**Epic: User Registration and Form Builder UI**

Task	Story	Story Points	Complexity
Design registration page (email/password)	Story 1	2	Easy

Implement user registration logic	Story 2	3	Moderate
Develop basic form builder UI (drag & drop)	Story 3	5	Difficult

**Total Story Points (Sprint 1): 10**

Sprint 2 (5 Days)

**Epic: Form Input Features & Security**

Task	Story	Story Points	Complexity
Add support for dropdowns, checkboxes, file uploads	Story 4	3	Moderate
Implement field validation (text, number, required, etc.)	Story 5	2	Easy
Integrate CAPTCHA & SSL encryption	Story 6	5	Difficult
Set submission limits and form access control	Story 7	2	Easy

**Total Story Points (Sprint 2): 12**

**Velocity Calculation**

Total Story Points = 10 (Sprint 1) + 12 (Sprint 2) = 22

No. of Sprints = 2

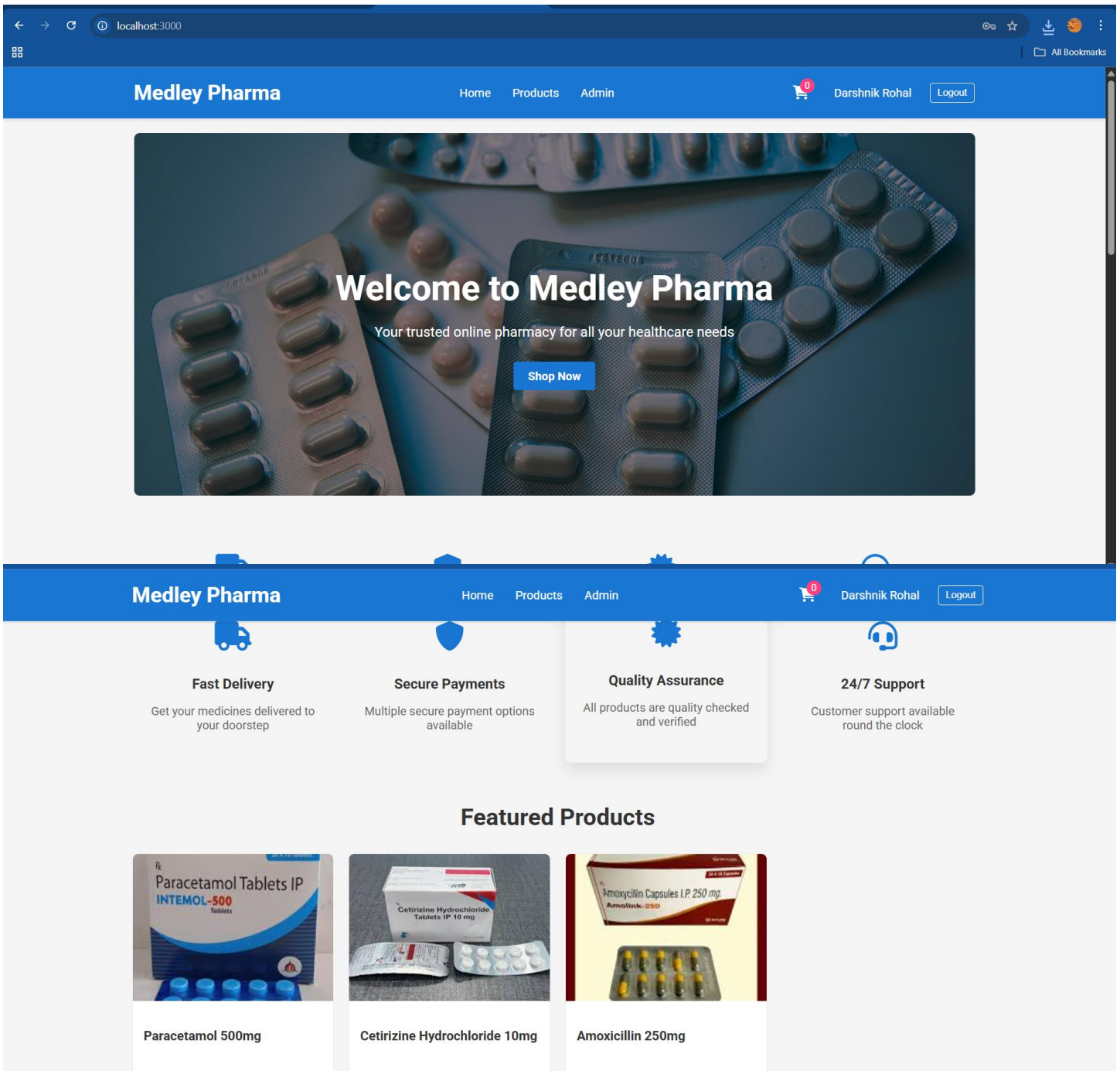
Velocity = Total Story Points / Number of Sprints

Velocity = 22 / 2 = 11 Story Points per Sprint

**Team's velocity is 11 Story Points per Sprint**

## 6. RESULTS

### 6.1 Output Screenshots



Medley Pharma

HomeProductsAdmin

0

Darshnik Rohal

Logout

Admin Panel

DashboardProductsOrdersUsers

Dashboard

Total Products

0

Total Orders

0

Total Users

0

Total Revenue

\$0.00

Recent Orders

View All

Order ID	Customer	Date	Amount	Status
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Medley Pharma

HomeProductsAdmin

0

Darshnik Rohal




Logout

Admin Panel

DashboardProductsOrdersUsers

Products Management

+ Add Product

Image	Name	Category	Price	Stock	Actions
	Paracetamol 500mg	Antidiabetic	\$4.99	120	<div><div></div><div></div></div>
	Cetirizine Hydrochloride 10mg	Antihistamine	\$6.50	80	<div><div></div><div></div></div>
	Amoxicillin 250mg	Antibiotic	\$8.75	65	<div><div></div><div></div></div>





Login

Register

## Create an Account

Full Name

Email

Password

Confirm Password

## 7. ADVANTAGES & DISADVANTAGES

### 7.1 Advantages of Medley Pharma

1. **User-Friendly Interface**
  - The drag-and-drop functionality makes form creation simple and intuitive, even for users with minimal technical knowledge.
2. **Highly Customizable**
  - Complete control over visual aspects (colors, fonts, layout, branding) allows users to match forms with their organization's identity.
3. **Versatile Form Fields**
  - Supports a wide variety of input types (text, dropdowns, file upload, checkboxes), making it adaptable to multiple use-cases like feedback, registration, surveys, etc.
4. **Data Security & Integrity**
  - CAPTCHA, SSL encryption, and submission limits ensure that form data is secure, spam-free, and reliable.
5. **Real-Time Data Visualization**
  - Automatically generated reports, charts, and graphs help users analyze form responses quickly and effectively.
6. **Third-Party Integration**
  - Easy integration with email, Slack, Google Sheets, and more allows automation of tasks like sending responses, triggering notifications, or updating databases.
7. **Responsive Design**
  - The forms are mobile-friendly and accessible across devices, ensuring a smooth user experience.
8. **Data Export**
  - Ability to export form data in formats like CSV or Excel for offline analysis or stakeholder sharing.

### 7.2 Disadvantages of Medley Pharma

9. **No Offline Mode**
  - The platform relies on an internet connection. Users cannot create or submit forms offline.
10. **Performance Constraints at Scale**
  - For a very large number of simultaneous users or high submission volumes, performance tuning and server optimization may be required.
11. **Limited Advanced Logic**
  - While basic validations are supported, complex conditional logic and dynamic form behavior may require additional backend customization.
12. **Dependence on External APIs**

- Integration with third-party services is useful but can lead to disruptions if those services face downtime or API changes.

### **13. Learning Curve for Advanced Customization**

- Non-technical users might find it challenging to implement advanced features like API hooks or form logic without developer support.

### **14. Storage Limitations (Cloud-Based)**

- Depending on hosting or free-tier services, there might be limitations on the amount of data stored or files uploaded.

## 8. CONCLUSION

Medley Pharma stands out as a robust, feature-rich, and user-centric platform designed to simplify and streamline the process of creating, customizing, and managing online forms. Built using the powerful **MERN stack** (MongoDB, Express.js, React.js, and Node.js), the application benefits from full-stack JavaScript development, ensuring a smooth, scalable, and responsive experience both for users and administrators.

From a technical perspective, the use of **MongoDB** for flexible and scalable data storage, **Express.js** and **Node.js** for efficient backend operations, and **React.js** for a highly responsive frontend makes the application capable of handling real-time form creation, dynamic input validation, and secure data submission. The component-based architecture allows for reusability and rapid feature updates, ensuring long-term maintainability.

Functionally, Medley Pharma caters to a wide range of user requirements – from simple surveys and feedback forms to complex registration workflows. Its intuitive **drag-and-drop interface**, rich set of form fields, and customizable layout options make it accessible even to non-technical users, empowering them to create professional-grade forms without writing a single line of code.

Moreover, by prioritizing **data security**, including features like CAPTCHA, SSL encryption, and submission limits, Medley Pharma builds trust and ensures compliance with best practices in user data protection. Seamless integrations with third-party tools and services further enhance its usefulness by automating workflows and simplifying data handling tasks.

In terms of impact, the platform saves time, reduces manual data entry errors, improves the quality of collected information, and enhances the efficiency of decision-making processes. It is especially valuable for organizations that frequently collect user inputs—such as educational institutions, healthcare providers, event organizers, and startups—making Medley Pharma a highly adaptable tool for multiple sectors.

In conclusion, Medley Pharma is not just a form builder—it is a **complete digital form management ecosystem**. With its scalable backend, flexible frontend, and commitment to security and usability, it demonstrates how modern web technologies can be harnessed to solve real-world challenges in data collection and management. As technology evolves, Medley Pharma has strong potential for growth, making it a promising solution in the space of customizable and secure digital forms.

## 9. FUTURE SCOPE

### 1. **AI-Powered Form Suggestions**

- Implement AI algorithms to suggest form questions and layouts based on user goals or past form data.

### 2. **Advanced Logic and Conditional Branching**

- Enable complex conditional logic where certain questions appear only if previous conditions are met.

### 3. **Multi-Language Support**

- Add support for multiple languages, making the tool more accessible globally.

### 4. **Mobile App Development**

- Launch a dedicated mobile app version for offline form creation and local data sync when online.

### 5. **Voice and Speech Input**

- Add voice-to-text capabilities for faster input, especially useful in healthcare or field environments.

### 6. **Integration with AI Analytics Tools**

- Use AI and ML tools to analyze form responses and generate intelligent insights or predictive trends.

### 7. **Blockchain for Data Security**

- Introduce blockchain technology to log form submissions and ensure tamper-proof records for high-stake use-cases.

### 8. **Workflow Automation**

- Allow users to design custom workflows (e.g., if form is submitted → send email → update CRM → notify manager).

### 9. **Template Marketplace**

- Offer a community-driven library of form templates (job applications, school admissions, medical checkups, etc.).

### 10. **Admin Dashboard for Teams**

- Provide role-based dashboards for teams to collaborate on form building, data analysis, and permissions management.

## **10. APPENDIX**

### **10.1 GitHub & Project Demo Link**

**Github :** <https://github.com/DarshnikRohal/MERN--Medley-Pharma>

**Project Demo Link :**

[https://drive.google.com/file/d/140f65Ppcd6F7IZUjgXRHEBuqSWwjVcSX/view?usp=drive\\_link](https://drive.google.com/file/d/140f65Ppcd6F7IZUjgXRHEBuqSWwjVcSX/view?usp=drive_link)