# Custom Chat Platform with Zoho Integrations

**Chat Application** 

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# Summary:

Chat Application is renowned for its innovative contributions to sustainable and energy-efficient engineering. With a diverse clientele across industries such as Built Environment, Clean Energy, and Manufacturing, the company relies heavily on seamless collaboration and efficient project management to deliver exceptional results. However, it faced significant challenges in managing communication between clients and deal managers, which was crucial for ensuring timely and accurate project execution.

To address these challenges, a custom **chat application** was developed in the form of a website. This solution integrated:

- 1. **Zoho Catalyst** for secure and scalable data storage of critical project documents like invoices, quotations, and payment details.
- 2. **Zoho CRM** to automate the creation of new deals, ensuring every project had a structured and centralized workflow.
- Zoho SalesIQ to enable real-time, project-specific communication between clients and deal managers.

The application provided an intuitive platform where users could discuss deals, share project-related documents, and address issues in a streamlined manner. By leveraging these integrated tools, Chat Application significantly enhanced communication efficiency, optimized data management, and ensured smooth project execution. This innovative solution redefined their internal and external workflows, transforming how the company managed client relationships and project processes while staying aligned with their core values of innovation and sustainability.

# Introduction of the company :

Chat Application is a pioneering engineering consulting firm that stands at the forefront of innovation in simulation technologies. Specializing in **Computational**  Fluid Dynamics (CFD) and Computer-Aided Engineering (CAE), the company provides customized solutions tailored to address the complex challenges faced by industries today. Their expertise spans a wide range of sectors, including the **Built Environment, Renewable Energy, Aerospace**, and **Manufacturing**, where precision, sustainability, and efficiency are critical.

Driven by a commitment to environmental stewardship, Chat Application aligns its operations with global green goals, enabling clients to achieve energy-saving and costeffective designs. Through a meticulous science-based approach, the company delivers solutions that optimize energy efficiency while reducing environmental impacts.

Leveraging industry-leading software such as **MSC Cradle**, **MSC NASTRAN**, and **CAESAR**, Chat Application employs advanced simulation methods to refine designs, improve system performance, and reduce development time. Their proven track record reflects their ability to not only meet but consistently exceed client expectations, making them a trusted partner in engineering innovation.

At its core, Chat Application is dedicated to transforming industries through cutting-edge technology and sustainable practices, ensuring a future where engineering excellence meets environmental responsibility.

# The Business of the Company:

Chat Application operates at the intersection of advanced engineering and sustainability, serving industries that require precise and efficient designs. Key offerings include:

- 1. **Micro-climate Modeling**: Using CFD to optimize urban layouts for energy efficiency and comfort.
- 2. HVAC System Optimization: Improving airflow and energy efficiency in buildings.

- 3. **Renewable Energy Engineering**: Enhancing wind and solar farm designs using simulation technology.
- 4. **Industrial Equipment Design**: Predicting and refining system performance using CAE tools.

By integrating technical expertise with sustainability, Chat Application addresses critical challenges like energy efficiency, operational cost reduction, and environmental impact mitigation.

# The Challenges:

The company faced several challenges related to communication and workflow efficiency:

- 1. **Fragmented Communication**: Existing communication channels between clients and deal managers were inefficient, leading to delays and misunderstandings.
- 2. **Data Management Issues**: Project-related documents such as invoices, quotations, and payment details were scattered across systems.
- 3. **Inefficient Deal Tracking**: Managing deals and associated communications required manual interventions, leading to errors and inefficiencies.
- 4. **Lack of Integration**: The absence of a unified platform for deal creation, data storage, and communication made collaboration cumbersome.

# Key Features of the Solution:

To address the challenges faced by Chat Application, a **custom chat application** was developed to serve as a centralized platform for communication, data management, and deal tracking. The platform was designed as a feature-rich website, integrating multiple Zoho technologies and incorporating innovative features to meet the company's specific requirements.

# 1. Zoho Catalyst Integration

a. **Backend Infrastructure**: Catalyst served as the foundation for securely storing critical data such as invoices, quotations, payment records, and chat logs.

b. Large File Management: Integration with Zoho WorkDrive allowed clients to upload large files directly into a dedicated folder created for each deal. This ensured seamless handling of documents without size limitations.

# 2. Zoho CRM Integration

- a. **Automated Deal Management**: Whenever a client initiated a project or inquiry, the system automatically created a corresponding deal in Zoho CRM, ensuring structured workflow and data centralization.
- b. **Deal Stage Tracking**: A **stepper feature** was added to track the progression of deals across various stages, such as inquiry, proposal, negotiation, approval, and completion, giving all stakeholders real-time visibility.
- c. **Centralized Data Access**: All deal-related information was stored and linked within CRM, streamlining processes and reducing errors.

# 3. Zoho SalesIQ Integration

- a. **Real-Time Communication**: SalesIQ powered a real-time chat system between clients and deal managers, enabling efficient project-specific communication.
- b. File Sharing Controls: Deal managers could share documents (e.g., invoices, quotations) directly through the chat interface, which clients could either accept or reject based on their review. This feature ensured controlled and transparent exchanges.

# 4. Custom Chat Application Features

- a. **HTTP Requests for Chat Communication**: As Catalyst did not support advanced communication protocols like WebSocket, the system relied on HTTP requests for sending and receiving messages, ensuring consistent functionality.
- b. Client File Uploads via WorkDrive: While deal managers could send files directly in the chat, clients were restricted to uploading documents into the WorkDrive folder associated with their specific deal. This ensured an organized and centralized repository for client-side contributions.
- c. User-Friendly Interface: Designed to prioritize usability, the website allowed clients and deal managers to navigate easily, upload documents, track deal progress, and communicate effectively.

# How the Platform Works:

The custom chat application was meticulously designed to provide a seamless experience for managing deal-related communication and workflow. Here's a step-by-step breakdown of how the platform operates:

# **1. User Authentication:**

# 1. Login/Signup:

Users log in or sign up through the **Zoho Catalyst native authentication** system. This ensures a secure and streamlined authentication process.

# 2. Redirection to Chat Application:

After successful login, users are redirected to the chat interface, where they can interact with active chats or initiate new ones.

- a. approvals and maintain a clear record of exchanges.
- b. Clients upload their own documents (e.g., contracts, project requirements) into the WorkDrive folder specific to their deal, ensuring a centralized location for clientside submissions.

# 2. Chat Application Interface:

# 1. Sidebar:

- a. Displays a list of all active chats associated with deals.
- b. Includes a **search functionality** to find specific chats quickly.
- c. Offers a logout option for users.

# 2. Chat Window:

- a. Enables real-time communication between the user and the deal manager.
- b. Includes a **stepper** that visually indicates the current stage of the deal (e.g., inquiry, proposal, negotiation, approval, completion).

# **3. Initiating or Accessing Chats:**

# 1. **Opening Existing Chats**:

a. Users can click on any chat from the sidebar to open it in the chat window.

# 2. Starting a New Chat:

- a. A "New Chat" icon is available for initiating a fresh conversation.
- b. Upon starting a new chat, a corresponding entry is created in Zoho SalesIQ, ensuring that the new chat is linked to a specific deal.

# 4. Deal-Associated Functionalities:

## 4.1 WorkDrive Integration:

- a. Each chat is associated with a specific deal.
- b. If a deal is created and linked, a **WorkDrive URL** is enabled in the chat window, allowing users to upload large files directly to the WorkDrive folder dedicated to that deal.
- c. If no deal is associated, the WorkDrive option remains in a **disabled state**.

## 4.2 File Sharing:

## a. Deal Manager's Role:

- i. Files such as quotations and invoices can be shared by the deal manager directly through the chat interface in **SalesIQ**.
- ii. When a file is shared along with message "#q", the user is prompted with accept/reject buttons to review the file and make a decision.

#### b. Client's Role:

 Clients can upload their files (e.g., project specifications, additional requirements) into the linked WorkDrive folder but cannot send files directly via chat.

# 5. Payment Handling:

# **5.1 Payment Button Generation**:

- a. If the deal manager sends "#p" as a message in SalesIQ, a payment button is automatically generated for the user in the chat window.
- b. The user can click this button to make payment for the deal.

## 6. Automatic Chat Closure:

#### 6.1 Idle Chat Closure:

- a. Chats that remain inactive for 1 to 3 hours are automatically closed on the SalesIQ side.
- b. From the user's perspective, the chat remains open and functional, allowing them to send messages as usual.
- c. If a user sends a message to a previously closed chat, it is treated as a **new chat** on the SalesIQ platform while maintaining continuity on the user's side.

## 7. Closed Chat History:

#### 7.1 Accessing Archived Chats:

- a. For closed deals, users can access chat histories and associated attachments through the CRM.
- b. The chat history is automatically saved as a **PDF file** in the CRM, ensuring all communications are securely archived for future reference.

# 8. Workflow Overview:

- 1. Login Navigate to the chat interface.
- 2. Access Chats Open existing chats or initiate new ones.
- 3. File Management Utilize WorkDrive for uploading files or sharing files via SalesIQ.
- 4. Communication Engage in real-time conversations and handle deal-specific tasks.
- 5. **Deal Progress** Use the stepper to monitor deal stages.
- 6. Payment Processing Generate and complete payments directly within the chat.
- Closure and History Archive chats, access closed deal history, and retrieve records via CRM.

# Result of the Implementation:

1. Enhanced Communication: Real-time chat facilitated seamless collaboration between clients and deal managers, reducing delays and misunderstandings.

- 2. **Controlled File Sharing**: The approval-based file sharing system added a layer of transparency and ensured that shared documents were always reviewed.
- 3. **Centralized Data Management**: WorkDrive integration for client uploads and Catalyst for system-wide storage ensured all files were organized and easy to access.
- 4. **Streamlined Workflow**: Automated deal creation, integrated tracking, and clear communication reduced manual errors and bottlenecks.
- 5. **Improved Client Experience**: Clients appreciated the transparent and efficient system, which provided clarity and control over deal-related processes.
- 6. **Cost and Time Savings**: The platform reduced project turnaround time, minimized redundancies, and optimized internal operations.

This solution transformed Chat Application' operational efficiency by providing a cohesive, transparent, and user-friendly platform for managing client-deal interactions while ensuring secure and efficient data handling.

THANK YOU