**Business domain** - Customer Support

**The Problem** - High Volume of Customer Support Requests Slowing Response Time

The current challenge or inefficiency-

1. Average response time: **48 hours**
2. Customer satisfaction score (CSAT): **72%**
3. Support team overwhelmed, leading to **burnout** and **increased churn**

**AI Agent-Based Solution:**

**Deploy an AI-Powered Virtual Customer Support Agent (Chatbot + Email Assistant)**

**Capabilities of the AI Agent:**

* 1. **24/7 Automated Handling** of FAQs, order tracking, returns, password resets, etc.
  2. **Triage and Prioritization** of complex queries for human escalation.
  3. **Sentiment Analysis** to route angry customers to senior agents.
  4. **Multi-language Support** to serve a diverse customer base.

**Implementation Steps:**

* + 1. **Define**:  
       Goal – Reduce first response time to < 1 hour; increase CSAT to > 85%.
    2. **Design**:  
       Agent trained on past support tickets, company policies, and knowledge base.
    3. **Implement**:  
       Integrate with CRM (e.g., Zendesk, Salesforce), website chat, and email system.
    4. **Iterate**:  
       Regularly retrain with new tickets and customer feedback.

**Measurable Outcomes:**

| **Metric** | **Before AI Agent** | **After AI Agent Implementation** |
| --- | --- | --- |
| Avg. Response Time | 48–72 hours | Under 1 minute |
| Ticket Volume (human-handled) | 100% | Reduced by 60–80% |
| Customer Satisfaction (CSAT) | 3.2 / 5 | 4.5 / 5 |
| Cost per Ticket | ₹100–₹150 | ₹20–₹30 |
| Agent Utilization | Overloaded | Focused on complex issues |

**Workflow Example:**

* + - 1. Customer: *"I want to return my order."*
      2. AI Agent: Identifies intent → provides return policy + step-by-step instructions.
      3. If query is complex (e.g., damaged item), it escalates to a human agent.
      4. Learns from the resolution for future improvement.

**Tools/Tech Stack (Example):**

* + - 1. **Dialogflow / Microsoft Bot Framework / Rasa** for conversational design.
      2. **OpenAI APIs** for natural language understanding.
      3. **Zendesk / Freshdesk integration** for ticketing.
      4. **Analytics dashboard** for measuring CSAT, resolution time, etc