

# AI Agent Assignment – Final Submission

**Name:** Rajan Sharma

## **AI Agent Title / Use Case:**

AI Study Revision Assistant – An AI agent that helps students revise topics for exams using short explanations, examples, and quick questions.

## **SECTION 2: PROBLEM FRAMING**

### **1.1 What problem does your AI Agent solve?**

Students often feel confused about what to revise and how to revise effectively before exams. This AI agent helps them break down topics, understand concepts simply, and practice quick revision questions.

### **1.2 Why is this agent useful?**

It saves time, reduces confusion, and provides structured revision tailored to the student's level and subject, improving exam confidence.

### **1.3 Who is the target user?**

College students preparing for semester exams or competitive exams (especially beginners).

### **1.4 What not to include?**

- Full-length textbooks
- Advanced research-level explanations
- Irrelevant motivational content

## **SECTION 3: 4-LAYER PROMPT DESIGN**

### **3.1 INPUT UNDERSTANDING**

Prompt: Understand the student's subject, topic, and difficulty level. If unclear, ask one clarifying question before proceeding.

### **3.2 STATE TRACKER**

Prompt: Remember the subject, topic, and difficulty level during the conversation and reuse it in follow-up responses.

### **3.3 TASK PLANNER**

Prompt: Break the topic into steps – definition, key points, example, and revision questions.

### **3.4 OUTPUT GENERATOR**

Prompt: Respond in clear, student-friendly language using bullet points and examples.

## **SECTION 4: CHATGPT EXPLORATION LOG**

Three prompt iterations were tested and refined to improve clarity and usefulness.

## **SECTION 5: OUTPUT TESTS**

The agent was tested with normal, vague, and invalid inputs to ensure reliability.

## **SECTION 6: REFLECTION**

The assignment helped me understand how prompt design controls AI behavior and how iteration improves output quality.

## **SECTION 7: HACK VALUE**

I simulated memory, handled edge cases, and structured prompts for modular behavior.

# DT Fellowship Simulation Assignment

## Part 1: Bottleneck Diagnosis Using Prompted AI Dialogue

Based on a simulated founder interview of a fast-growing MSME that has hit a growth ceiling, the following prompts were designed to diagnose the core bottleneck.

### Prompt 1: Founder Mindset Exploration

Analyze the founder's language, decision patterns, and emotional cues to identify limiting beliefs related to control, delegation, or risk.

Insight: The bottleneck stems from the founder's mental model, marked by reluctance to delegate and excessive execution ownership.

### Prompt 2: Organizational / Systemic Diagnosis

Evaluate the transcript to identify breakdowns in organizational design, role clarity, and accountability systems.

Insight: Absence of middle-management capability and weak process ownership has created execution dependency on the founder.

### Prompt 3: Constraint-Based Diagnostic Prompt

Using the principle of Consistency, analyze how past successful behaviors may now constrain growth. Avoid assumptions not grounded in the transcript.

Insight: Repetition of early-stage success behaviors has become a structural bottleneck.

**Bottleneck Layer:** Founder Mental Model (Primary), Talent & Process Capability (Secondary)

## Part 2: GRS Report — Growth Readiness Scorecard

### Category 1: Leadership & Decision Systems

Bottlenecks: Founder-centric decisions, lack of delegation framework.

Experiment: Weekly decision delegation review.

AI Prompt: Simulate outcomes if owned by functional leads.

Stage: Delivery Engine Breakdown.

### Category 2: Talent & Role Architecture

Bottlenecks: Role ambiguity, KPI ownership gaps.

Experiment: Outcome-based role redefinition sprint.

AI Prompt: Redesign role for a 3x scaled organization.

Stage: Talent Mismatch.

### Category 3: Customer & Strategy Focus

Bottlenecks: Unclear ICP, reactive product decisions.

Experiment: Monthly customer signal review.

AI Prompt: Cluster signals into growth vs distraction.

Stage: Problem–Market Fit Blur.

## Part 3: Strategic Summary

AI prompting enabled deeper pattern recognition beyond surface symptoms. The key insight is that growth stalls not due to lack of effort, but due to outdated mental models embedded in systems. A Growth Consultant must integrate coaching, analytical rigor, and operational execution to convert insight into

scalable action.

*“The problem is never the problem. The diagnosis is the problem.” — Naval Ravikant*

# DT Fellowship Simulation Assignment – Answers

## Part 1: Funnel Design Simulation

**Lead:** Website form fill, ad click, newsletter signup, or cold outreach response.

**MQL:** Target industry match with multiple engagements and high-intent content interaction.

**SQL:** Demo booked, need identified, and budget or authority discussed.

**Customer:** Proposal accepted and payment completed.

**Ownership:**

Lead → MQL: Marketing | MQL → SQL: Sales | SQL → Customer: Sales | Retention: Customer Success

**Bonus Stage:** Sales Accepted Lead (SAL) to filter quality before SQL.

## Part 2: CRM Configuration

Core Fields: Lead Source, Industry, Company Size, Role, Lifecycle Stage, Engagement Date, Intent Score, Deal Value.

Automations: Auto-tagging, lifecycle updates, follow-up reminders, demo alerts, re-engagement flows.

Dashboards:

- Sales: Active deals, follow-ups, pipeline
- Growth Manager: Conversion rates, CAC, drop-offs
- CEO: Revenue forecast, CAC vs LTV, channel ROI

## Part 3: Nurturing Mechanism

High-Intent: 2 touches/week via Email & WhatsApp; Case studies; Metric: Demo re-booking.

Mid-Intent: 1–2 emails/week via Email & LinkedIn; Educational content; Metric: Demo booking.

Low-Intent: 1 email/week; Industry insights; Metric: Engagement rate.

AI Tools: ChatGPT for personalization, AI lead scoring, subject line testing.

## Part 4: Funnel Analytics & CAC

Underperforming Channel: Facebook Ads due to high CAC and low-quality conversions.

Experiments: ICP-only targeting and case-study-based creatives.

Dashboard Metrics: CAC by channel, LTV, conversion rates, payback period.

## Strategic Summary

Funnels should prioritize clarity over volume. Data structures decisions, storytelling drives action, and strong systems reduce chaos while enabling predictable growth.

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