

Career Path Recommendation & Coaching System

1. System Workflow

The system provides a seamless and interactive experience to help new users discover their ideal career path and stay engaged throughout their learning journey.

Step 1 — User Onboarding

The conversation begins with a simple request:

User: “Hi, I want help finding my ideal career.”

The AI responds and initiates a structured career-discovery dialogue:

AI: “Sure! I'll ask you a few short questions 

Step 2 — Adaptive Discovery Questions

The agent asks 5–8 personalized questions to understand the user's:

- Work preferences (e.g., “*Do you enjoy working with data or people?*”)
- Thinking style (e.g., “*Do you prefer creative work or logical problem-solving?*”)
- Strengths and skills (e.g., “*What are your strongest skills?*”)
- Long-term goals and motivations

Each response helps build a clearer profile of the user's career tendencies.

Step 3 — Personalized Career Recommendations

Based on the user's answers and current global market trends, the AI suggests the top three matching careers:

AI:

“Based on your answers, the top 3 careers that fit you are:

1. Data Analyst
2. Product Manager

3. UX Designer

Would you like to see the learning roadmap for any of these?"

Step 4 — Roadmap & Learning Path

After the user selects a preferred career, the system generates a detailed roadmap that includes:

- Key skills to learn
- Learning stages and milestones
- Top courses and resources
- Practice and portfolio activities

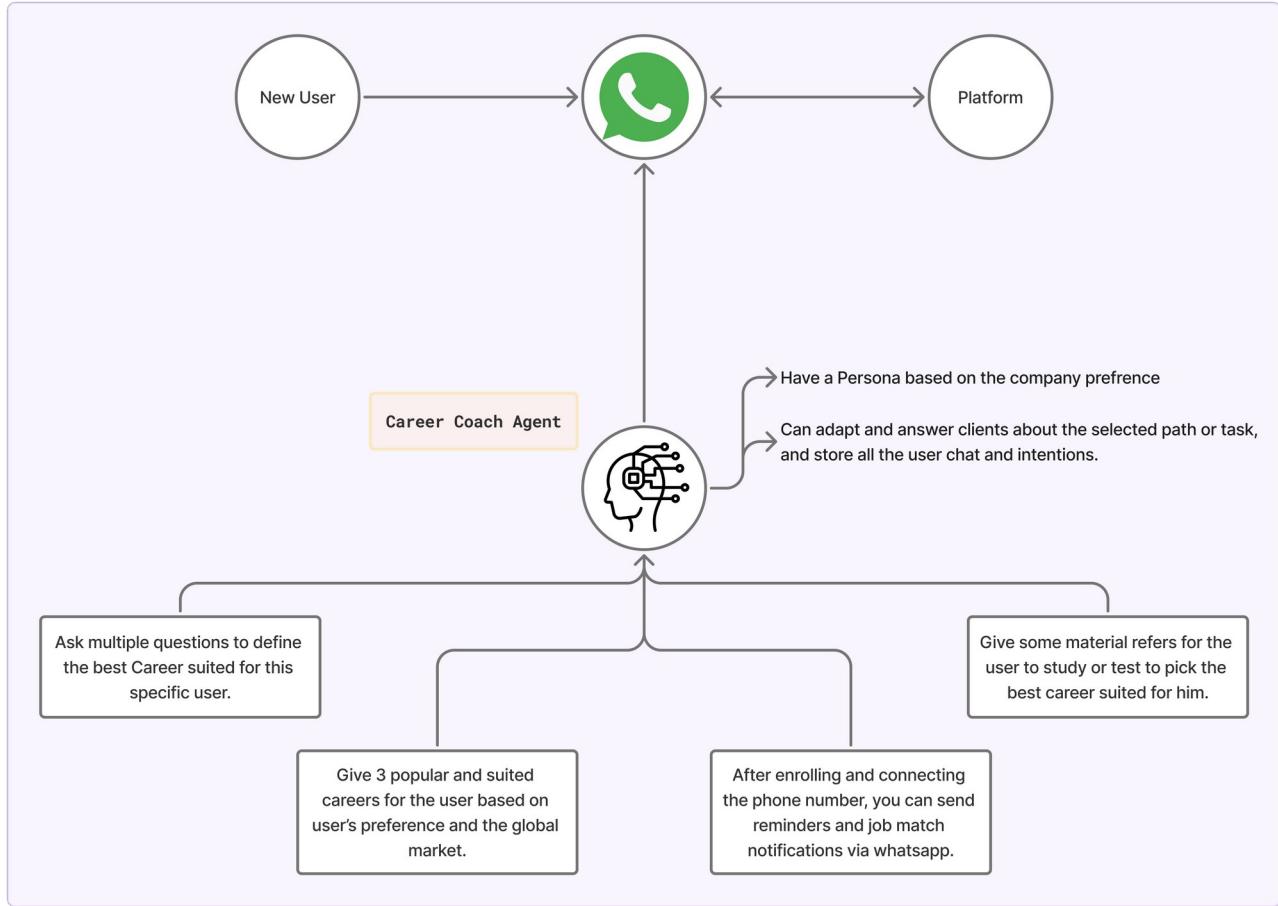
This roadmap is tailored to the user's background and chosen path.

Step 5 — Reminders & Accountability

Once the user connects their phone number, the platform can:

- Deliver weekly progress reminders
- Send job-matching notifications based on skills learned
- Provide follow-up study materials
- Deliver motivational coaching messages

All notifications are delivered via **WhatsApp**, **SMS**, or other supported messaging channels



2. Career Coach Agent — Functional Responsibilities

1. Smart Questioning

The agent asks a sequence of personalized questions to determine:

- Interests
- Skills
- Comfort zones
- Ideal work environment
- Preferred cognitive style

This forms the basis for accurate recommendations.

2. Career Matching Engine

The agent combines:

- User preferences
- Skill indicators
- Market demand

...to propose **three high-potential and relevant career paths.**

3. Engagement & Follow-up Automation

After the user enrolls and verifies their phone number, the agent can:

- Send automated reminders every Sunday
- Notify the user about relevant job opportunities
- Track learning progress
- Provide motivational feedback

4. Learning Resources & Tests

The agent can provide:

- Skill assessments
- Career aptitude tests
- Recommended course lists
- Roadmaps and curated guides

These help the user validate whether the chosen path truly suits them.

3. Agent Characteristics

The Career Coach Agent is designed to be:

Adaptive

Understands user intent, adjusts questions dynamically, and provides personalized answers for each selected career path.

Context-Aware

Stores all chat history, user preferences, and past interactions to ensure continuity and deeper personalization.

Persona-Driven

Follows a predefined communication persona aligned with the company's tone of voice, values, and coaching style.

Reliable

Provides accurate, updated information and consistent guidance across multiple platforms.

4. Tech Stack & Architecture Flow

1. LLM Selection

- Use a **Free or Local LLM** initially (e.g., Llama, Mistral, Phi).
- Optionally integrate a **Fine-Tuned LLM API** for large-scale commercial deployments.

2. n8n Automation

- **EvoloutionAPI** for WhatsApp messaging
- Workflow orchestration (question flow, saving responses, sending reminders)

3. Messaging Integration

Use either:

- **Twilio API** (SMS / WhatsApp)
- **Meta WhatsApp Cloud API**

These handle real-time interaction and automated notifications.

4. Backend Processing (Python)

Python modules handle:

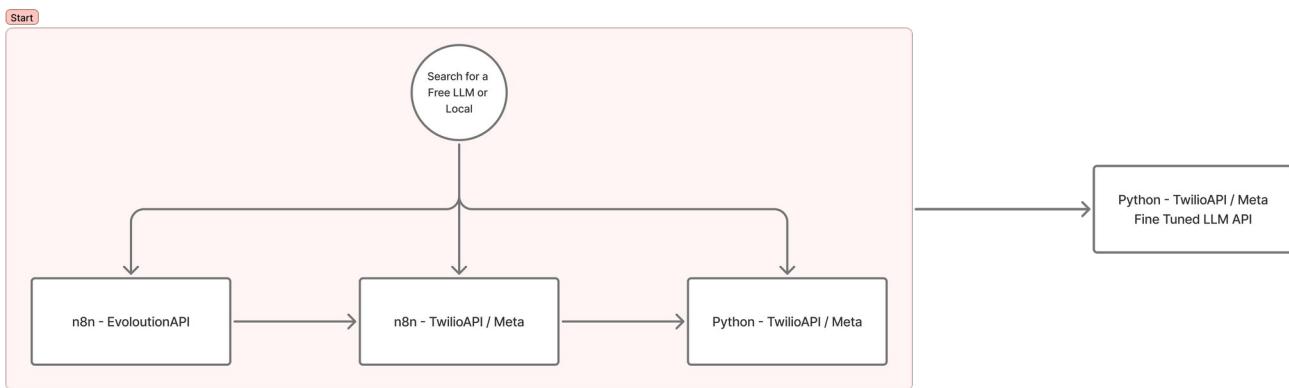
- LLM calls
- WhatsApp/Twilio interactions

- User conversation storage
- Personalized recommendation logic

5. Scalable Architecture

For large-scale use:

- Move to Python microservices
- Switch from free LLMs to fine-tuned custom career recommendation models
- Add logging, analytics, and user segmentation features



5. Final Objective

The ultimate goal of the system is to

- Help new users identify the best career path tailored specifically to them.
- Guide them with a structured learning roadmap.
- Connect them directly to the platform for continued learning, reminders, and job opportunities.

It acts as a **smart career companion**—from discovery to learning to job placement.