# Fundamentals of Agentic AI - Assignment Solution

Introduction to Agentic AI: Exploring the OpenAI Platform

## Objective

To understand and interact with various capabilities of the OpenAI platform, including prompt engineering, realtime models, Assistants API, and text-to-speech features.

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## Pre-requisites:

- An OpenAI account: https://platform.openai.com
- A valid payment method to load USD $5 in credits
- A PDF version of your resume

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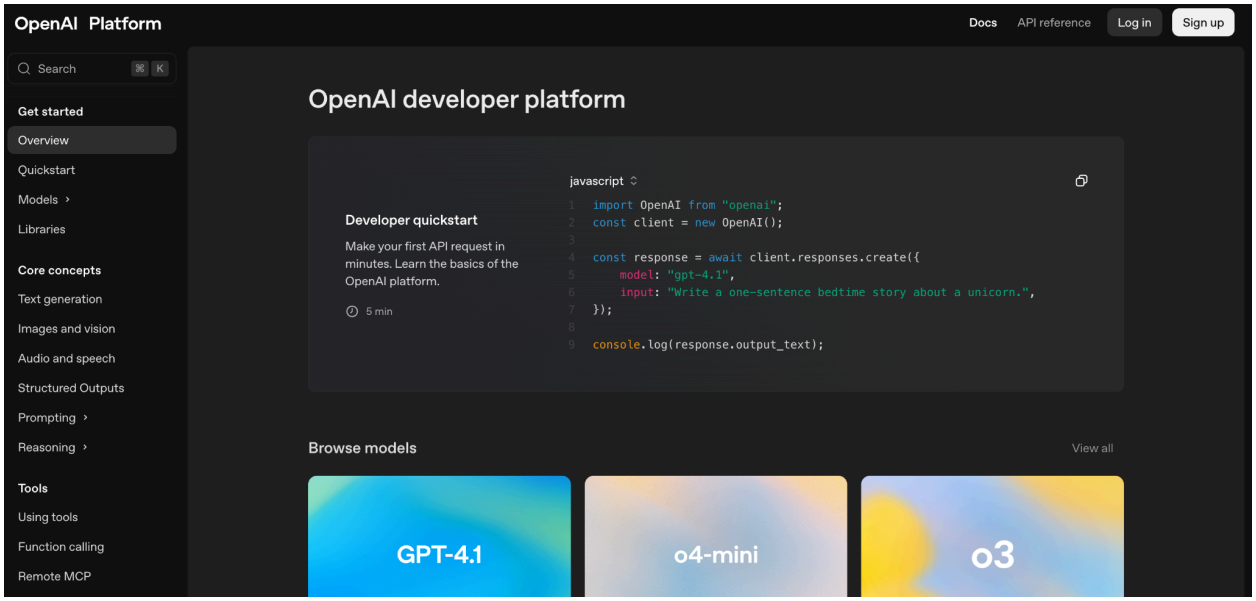
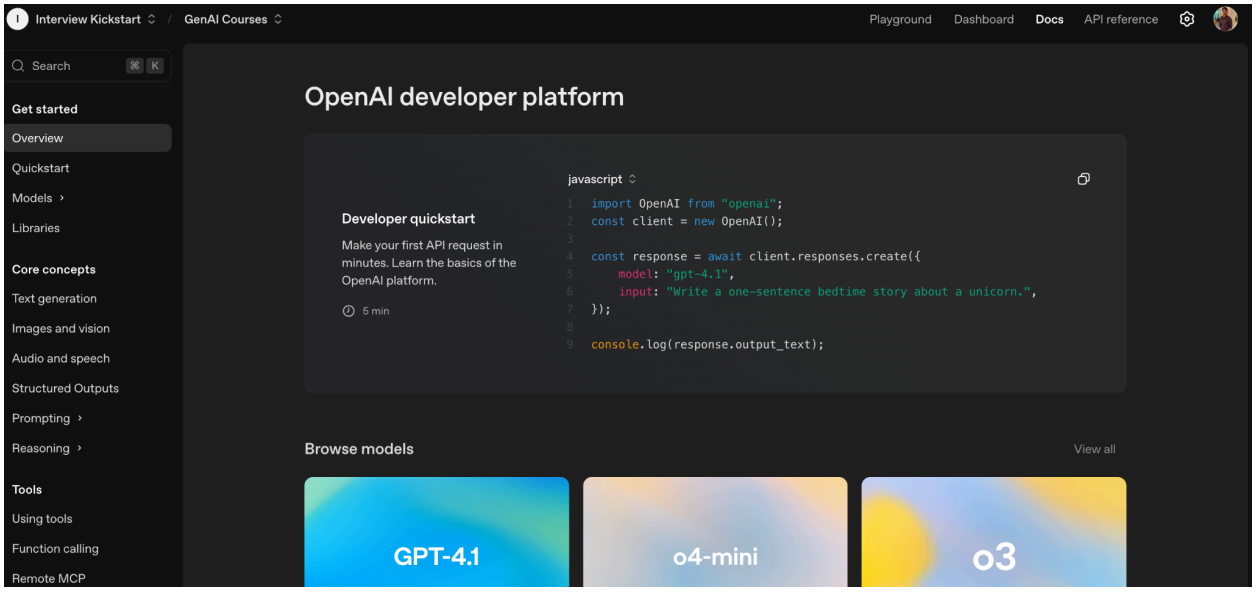
# Assignment Steps & Responses:

## Step 1: Access the Platform

**Action:** Navigate to [https://platform.openai.com](https://platform.openai.com)




**Observation:** Successfully logged in to the OpenAI Developer Platform. Main dashboard shows tabs like Playground, Assistants, Usage, TTS, etc.

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## Step 2: Add Billing Credits

**Action:**

- Click the **Settings ⚙️ icon** at the top right
- Go to **Billing**
- Add $5 of credits using your preferred payment method

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## Step 3: Explore Prompt Features in Playground

**a. Prompt with Latest GPT Model (gpt-4o / gpt-4-turbo)**

**Prompt Tried:**

> "Act as a career coach. Review the following resume section and suggest improvements: [Insert text]"

**Observation:**
The model provided detailed, well-structured feedback and formatting suggestions.

**b. Prompt with GPT-mini Model**

**Prompt Tried:**

> "Summarize the following paragraph in one sentence."

**Observation:**
Faster response, slightly less detailed output compared to GPT-4o.

**c. Prompt with GPT-nano Model**

**Prompt Tried:**

> "Translate: 'The weather is great today' into Spanish."

**Observation:**
Good for lightweight tasks; simple and efficient. Best used in constrained environments or edge devices.

**d. Prompt with Reasoning Model (O-series)**

**Prompt Tried:**

> “What will be the output of the code: for i in range(3): print(i*i)?”

**Observation:**
Strong at logical and mathematical reasoning, with accurate step-by-step explanation.

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## Step 4: Interact with Realtime Model (gpt-4o-realtime)

**Action:**
Navigate to the **Realtime** tab in Playground. Start a chat session with gpt-4o-realtime.

**Prompts Tried:**

- “What’s the fastest way to get to Mars using current technology?”
- “What is a funny joke involving cats and quantum physics?”

**Observation:**

- Super quick response time.
- Can simulate real-time dialogue.
- Ideal for customer service bots, co-pilot experiences, virtual tutors, etc.

**Applications Identified:**

- Live chat support
- Instant feedback tutors
- Voice-based real-time assistants
- Creative brainstorming in fast-paced environments

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## Step 5: Use the Assistants API

**Action:**
Navigate to the **Assistants** tab.

- Create a new assistant: *Name:* “Resume Reviewer Bot”
- Upload your **Resume.pdf**

- Ask:
    - “Summarize my career highlights.”
    - “What’s one thing I can improve in this resume?”
    - “Rewrite my experience section in STAR format.”

**Observation:**

- Accurately parsed content from PDF.
- Gave contextual, targeted suggestions.
- Demonstrates high potential for document-based support tools.

**Sample Assistant Response:**

> “Your experience in ESG consulting is strong. To improve impact, consider quantifying results (e.g., % emissions reduced, # clients trained).”

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## Step 6: Explore Text-to-Speech (TTS) Feature

**Action:**
Navigate to the **TTS** tab.
**Input Prompt:**

> “Hi! I’m excited to learn about Agentic AI and how it can transform industries!”

**Voice Type:**
Nova (Selected from right sidebar)

**Instructions Added:**

> “Speak in a friendly and bright voice.”

**Observation:**

- Generated clear, natural-sounding audio.
- Excellent for voice interfaces, accessibility, podcasts, educational content.

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## Summary of Learnings:

| Feature | Key Learning | Use Case |
|---|---|---|
| Playground Prompts | Compared outputs of different models | Chatbots, summarization, translation |
| GPT Realtime | Super fast response time | Virtual agents, instant feedback |
| Assistants | File-aware agents | Resume analysis, customer onboarding |
| TTS | Natural voice synthesis | Voice assistants, accessibility, narration |

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## Reflections

This assignment helped me understand how OpenAI's platform powers real-world Agentic AI use cases. The experience with realtime models and Assistants showed how multi-modal and interactive AI is evolving beyond just chat.

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