Let's dive into Lesson 18: Writing for AI APIs — one of the most in-demand areas of technical writing right now.

By the end of this lesson, you'll know how to document APIs that use or expose AI models, including writing examples that sound real, are developer-friendly, and match industry standards.

🎯 LESSON 18 GOAL

You'll learn to create clean, developer-ready documentation for an AI API. We'll use a mock API called "TextInsight" — an AI summarisation service.

⏱️ Step 1: API Overview

In AI documentation, the Overview helps readers understand what the API does, who it's for, and why it matters.

Here's an example:

TextInsight API — Overview

The TextInsight API allows developers to generate concise, human-like summaries of long text documents. It uses a Transformer-based summarisation model fine-tuned on news, technical, and academic datasets.

Base URL: https://api.textinsight.ai/v1/

Authentication: Use your API key in the request header. Authorization: Bearer <your_api_key>

Example Use Cases:

- News apps that summarise long articles
- Customer support tools that condense chat transcripts
- Educational tools that summarise study notes
-

✅ Why this works: It gives purpose, usage, and security details in under 10 lines.

🧩 Step 2: API Endpoints

Every endpoint should include:

Endpoint name and HTTP method

Parameters

Example request

Example response

Here's how to write it for /summarise:

POST /summarise

Description

Creates a summary of the input text using AI-powered natural language understanding.

Request Body

Field	Type	Required	Description
text	string	✅	The text to summarise
length	string	❌	Target length (short, medium, or long)

Example Request

```
POST https://api.textinsight.ai/v1/summarise
Content-Type: application/json
Authorization: Bearer YOUR_API_KEY

{
  "text": "Artificial intelligence is transforming the way organisations
handle data...",
  "length": "medium"
}


Example Response
{
  "summary": "AI is revolutionising data management by automating analysis
and improving decisions.",
  "confidence": 0.92,
  "model_version": "v1.2.1"
}


---

## ⚙ Step 3: Errors and Edge Cases

AI APIs often fail differently than standard APIs — e.g. **input too long,
low confidence, or model timeout**.
Here's how you'd document them:

```markdown
## Error Codes

| Code | Type | Description |
|:------|:------:|:-------------|
| 400 | Bad Request | Input text is missing or invalid |
| 413 | Payload Too Large | Input exceeds 10,000 characters |
| 429 | Rate Limit Exceeded | Too many requests — try again later |
| 500 | Model Error | AI model failed to generate output |
| 503 | Service Unavailable | Model temporarily offline |
```

✅ Best practice: Use clear, consistent error language and give actionable guidance.

🧠 Step 4: Example Usage in Code

Developers love quick-start examples. Here's one in Python:

Quickstart (Python)

```python
import requests

url = "https://api.textinsight.ai/v1/summarise"
headers = {"Authorization": "Bearer YOUR_API_KEY"}
data = {"text": "AI helps companies automate customer service."}

response = requests.post(url, json=data, headers=headers)
print(response.json())
```

🎨 Step 5: Markdown Template (Copy to VS Code)

Let's put everything together in one file you can add to your portfolio:
File: `/ai-docs/textinsight-api.md`

```markdown
# TextInsight API — Developer Documentation

## Overview
The TextInsight API provides AI-powered text summarisation for developers
who need concise and accurate content reduction.

Base URL: `https://api.textinsight.ai/v1/`
Authentication: Bearer token required

---

## Endpoint: POST /summarise
Creates a summary from raw text input.

### Parameters
| Name | Type | Description |
|:------|:------:|:-------------|
| text | string | Text to summarise |
| length | string | Summary length: short, medium, or long |

### Example Request
```bash
curl -X POST "https://api.textinsight.ai/v1/summarise" \
-H "Content-Type: application/json" \
-H "Authorization: Bearer $API_KEY" \
-d '{"text":"AI helps automate processes","length":"short"}'
```

Example Response
```
{
  "summary": "AI automates business processes.",
  "confidence": 0.95
}
```

Error Codes

Code	Message	Description
400	Bad Request	Invalid text input
429	Rate Limit	Too many requests
500	Model Error	Internal model failure

Quickstart in Python
```python
import requests

headers = {"Authorization": "Bearer YOUR_API_KEY"}
data = {"text": "AI saves time on support tickets."}
res = requests.post("https://api.textinsight.ai/v1/summarise", json=data,
headers=headers)
print(res.json())
```

Support

Email: support@textinsight.ai

Docs: https://textinsight.ai/docs

Version: v1.0.0

✅ **Your Task Now:**
1. Create `textinsight-api.md` inside `/ai-docs/`
2. Paste the content above.
3. Save and preview it in Markdown preview mode (`Cmd + Shift + V` on Mac).

Would you like me to show you next **how to convert this AI API doc into a polished, downloadable PDF** (Lesson 18.2), or continue straight to **Lesson 19: AI Ethics and Bias Documentation**?