Introduction to APIs with Example

With Example: OpenRouter API Integration

INTERNAL   EXTERNAL

API

API Gateway

API Gateway
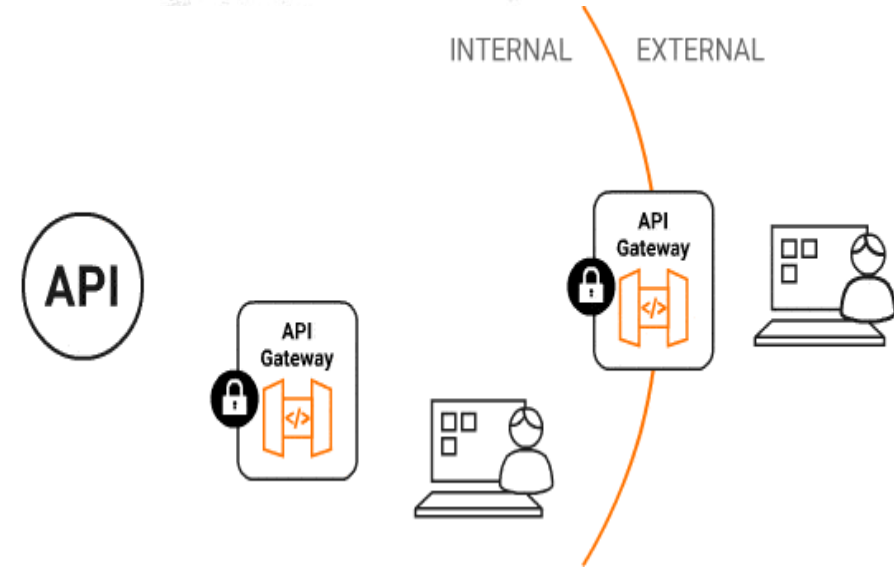
What is an API?

- API stands for Application Programming Interface.

- APIs allow different software systems to communicate.

- APIs are used to request and exchange data over the internet.

- Common examples: Weather API, Payment API, AI Chatbot API.

Types of APIs

- Web APIs (HTTP-based)
- REST APIs (most common)
- SOAP APIs
- GraphQL APIs
- Private, Partner, and Public APIs

How APIs Work

1. A client sends an HTTP request (e.g., GET, POST).
2. The request reaches a server that processes it.
3. The server sends back a response (usually JSON).
4. The client uses the response in the app or UI.
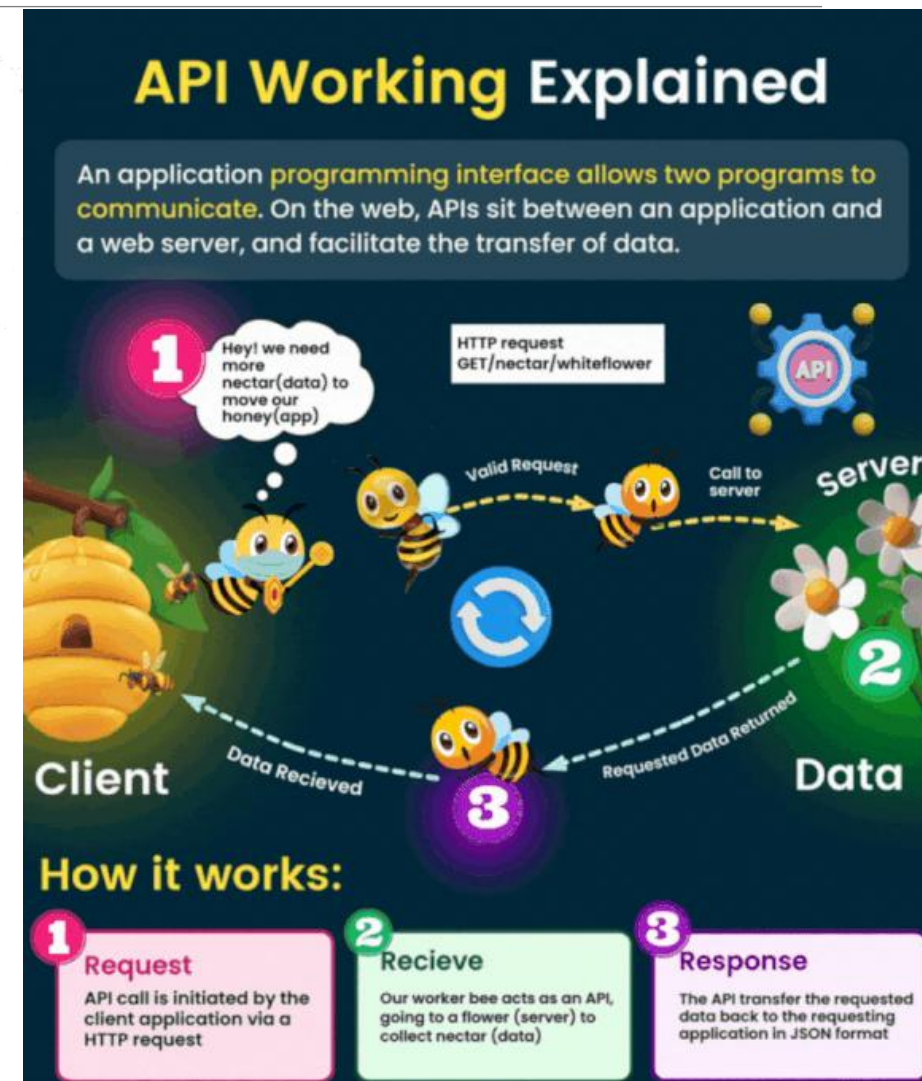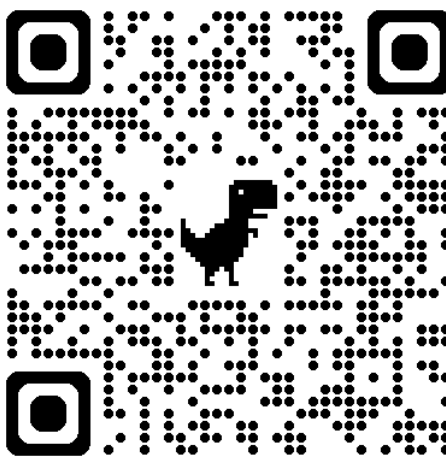
Example: OpenRouter API

- OpenRouter is an API that lets you chat with LLMs like GPT.

- You send a prompt using a POST request.

- The server replies with an AI-generated message.

- Requires API Key for authentication.

Python Example (OpenRouter API)

- PRACTICAL DEMO Visit Link:

https://github.com/lovnishverma/openrouter.ai

OR Scan QR CODE

Best Practices with APIs

- Keep your API keys secret (use .env files).

- Always handle errors (network issues, invalid keys).

- Follow rate limits.

- Read the API documentation.

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