

Lecture 32: Image Prompt and Response

Introduction

- To generate images using **the OpenAI Image Model**, we use two important classes:
 - **ImagePrompt** → Represents the input (text query).
 - **ImageResponse** → Represents the output (generated image link).

Code Implementation:

```
● ● ●

@RestController
public class ImageGenController {

    private ChatClient chatClient;

    private OpenAiImageModel openAiImageModel;

    public ImageGenController(OpenAiImageModel openAiImageModel, OpenAiChatModel chatModel) {
        this.openAiImageModel = openAiImageModel;
        this.chatClient = ChatClient.create(chatModel);
    }

    @GetMapping("/image/{query}")
    public String genImage(@PathVariable String query) {

        ImagePrompt prompt = new ImagePrompt(query);

        ImageResponse response = openAiImageModel.call(prompt);
        return response.getResult().getOutput().getUrl();

    }
}
```

Key Points:

- **Endpoint Definition**
 - `@GetMapping("/image/{query}")` → Accepts query as a path variable.
- **Create Prompt**
 - `ImagePrompt prompt = new ImagePrompt(query);`
 - Converts the query text into an image prompt.
- **Call Image Model**
 - `openAiImageModel.call(prompt)` → Sends the prompt to the model.
 - Returns an **ImageResponse**.
- **Extract Image Link**
 - From response → `response.getResult().getOutput().getUrl()`
 - Returns the generated image URL as a string.

Summary:

- Using **ImagePrompt** and **ImageResponse**, we can send a text query and receive a link to the generated image. The method provides a simple way to test image generation with OpenAI in Spring AI.