Hands-on-Lab: Generate Text using Generative AI

Estimated time needed: 15 minutes

Welcome to the hands-on lab to generate text using generative AI!

What is generative AI?

Generative AI is an advanced technology that understands context based on vast training data. Generative AI models can generate new content based on that contextual understanding and mimic human creative skills. The generative model takes a prompt as input and then processes it to generate new content as output.

In this lab, you will explore the capabilities of generative AI to generate text. You will use IBM's generative AI classroom lab, powered by many language models, to generate the desired output.
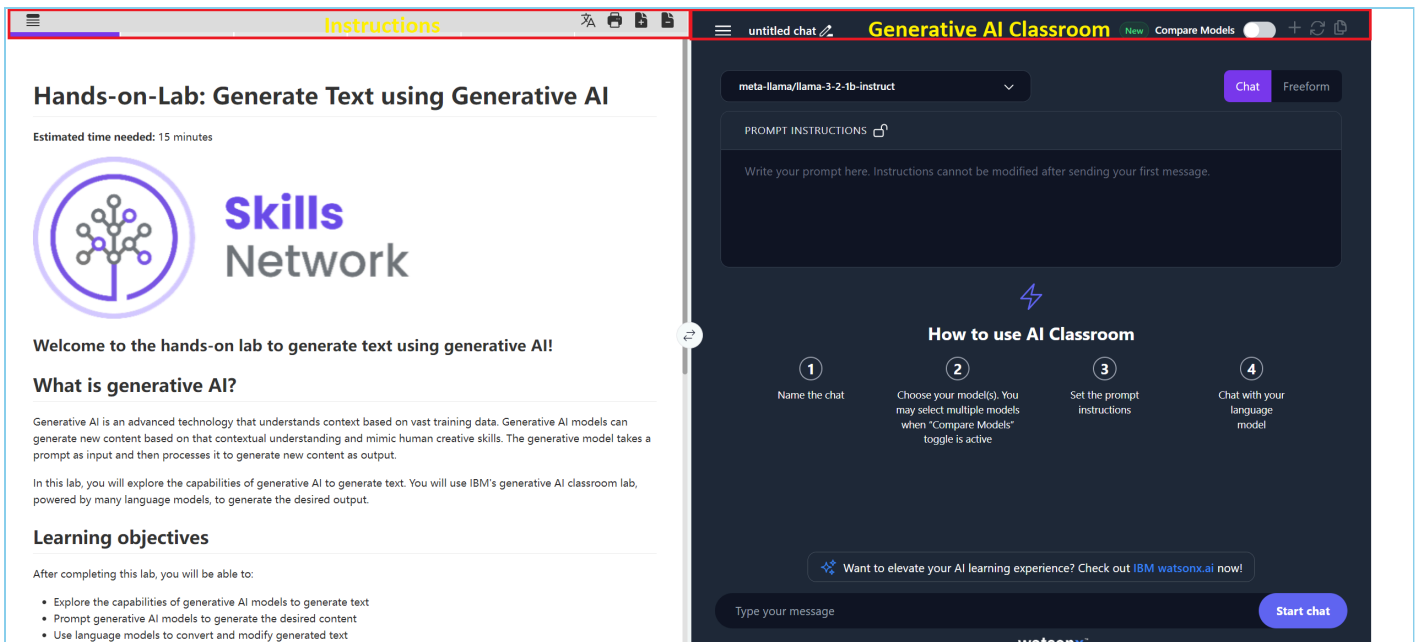
Learning objectives

After completing this lab, you will be able to:

- Explore the capabilities of generative AI models to generate text
- Prompt generative AI models to generate the desired content
- Use language models to convert and modify generated text

About generative AI classroom

The generative AI classroom is a tool where you can write and compare your prompts to generate desired text with real-time chat responses. Moreover, you can choose from multiple generative AI models and learn about their strengths and weaknesses.

You will have both the generative AI classroom environment and instructions on one page in a browser. The instructions will be on the left half of the screen, and the generative AI classroom will be on the right half of the screen. You can interact with the language model using the message and chat fields.

Exercise 1: Text generation for the desired context

In this exercise, you will prompt the generative AI classroom chatbot to generate the desired text and review the generative AI model's text generation capability.

Step 1: Set up the AI classroom

As a first step, you must set up your AI classroom for a better learning experience.

Before beginning the exercise, you must:

1. Name the chat: Use the pencil icon available on the top-left corner of the right pane to name the chat.

2. Choose the model: Use the dropdown option from the top-left corner of the right pane for the text generation exercise and choose "GPT-5 Nano" model.

3. Give prompt instructions: Use the **Prompt Instructions** field on the upper right pane of the chat system to provide instructions or any specific details about the context of the required output. These instructions will be locked when you start the chat and cannot be modified later.

4. Type your message: Use the text box available at the bottom of the page to write the prompts and converse with the chat system.

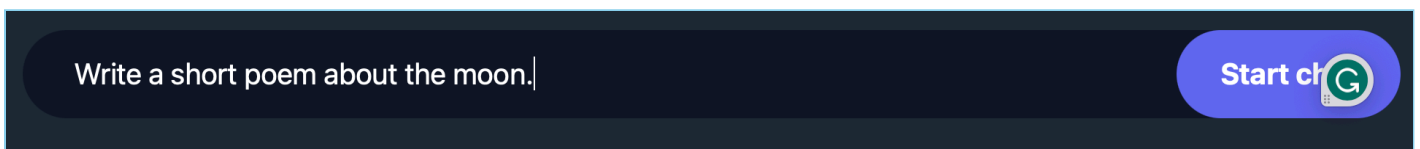# Step 2: Text generation for the desired context

Step 2: Generate text using a text prompt or scenario

Think of a context and draft a statement or prompt for the desired text content you want from the chatbot. For better results, include specifics and details about the context of the required output.

1. Write your prompt or statement in the **Type your message** field at the bottom of the screen.
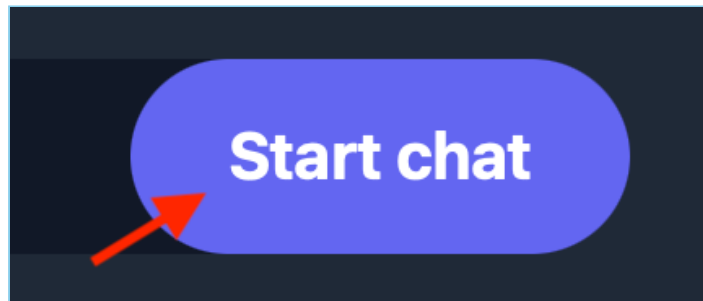   For example,

   ```
   Write a short poem about the moon.
   ```

   You can copy the above example using the copy icon on the right side of the box.

   Note: Ignore the prompt instructions field for easy understanding and a quick start. You can include additional information or instructions about the context of the required output along with your prompt in the type your message field.

2. Now, click **Start chat** to send the message to the chatbot.

3. You will see the textual response with the desired content in the middle pane on the right side of the screen.
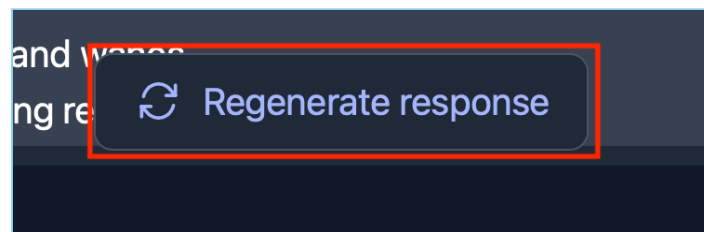
4. If you are unsatisfied with the response, click **Regenerate response**, and the chat system will show a revised response for your original prompt.

5. You can copy and paste the generated output and tweak it further as required.

Step 3: Text conversion for the desired context

Step 3: Convert generated text into different text formats

You can also test the conversational capabilities of the language model.
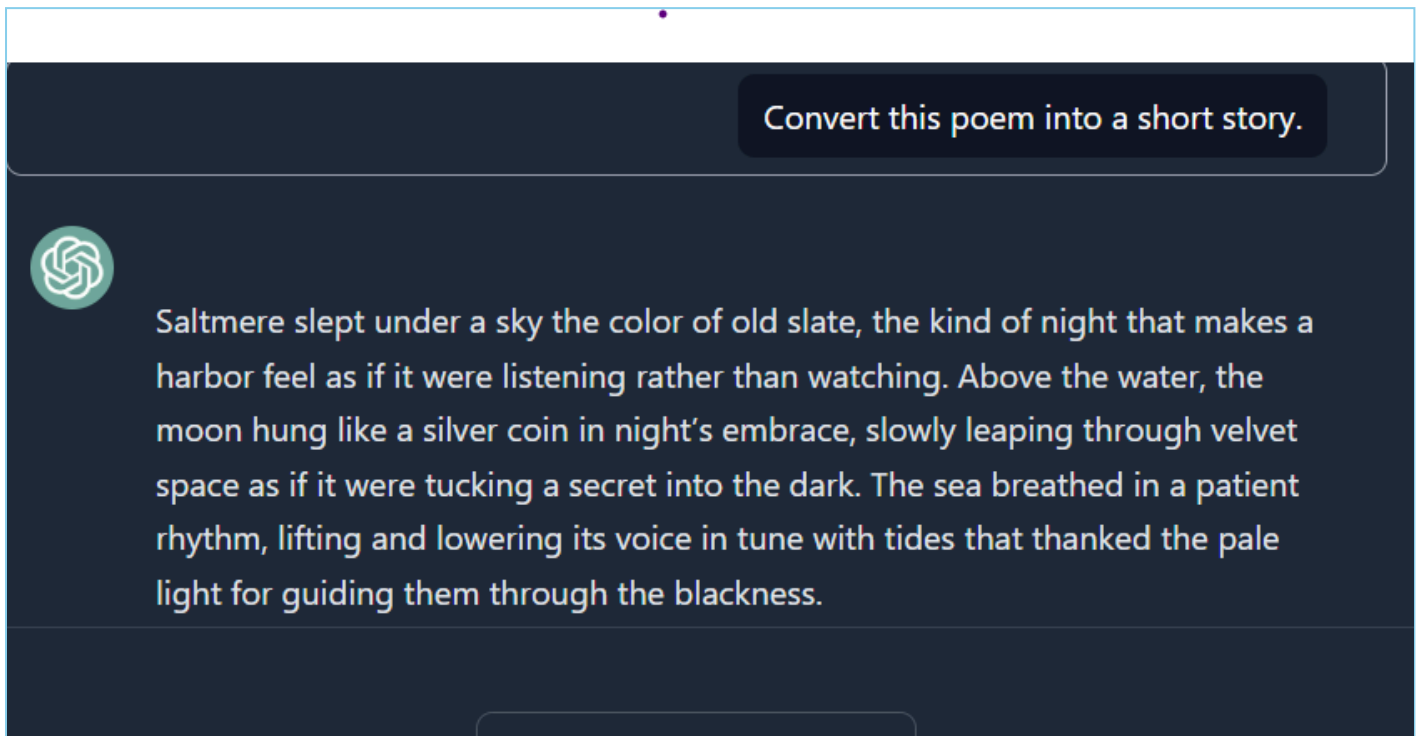
1. Continue with the same Step 2 example in the same chat window.

2. Enter the additional prompt in the **Start chat** field to convert the generated text into a different text format.

For example,

```
Convert this poem into a short story.
```

You can copy the above example using the copy icon on the right side of the box.

3. The chat system will generate another format of the originally generated response.

Convert this poem into a short story.

Saltmere slept under a sky the color of old slate, the kind of night that makes a harbor feel as if it were listening rather than watching. Above the water, the moon hung like a silver coin in night's embrace, slowly leaping through velvet space as if it were tucking a secret into the dark. The sea breathed in a patient rhythm, lifting and lowering its voice in tune with tides that thanked the pale light for guiding them through the blackness.
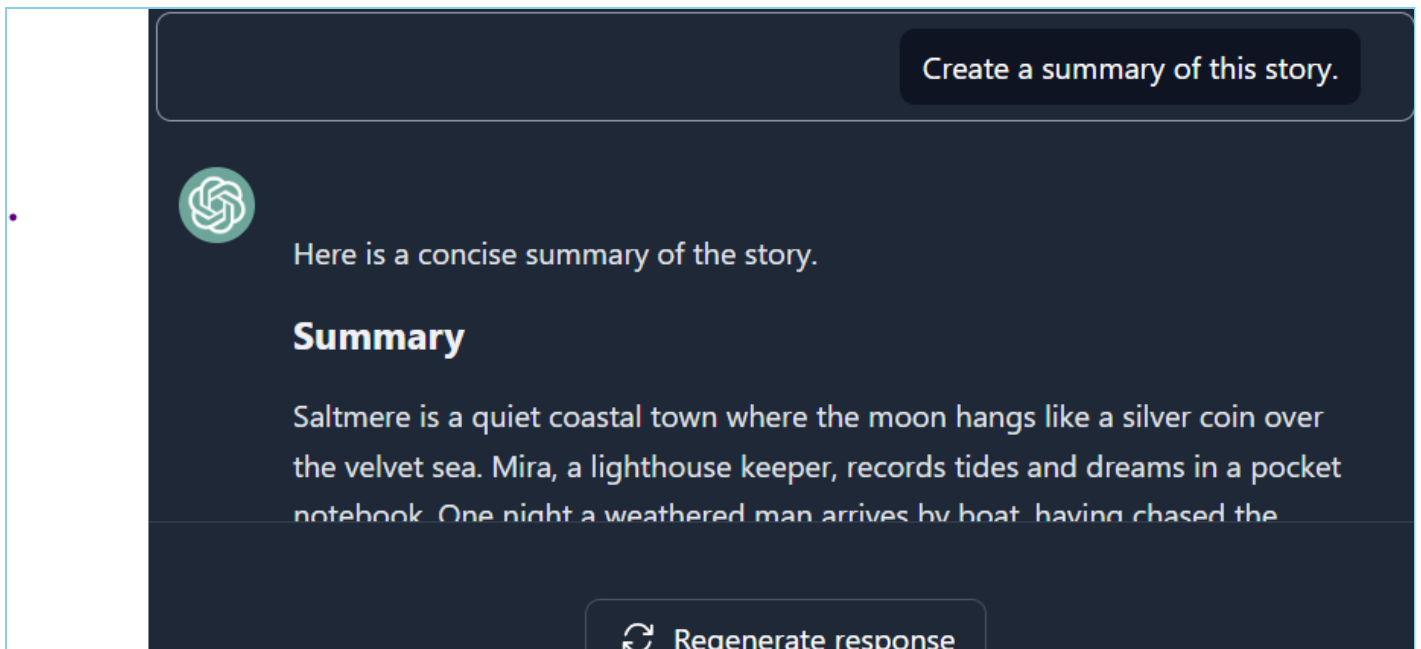
4. You can delve deeper into the response and enter the additional prompt in the **Start chat** field to test generative AI's conversational abilities.

For example,

```
Create a summary of this story.
```

You can copy the above example using the copy icon on the right side of the box.

5. The chat system will respond to your additional message(s) based on already generated responses.

Note: You can continue interacting with the chatbot to dive further as long as you like or require.

Step 4: Try yourself

1. Now, you must try to generate textual responses for various contexts from the language model.

For example,

    a. `Tell me a fun fact about space.`

    b. `Explain how a bicycle works.`

    c. `What are three famous poems written by William Wordsworth?`

```
d. Create a marketing campaign for a retail fashion brand.
```

```
e. Help me draft a job description for the role of Instructional Designer.
```

Note: You must validate the responses generated through the chat system for factual accuracy and use the technology ethically and responsibly.

Conclusion

Congratulations! You just completed the hands-on lab to generate text using generative AI.

In this lab, you explored the capabilities of generative AI models to generate text. You learned about IBM's Generative AI classroom chatbot system powered by many language models. You learned how to generate the desired text using prompts and reviewed the text generation capabilities of language models.