

# 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.

The screenshot displays a web application interface for a 'Generative AI Classroom'. The interface is split into two main sections: 'Instructions' on the left and 'Generative AI Classroom' on the right.

**Instructions Section (Left):**

- Table of Contents:** A navigation bar at the top left.
- Hands-on-Lab: Generate Text using Generative AI:** The main title of the lab.
- Estimated time needed:** 15 minutes.
- Skills Network:** A logo featuring a stylized brain with neural connections.
- Welcome to the hands-on lab to generate text using generative AI!**
- What is generative AI?:** A section explaining that generative AI is an advanced technology that understands context based on vast training data and can generate new content based on that contextual understanding and mimic human creative skills. It states that the generative model takes a prompt as input and then processes it to generate new content as output.

**Generative AI Classroom Section (Right):**

- untitled chat:** A header for the chat area.
- gpt-3.5-turbo:** A dropdown menu showing the selected AI model.
- PROMPT INSTRUCTIONS:** A section with a lock icon, containing the text: 'Write your prompt here. Instructions cannot be modified after sending your first message.'
- How to use AI Classroom:** A section with four numbered steps (1, 2, 3, 4) and a promotional message: 'Want to upgrade your AI learning experience? Check out [IBM watsonx.ai](https://ibm.com/watsonx) now!'.
- Type your message:** A text input field for the user's prompt.
- Start chat:** A button to initiate the chat.

# Exercise 1: Text generation for the desired context

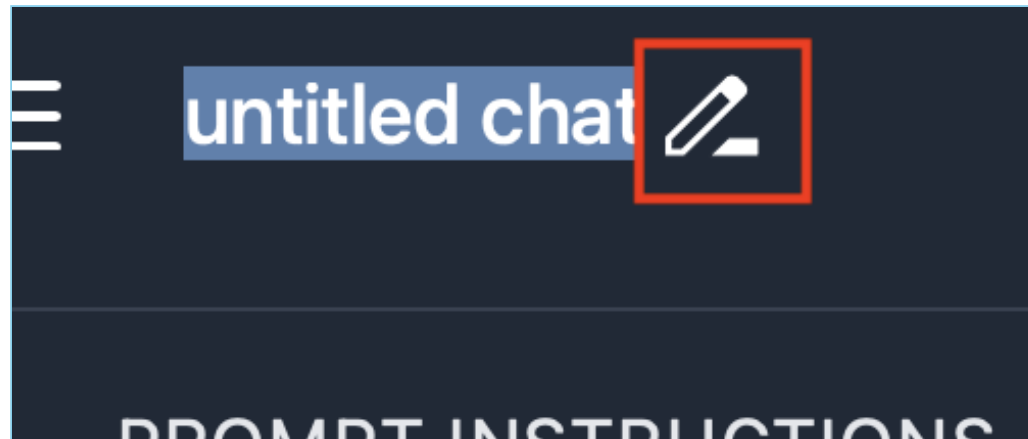
In this exercise, you will prompt the generative AI classroom chatbot to generate the desired text and review the generative AI model's text generation capability.

## Step 1: Set up the AI classroom

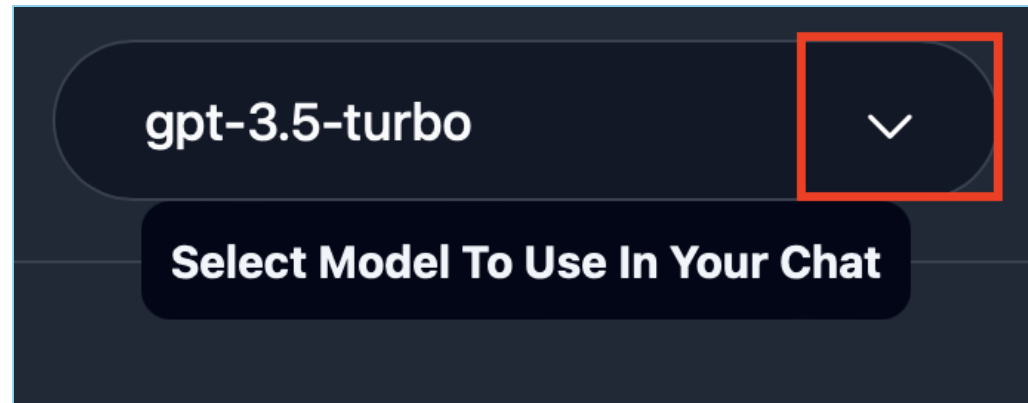
As a first step, you must set up your AI classroom for a better learning experience.

Before beginning the exercise, you must:

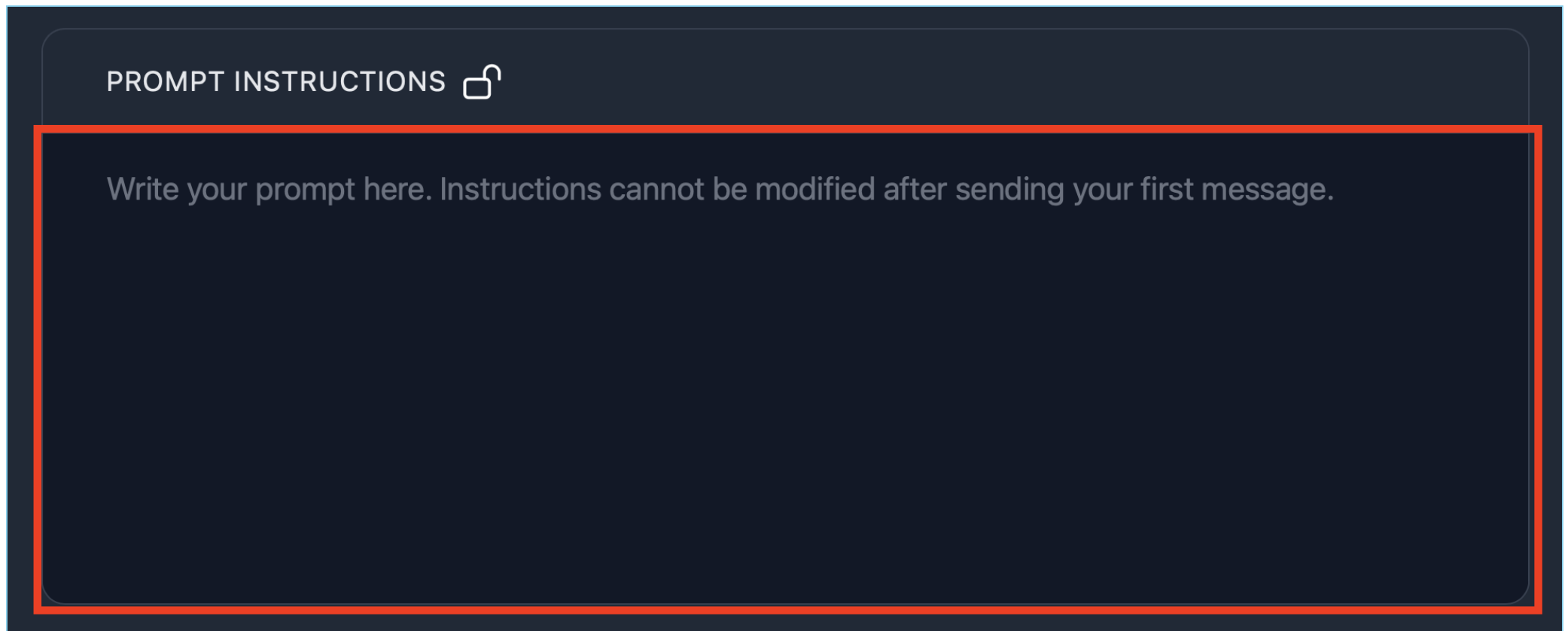
1. Name the chat: Use the pencil icon available on the top-left corner of the right pane to name the chat.



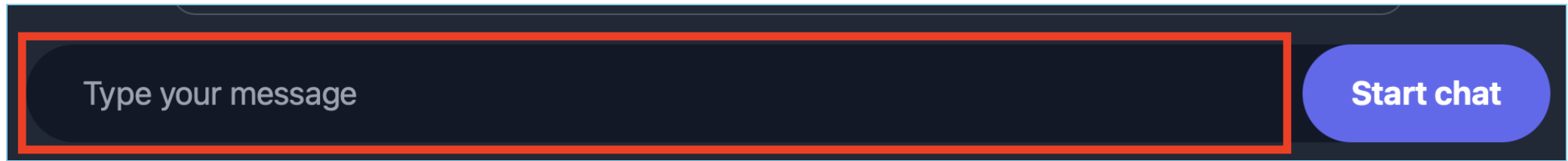
2. Choose the model: Use the dropdown option from the top-right corner of the right pane for the text generation exercise.



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.

A screenshot of a chat interface. It features a dark blue background. On the left, there is a large, rounded rectangular text input field with a red border. Inside this field, the text 'Type your message' is written in a light gray font. To the right of the input field is a blue, rounded rectangular button with the text 'Start chat' in white.

## 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.

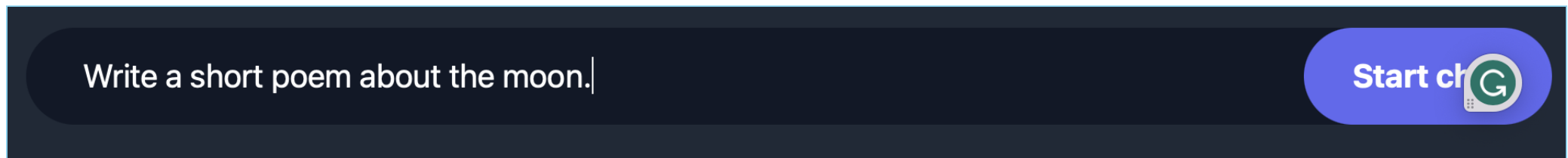
1. Write your prompt or statement in the **Type your message** field at the bottom of the screen.  
For example,

1. 1

1. Write a short poem about the moon.

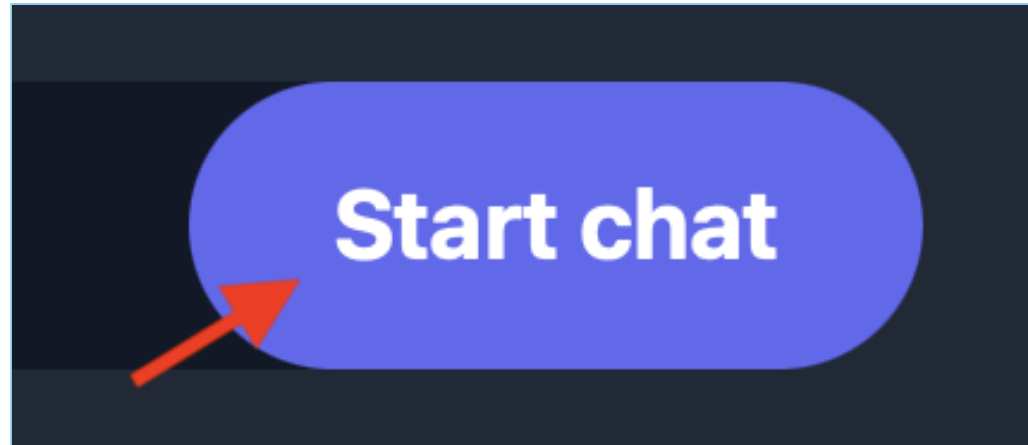
Copied!

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

A screenshot of a chat interface, similar to the one above. The dark blue background is present. The text input field now contains the text 'Write a short poem about the moon.' in white. The blue 'Start chat' button is still on the right, but it now features a small green circular icon with a white 'G' inside it.

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.



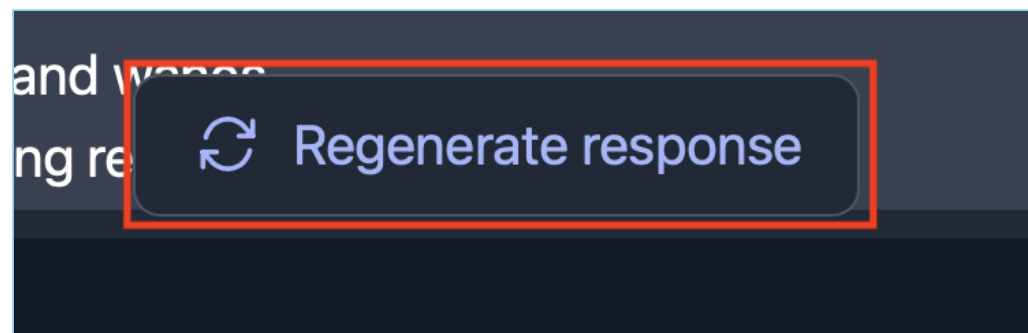
3. You will see the textual response with the desired content in the middle pane on the right side of the screen.

Write a short poem about the moon.

In the vast night sky, a radiant pearl gleams,  
The moon, a celestial beauty that beams.  
Its silver light casts a gentle glow,  
Guiding wanderers wherever they may go.

The moon, a muse for poets and dreamers,  
Inspiring tales and romantic endeavors.  
Its tranquil presence brings solace and peace,  
As it illuminates the darkness with ease.

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,

1. 1
1. Convert this poem into a short story.

Copied!

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.



For in its beauty, dreams take flight.  
A celestial wonder, forever in our sight,  
The moon, a beacon in the night.

Convert this poem into a short story.

Once upon a time, in a world where the night sky was vast and mysterious, there was a radiant pearl that gleamed amidst the darkness. This pearl was none other than the moon, a celestial beauty that beamed its silver light upon the Earth below.

The moon's gentle glow cast a comforting and guiding presence, offering solace and peace to all who looked upon it. It was a muse for poets and dreamers, inspiring tales of love and adventure. Its tranquil presence brought a sense of calm to those who gazed upon it, as if it held the power to illuminate even the darkest corners



Regenerate response

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,

1. 1

1. Create a summary of this story.

Copied!

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.

faith, even in the blackest of nights.

Create a summary of this story.

This story is about the moon, a radiant pearl in the vast night sky. It serves as a guiding light, inspiring poets and dreamers with its tranquil presence. The moon's changing phases remind us of the impermanence of life, and its lunar terrain holds mysteries waiting to be explored. Throughout time, the moon has silently witnessed stories of loss and love, becoming a symbol of hope in the darkest of times. People find solace and inspiration in its beauty, as dreams take flight under its ethereal glow.

 Regenerate response

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

## Step 4: Try yourself

### Step 4: Try yourself

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

For example,

1. 1

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

Copied!

1. 1
1. b. Explain how a bicycle works.

Copied!

1. 1
1. c. What are three famous poems written by William Wordsworth?

Copied!

1. 1
1. d. Create a marketing campaign for a retail fashion brand.

Copied!

1. 1
1. e. Help me draft a job description for the role of Instructional Designer.

Copied!

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.

## Changelog

Date	Version	Changed by	Change Description
2023-09-04	1.0	Divya Pareek	Initial version created

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