

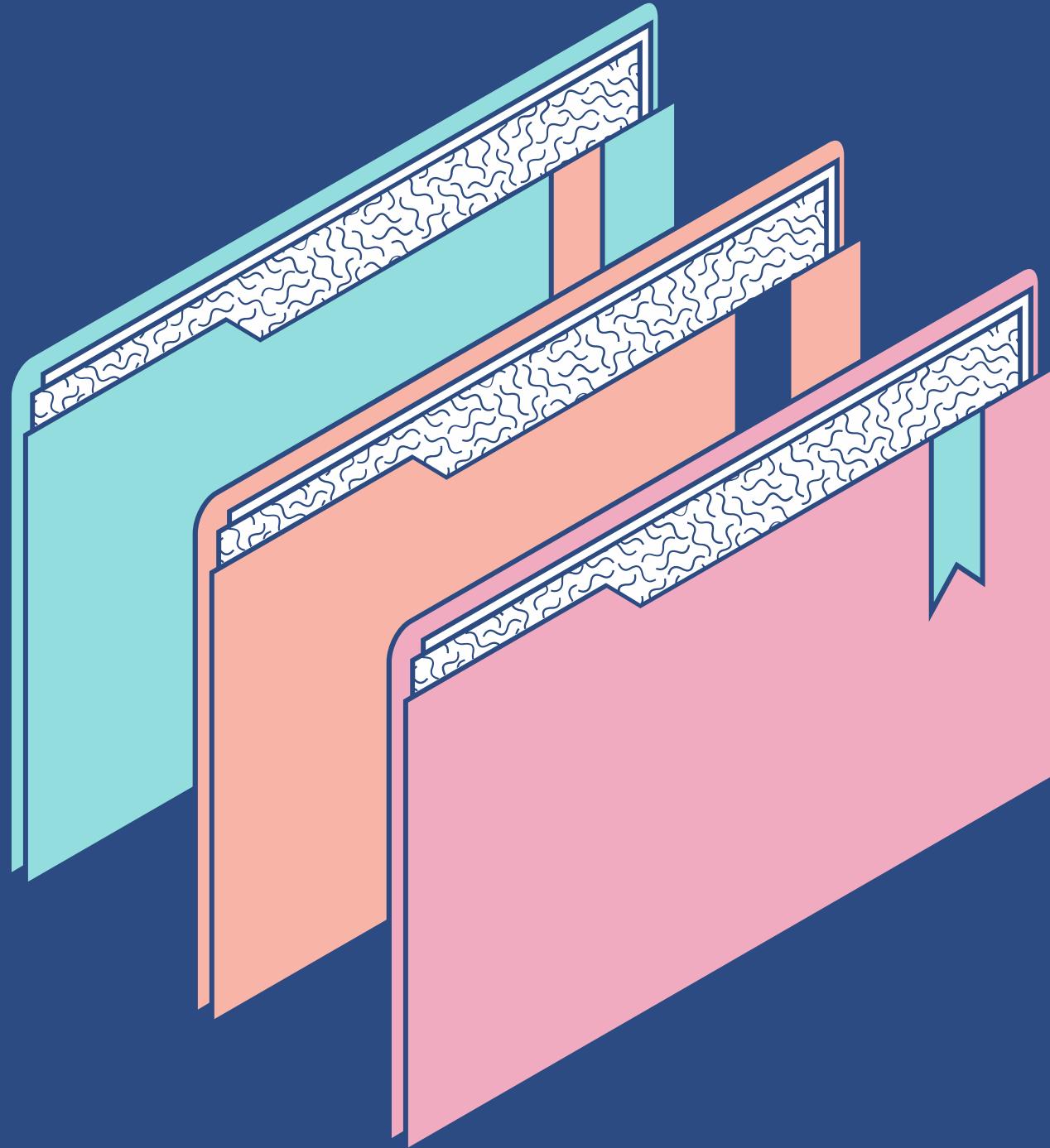


TECH TITANS

Multifunctional Text editor AI bot

DevNet Associate, Software Engineering
Course

Content



KEY TOPICS DISCUSSED IN THIS PRESENTATION

- Information about our application
- The reasons our team decided on these specific features in our application
- Git / Github of our project.
- Application code including comments and documentation
- Future enhancements
- Problems we faced during this project
- Conclusion

Tip: Use links to go to a different page inside your presentation.

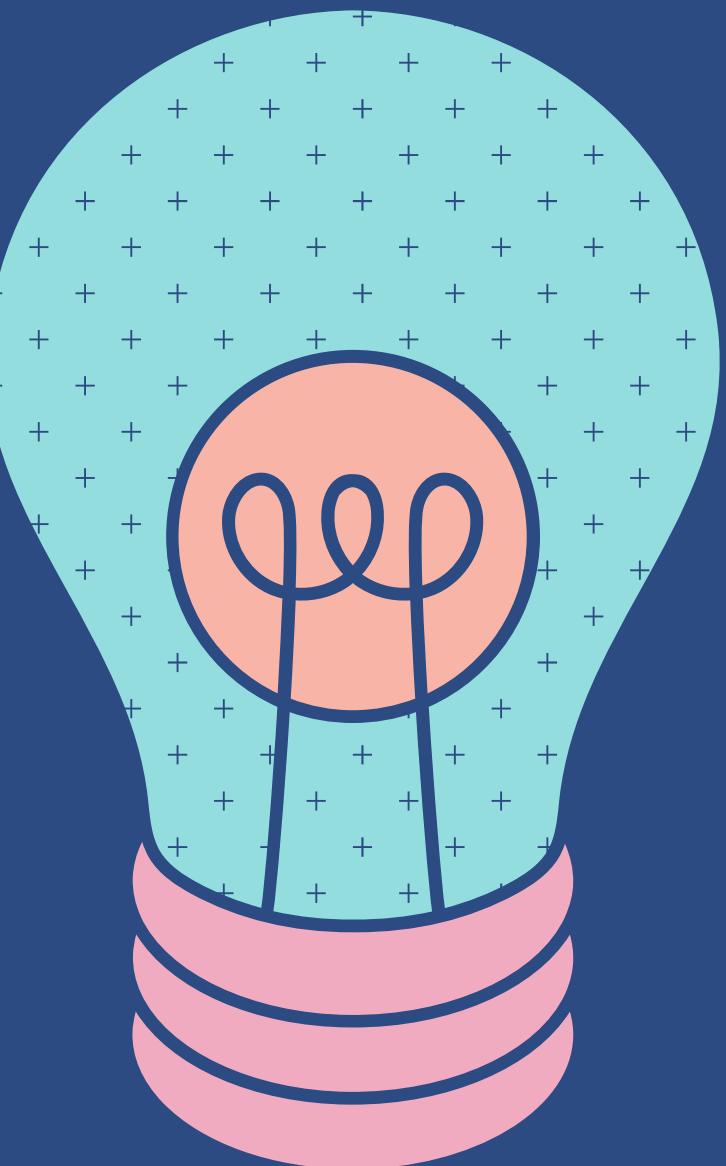
How: Highlight text, click on the link symbol on the toolbar, and select the page in your presentation you want to connect.

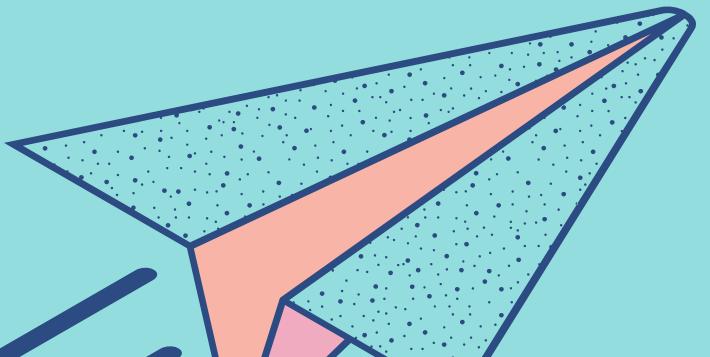
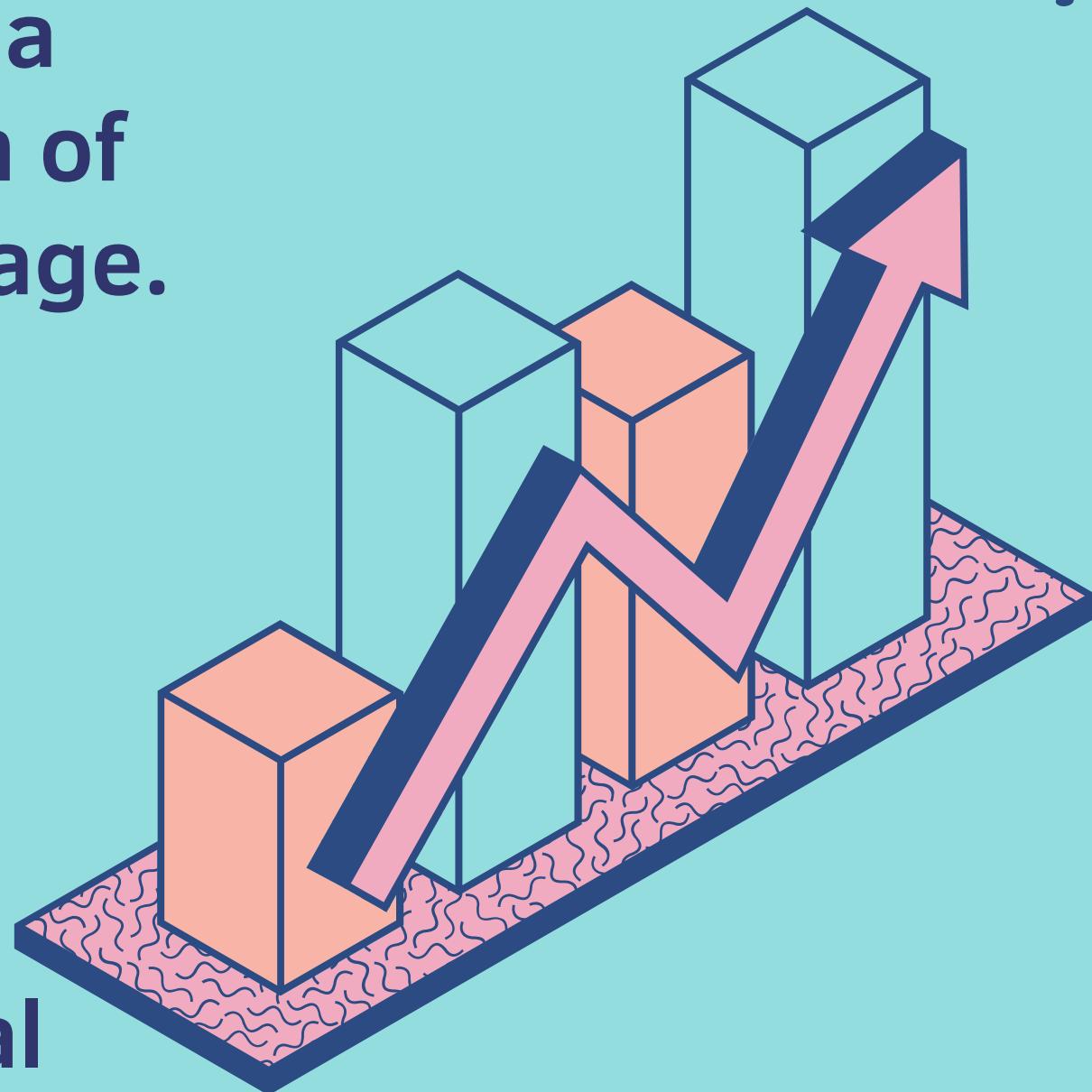
Text editor bot

Our AI-powered chatbot that has several functionalities. It can summarize text, paraphrase sentences, chat with users, and translate text into other languages.



A summarizer is an AI feature to automatically generate a shortened version of a longer text while retaining its main points and meaning. The tool analyzes the text and identifies the most important information and ideas, then condenses the content into a summary that is shorter and easier to read.





A Translator: Given a sentence and a language, it generates a translation of the sentence in the specified language.

A Q&A chatbot: this is a type of conversational agent that is designed to answer questions from users. This chatbot can be used to provide customer support, technical assistance, or to help users find information quickly.

A Paraphraser: this tool is a software application that is designed to rewrite a piece of text, in order to create a new version that conveys the same meaning as the original text, but with different words and structure.



Main reasons why our team selected this option?



GPT-3/GPT-4 are some of the most advanced language models currently available, and integrating them into a software engineering project can demonstrate a commitment to innovation and staying ahead of the curve. However, adapting the CISCO net acad Software engineering Lab 4.9.2 python framework to integrate GPT-3/GPT-4 REST API can be a challenging task, requiring a high level of technical expertise and knowledge of both software engineering and AI technologies.

ChatBot is a powerful tool for natural language processing and can be used in various applications such as chatbots, virtual assistants, and language translation. It can also learn and understand user preferences, making it useful for personalization.

Strategy & Project Plan

1 ————— 2 ————— 3 ————— 4

STEP

Creating a new repository for the project and inviting all collaborators

STEP

Choosing a methodology for our project

STEP

Dividing the team into subteams based on the skills we have

STEP

Checking each other subteam's job and making it more precise

Creating a new Repository&How it works

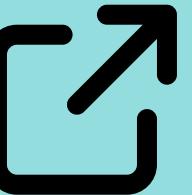
- Create branches

In GitHub, branches are used to isolate work and avoid affecting the main codebase. Team members can create branches to work on specific features or bug fixes without interfering with each other's work. To create a branch, they would navigate to the project's repository on GitHub, enter a name for their new branch, and click the "Create branch" button. After the new branch is created, they can start working on their changes without affecting the main codebase.

- Add team members

Project owners or administrators can add team members to a project as collaborators. Collaborators have read and write access to the repository and can create branches, make commits, and push changes. To add a team member, the owner or admin goes to the "Settings" tab of the repository, selects "Collaborators," enters the team member's username or email, and clicks "Add collaborator." After the team member accepts the invitation, they can create their own branches and make commitments to the project.



[Link to the GitHub](#) 

Choosing a methodology

The Agile methodology allows our team to remain flexible and adaptable throughout the development process, with regular reviews and retrospectives to identify areas for improvement and make adjustments as necessary. By using this approach, our team can deliver a high-quality Python text editor application with four main features and the integration of GPT API, on time

Agile

Dividing into teams

1

TEAM

The first team is responsible for writing the code for the application, including implementing the four main features and integrating the GPT API.

This team will work in two-week sprints to ensure that they are delivering high-quality, functional code on a regular basis.

2

TEAM

The second team is responsible for creating comprehensive documentation for the application, including user manuals, technical documentation, and help guides. They will work closely with the first team to ensure that the documentation is accurate and up-to-date with the latest features and functionality.

3

TEAM

The third team is responsible for creating an engaging presentation that showcases the features and benefits of the application to stakeholders and potential users. This team will work closely with the first and second teams to ensure that the presentation accurately reflects the functionality and documentation of the application.

Checking each other's work

The Agile methodology allows our team to remain flexible and adaptable throughout the development process, with regular reviews and retrospectives to identify areas for improvement and make adjustments as necessary. By using this approach, our team can deliver a high-quality Python text editor application with four main features and the integration of GPT API, on time





Application code including comments and documentation

IN OUR PROJECT WE USED PYTHON PROGRAMMING
LANGUAGE

```
py chatBot.py ×

py chatBot.py > ⚙ translate

1 import requests
2 import json
3 import re
4
5 # Set up OpenAI API credentials
6 API_KEY = "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"
7
8
9 def summarize(text):
10     prompt = f"Please summarize the following text:\n{text}"
11     response = query_api(prompt)
12     summary = response.strip()
13     return summary
14
15
16 def paraphrase(text):
17     prompt = f"Please paraphrase the following sentence:\n{text}"
18     response = query_api(prompt)
19     paraphrase = response.strip()
20     return paraphrase
21
22 def translate(text, lang):
23     prompt = f"Please translate the following sentence into {lang} language:\n{text}"
24     response = query_api(prompt)
25     paraphrase = response.strip()
26     return paraphrase
```

```
27 def chat():
28     print("Hi, I am your ChatBot. How may I assist you?")
29     while True:
30         user_input = input("\nYou: ")
31         if user_input.lower() == "bye":
32             print("ChatBot: Bye!")
33             break
34         elif "?" in user_input:
35             prompt = f"Q: {user_input}\nA:"
36             response = query_api(prompt)
37             chatbot_response = response.strip()
38             print("ChatBot:", chatbot_response)
39         else:
40             print("ChatBot: I'm sorry, I can only answer questions. Please ask a question.")
41
42
43     def query_api(prompt):
44         headers = {
45             "Content-Type": "application/json",
46             "Authorization": f"Bearer {API_KEY}",
47         }
48         data = {
49             "prompt": prompt,
50             "temperature": 0.5,
51             "max_tokens": 60,
52             "n": 1,
53             "stop": None,
54         }
```

```
55     response = requests.post("https://api.openai.com/v1/engines/text-davinci-002/completions",
56                             headers=headers,
57                             data=json.dumps(data))
58     response_json = json.loads(response.text)
59     text = response_json["choices"][0]["text"]
60     return text
61
62
63 if __name__ == '__main__':
64     print("Welcome to the AI Chatbot!")
65     print("This program can summarize, paraphrase, and chat with you.\n")
66     while True:
67         print("Please select an option:")
68         print("1. Summarize text")
69         print("2. Paraphrase a sentence")
70         print("3. Chat with the ChatBot")
71         print("4. Translate a text")
72         print("5. Exit program\n")
73         user_input = input("Enter your choice (1/2/3/4/5): ")
```

```
73     user_input = input("Enter your choice (1/2/3/4/5): ")
74     if user_input == "1":
75         text = input("\nEnter the text to summarize: ")
76         summary = summarize(text)
77         print("\nSummary:", summary)
78     elif user_input == "2":
79         text = input("\nEnter the sentence to paraphrase: ")
80         paraphrase = paraphrase(text)
81         print("\nParaphrase:", paraphrase)
82     elif user_input == "3":
83         chat()
84     elif user_input == "4":
85         lang = input("Please enter the language that you want translate: ")
86         text = input("Enter the sentence to translate: ")
87         translate = translate(text, lang)
88         print(f"\nTranslation: {translate}")
89     elif user_input == "5":
90         print("\nThank you for using the AI Chatbot!")
91         break
92     else:
93         print("\nInvalid choice. Please try again.")
```

Welcome to the AI Chatbot!

This program can summarize, paraphrase, and chat with you.

Please select an option:

1. Summarize text
2. Paraphrase a sentence
3. Chat with the ChatBot
4. Translate a text
5. Exit program

Enter your choice (1/2/3/4/5): 3

Hi, I am your ChatBot. How may I assist you?

You: What is the capital city of South Korea?

ChatBot: The capital city of South Korea is Seoul.

You: Who invented light?

ChatBot: There is no one person who can be credited with inventing light. Instead, it is the result of centuries of scientific discovery and experimentation.

You: Which country has the highest GDP?

ChatBot: The United States has the highest GDP.

Welcome to the AI Chatbot!

This program can summarize, paraphrase, and chat with you.

Please select an option:

1. Summarize text
2. Paraphrase a sentence
3. Chat with the ChatBot
4. Translate a text
5. Exit program

Enter your choice (1/2/3/4/5): 4

Please enter the language that you want translate: Korean

Enter the sentence to translate: The weather is good today.

Translation: 오늘 날씨가 좋아요 .

Please select an option:

1. Summarize text
2. Paraphrase a sentence
3. Chat with the ChatBot
4. Translate a text
5. Exit program

Enter your choice (1/2/3/4/5): 5

Thank you for using the AI Chatbot!



Future enhancements of ChatBot

Auto-correction: ChatBot could be used to suggest corrections for misspelled words or grammatical errors in real-time.

Content generation: Text editors could use ChatBot to generate content automatically, such as generating summaries or completing templates based on user input.

Plagiarism detection: Text editors could integrate with ChatBot to detect potential cases of plagiarism in real-time, alerting users to potential issues before they become a problem.

Language translation: ChatBot could be used to translate text from one language to another within the text editor, making it easier for users to work with text in different languages.

- Collaborative work
- Working on a project using different methods and techniques
- Fair contribution of each member
- How to use an API (most important!!!)
- Try to share new ideas with each other
- being developed at the same time



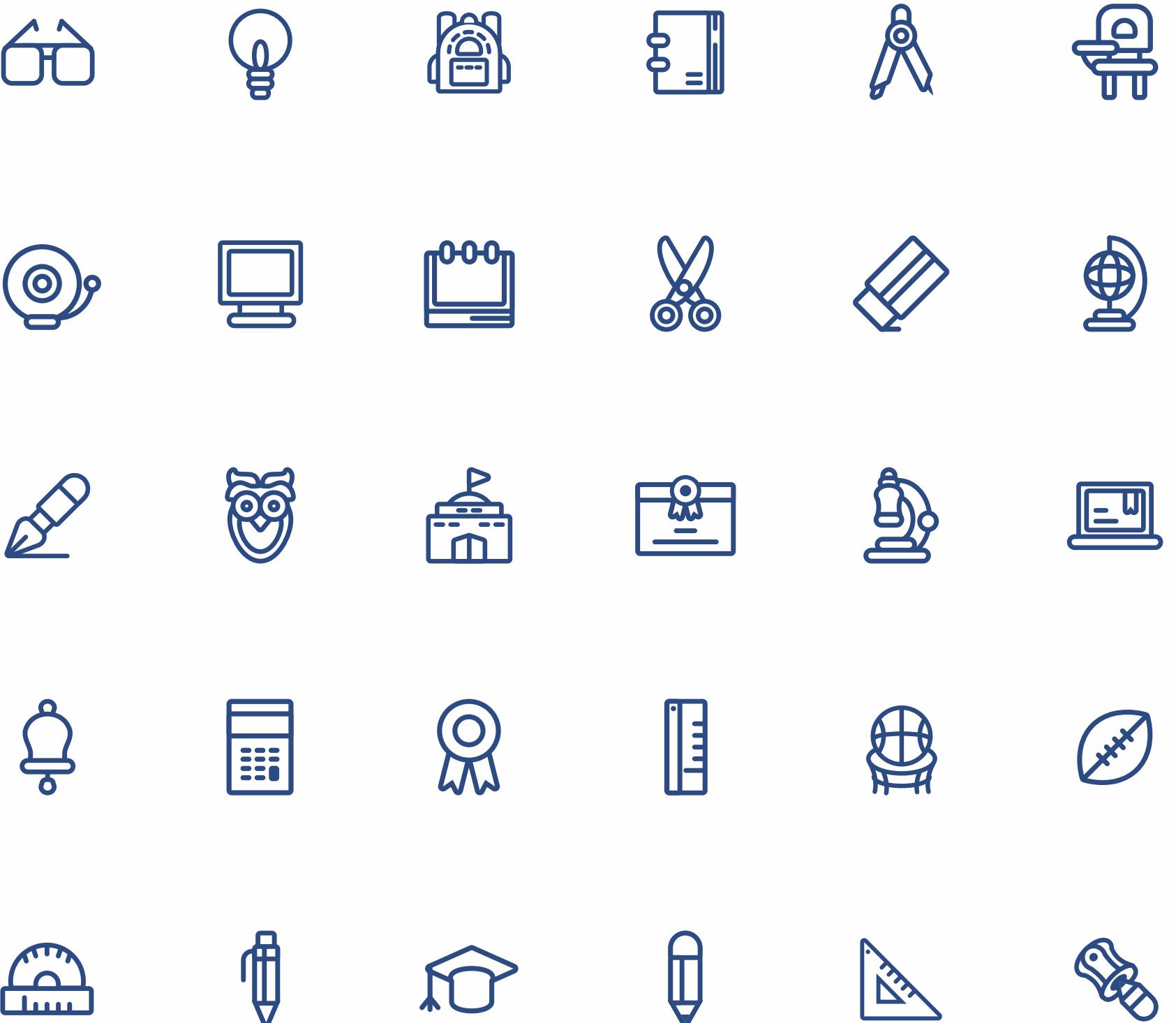
Thank You!

Resource Page

Use these design resources in your Canva Presentation.

Happy designing!

Don't forget to delete or hide this page before presenting.



Resource Page

Use these design resources
in your Canva Presentation.
Happy designing!

Don't forget to delete or hide
this page before presenting.



Resource Page

Find the magic and fun in presenting with Canva Presentations. Press the following keys while on Present mode!

Delete or hide this page before presenting.

B for blur

C for confetti

D for a drumroll

M for mic drop

O for bubbles

Q for quiet

U for unveil

Any number from 0-9 for a timer

Resource Page

Presenting live not your thing?
No worries! Record your Canva
Presentation your audience can
watch at their own pace.

Don't forget to delete or hide
this page before presenting.

Click the Share button on the top right corner of your screen
and select 'Present and Record.'

Click 'Go to recording studio,' where you can choose the video
and audio source for your video presentation.

Feel free to choose the 'No camera' option and record
your voice only.

Start recording, and press pause in between takes
if you have to.

Once you're done, download your Canva Presentation
in MP4 file format or get a link to your Talking Presentation
and share it with others.

You can also record a video inside the editor! Go to 'Uploads'
and click on 'Record yourself'.