

# RAG Bot

<https://rag-chat.oodleslab.com>

# Introduction

- The RAG (Retrieval-Augmented Generation) bot is designed to facilitate interaction with PDF documents through natural language queries.
- Users upload a PDF and ask the bot questions about the document's content.
- By leveraging the OpenAI API, the bot processes the input PDF and generates accurate responses based on the uploaded information.
- To access and interact with the bot, an OpenAI API secret key is required.
- LLM is used to interpret user queries and generate relevant, context-aware responses based on the PDF content.
- Also we integrated a vector database for efficient text storage and retrieval.
- Python serves as the primary programming language for developing the bot, handling tasks such as file processing, integrating with APIs, and managing interactions between the various components of the system.

# Process to generate OpenAI key

1. Login in Open AI platform by using this url “<https://platform.openai.com/docs/overview>”
2. Click on Dashboard menu “<https://platform.openai.com/assistants>”
3. Click on API keys from menu “<https://platform.openai.com/api-keys>”
4. Generate key by clicking on “Create new secret key” button at the top right
5. Give name for the key and create.
6. Once the API key created, copy it and save.
7. Generated key can be seen on the list.
8. Now, can use this OpenAPI key to access RAG bot. Make sure you have enough credit in the account to access OpenAI.

# Screen to upload PDF and ask Question



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Please Upload your PDF Documents here

OpenAI API Key

Enter your OpenAI API Key

Upload here



Drag and drop file here

Limit 200MB per file & PDF

Browse files

Ask questions about related PDF

Type question and hit enter

# PDF Upload and Response from Bot

I have used following PDF to query using RAG bot  
<https://cdn.fs.teachablecdn.com/hbhJC0QeSm83auwNIFuQ>

- Use Case 1: I have asked to summarize the pdf content

BOT Response: The document discusses the concept of Java classes and objects, and how they are used to create templates or blueprints for objects. It also explains how objects are created and stored in the Java heap, and how the JVM manages memory through garbage collection. The document also covers the different types of variables in Java, including primitive and reference variables, and how they are declared and initialized.

- Use Case 2: How to create object in java and assigning object to reference variable

To create an object in Java, we use the keyword "new" followed by the name of the class. For example, if we have a class called "Student", we can create an object of that class by writing "new Student();". This will create a new object in the Java heap. To assign this object to a reference variable, we need to declare the variable with the class type and then use the assignment operator "=" to assign the object to the variable. For example, we can write "Student s = new Student();" to create an object of the Student class and assign it to the reference variable "s".

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Please Upload your PDF Documents here

OpenAI API Key

sk-FH8KOM4dARnSiaf4X\_y0JbNhDfwE1fWcRpS02JpBUST3BlbkFjytkKLpZ8-uLvhuHloHWN0yTYcyalQINH9NV-UNzdsA

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2014-04-22\_14-44-49\_Lecture1.pdf 0.2MB

Ask questions about related PDF

Summarize the document content

The document discusses the concept of Java classes and objects, and how they are used to create templates or blueprints for objects. It also explains how objects are created and stored in the Java heap, and how the JVM manages memory through garbage collection. The document also covers the different types of variables in Java, including primitive and reference variables, and how they are declared and initialized.

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## Please Upload your PDF Documents here

OpenAI API Key

sk-FH8KOM4dARnSiaf4X\_y0JbNhDfwE1fWcRpS02JpBUST3BlbkFjytKKLpZ8-uLvhuHloHWN0yTYcyaIQiNH9NV-UNzdsA

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2014-04-22\_14-44-49\_Lecture1.pdf 0.2MB

Ask questions about related PDF

How to create object in java and assigning object to reference variable

To create an object in Java, we use the keyword "new" followed by the name of the class. For example, if we have a class called "Student", we can create an object of that class by writing "new Student()". This will create a new object in the Java heap. To assign this object to a reference variable, we need to declare the variable with the class type and then use the assignment operator "=" to assign the object to the variable. For example, we can write "Student s = new Student();" to create an object of the Student class and assign it to the reference variable "s".

# Tech Stack

Technology	Version	Description
OpenAI	0.71	To handle language understanding and response generation.
LLM	-	To understand queries, generate responses and contextualize information
Python	3.10	Manages file processing, API integration, and system interactions.
Vector DB	-	Stores and retrieves vectorized text for efficient information retrieval.