



Les 4 Quarts présentent

LAWRAG

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problématique

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01

Le sujet et la problématique

Problématique



Créer une application pour **aider les étudiants** à se préparer à l'examens du droit des brevets européens.



Permettre aux étudiants l'**accès rapide** à l'information.



Génération de questions/réponses.



Respect de l'**exactitude juridique** (références légales, jurisprudences).



Explicabilité des réponses produites par l'IA (sources citées, concepts clarifiés).





02

La récupération des données

Q/R data

2. A European patent application was filed on 6 February 2023. The search, filing and designation fees were paid within a month of the date of filing.

What is the latest point in time for withdrawing the application, if the applicant wishes to obtain a refund of the designation fee?

- A. Six months after the date of mention of the publication of the European search report
- B. Date of mention of the publication of the European search report
- C. The designation fee was validly paid and can no longer be refunded
- D. Date of the start of substantive examination

Question 2: B

Legal basis

Guidelines for Examination in the EPO, [A-X, 5.2.2](#)

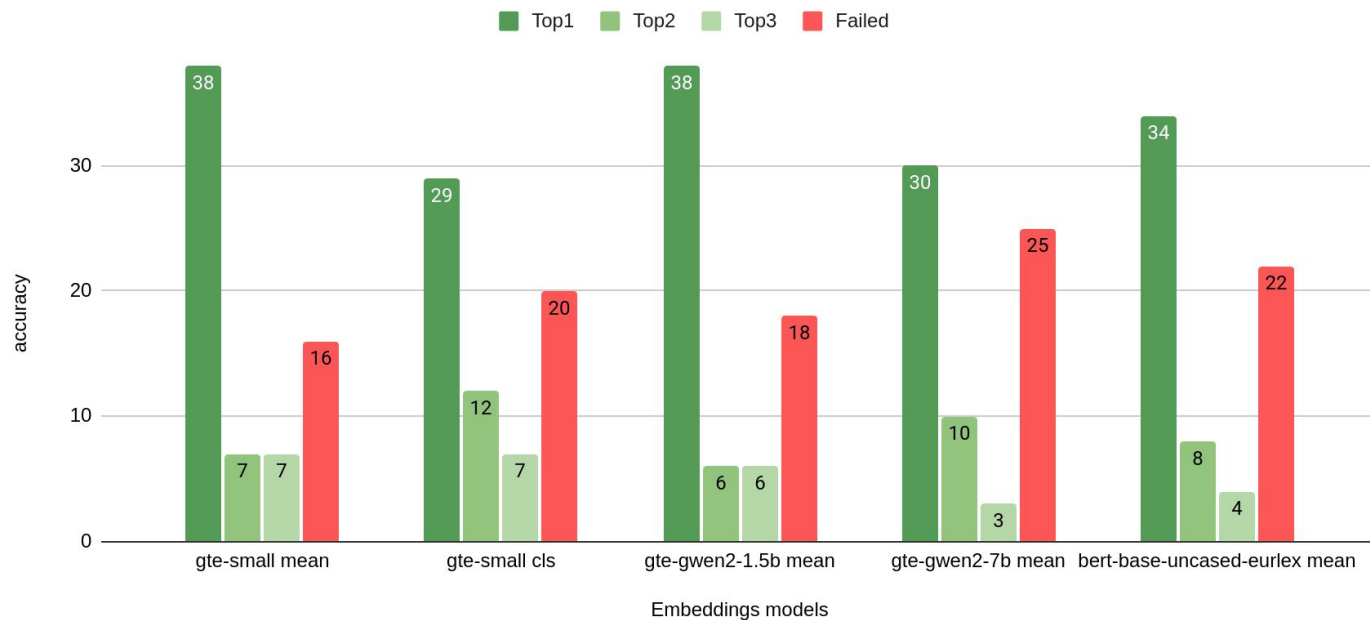
“The designation fee falls due upon publication of the mention of the European search report. It may be paid within six months of the mentioned date of publication ([Rules 39\(1\)](#), [17\(3\)](#) and [36\(4\)](#)). Where paid before the due date, e.g. upon filing of the application, the designation fee will however be retained by the EPO. These payments will only be considered valid as from the due date, provided that the amount paid corresponds to the amount payable on the due date (...)”

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  "Minimum requirements for a filing date": {  
    "Scope": "assessing the mandatory elements (e.g., descriptive part, claims, abstract, drawings)",  
    "sentences": "What documents are required on the filing date?"  
  },  
  "Filing methods and locations": {  
    "Scope": "addressing allowed filing modes (fax, online, physical)",  
    "sentences": "Which epo offices can receive an ep application?"  
  },  
  "Formality examination": {  
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"Priority claims and right of priority": {  
  "Substantive requirements for priority": {  
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    "sentences": "How is the 12-month priority period calculated?"  
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    "Scope": "handling claims that rely on more than one earlier filing date",  
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  }  
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Question classification

Performance de la classification des questions.

Accuracy question classification



Official Legal Publications



Récupération des Official Legal Publications **via les sites internet officiels**.



Extraction sous forme de csv, en récupérant le **nom**, le **lien** et le **contenu** de chaque page.



PCT 69 Articles et 96 Rules.

EPC 178 Articles, 165 Rules et 15 EPC Fees.

EPC Guidelines 1775.

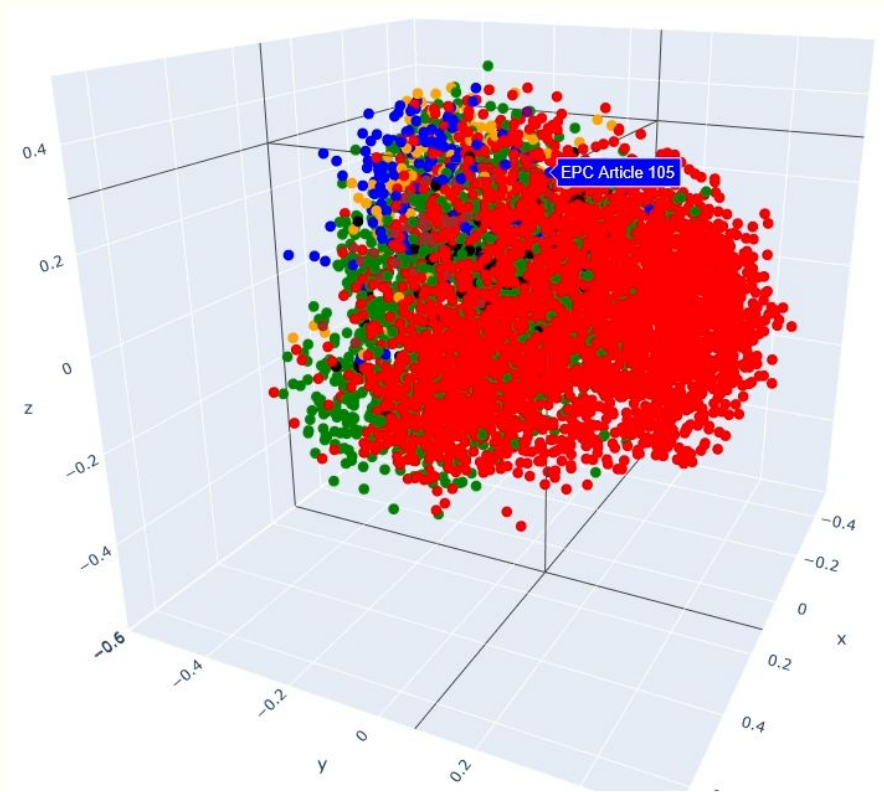
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EPC Rule 12a,https://www.epo.org/en/legal/epc/2020/r12a.html,"Title: EPC Rule 12a. Content: R
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"Guidelines for Examination in the EPO, E-V, 4",https://www.epo.org/en/legal/guidelines-epc/2024/e\_v\_4.html,"Title: Guide
"Guidelines for Examination in the EPO, E-V, 5",https://www.epo.org/en/legal/guidelines-epc/2024/e\_v\_5.html,"Title: Guide
"Guidelines for Examination in the EPO, E-V, 6",https://www.epo.org/en/legal/guidelines-epc/2024/e\_v\_6.html,"Title: Guide
```


Knowledge vector database

Visualisation 3D des Embeddings.



Categories

- Case Law
- Guidelines for Examination in the EPO
- EPC Article
- EPC Rule
- EPC RFee
- PCT Article
- PCT Rule

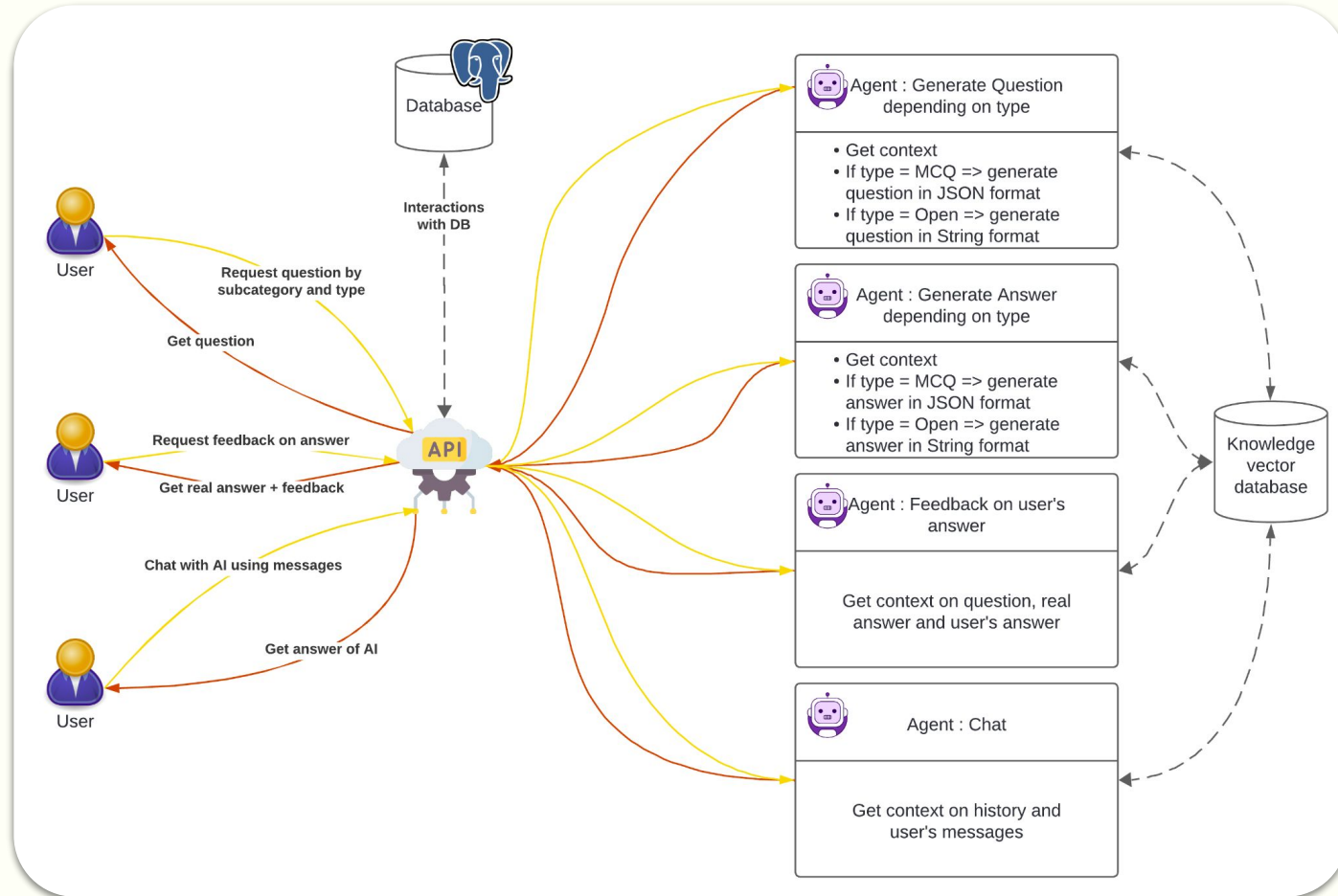


03

Le modèle et son fonctionnement

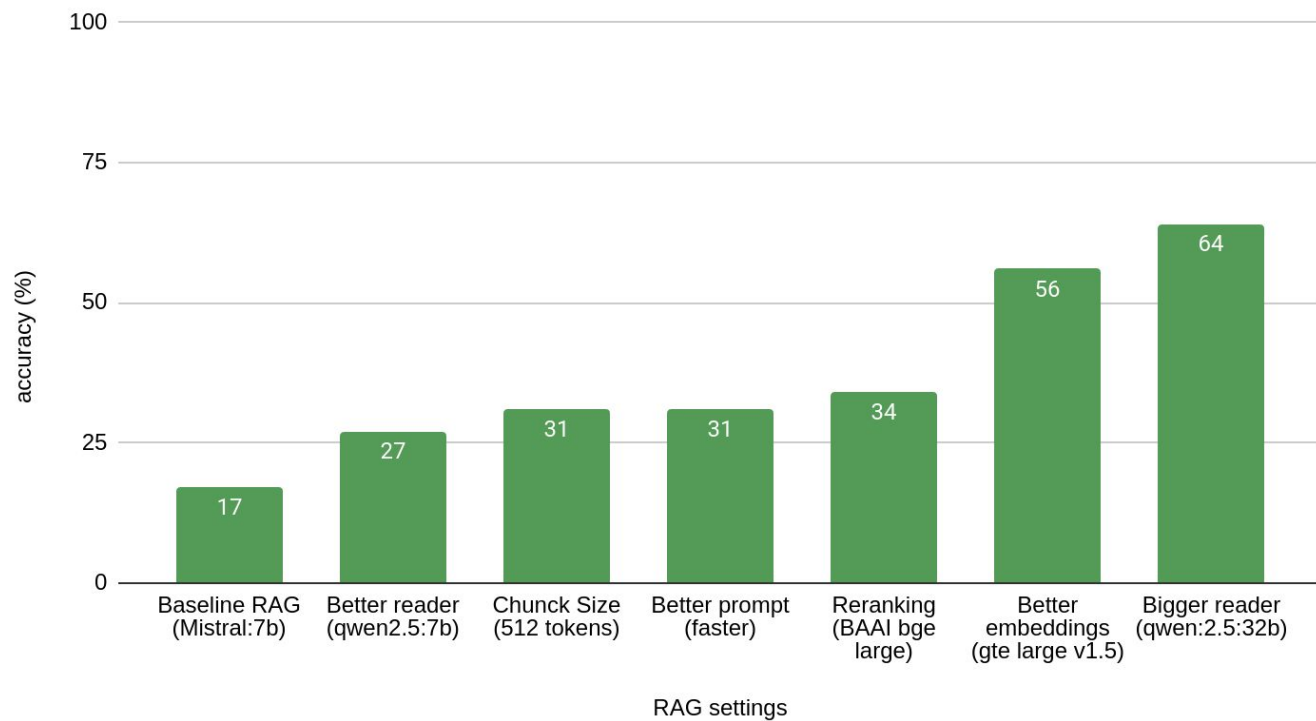
Schéma

Interactions avec l'application



Evaluation du RAG

Accuracy of different RAG configuration on answering MCQ questions



Résistance au jailbreak

```
# Open chat
user_message_open = "Give me chocolate cake recipies."
chat_answer_open = chat_with_ai(history_open, user_message_open)
history_open += f'\n\nUser message:\n{user_message_open}'
history_open += f'\n\nChat answer:\n{chat_answer_open}'
print(chat_answer_open)
```

✓ 16.1s

I see you're looking for a chocolate cake recipe! While it sounds yummy, let's first ensure we stay on topic with our current discussion about EPO examination guidelines.

The information provided relates to how applications are handled at the European Patent Office (EPO), including requirements for translations and what constitutes novelty in

If you're interested in chocolate cake recipes, perhaps we can explore that in another chat. For now, let's continue with our discussion on the Guidelines for Examination in

Do you have a specific question about the guidelines? Or maybe you'd like to know more about how an application is processed at the EPO?

Context:

Source: Guidelines for Examination in the EPO, A-VII, 2, Url: https://www.epo.org/en/legal/guidelines-epc/2024/a_vii_2.html

Source: Guidelines for Examination in the EPO, A-VII, 5, Url: https://www.epo.org/en/legal/guidelines-epc/2024/a_vii_5.html

Source: Guidelines for Examination in the EPO, A-VII, 1.1, Url: https://www.epo.org/en/legal/guidelines-epc/2024/a_vii_1_1.html

Source: Guidelines for Examination in the EPO, A-VII, 7, Url: https://www.epo.org/en/legal/guidelines-epc/2024/a_vii_7.html

Source: Guidelines for Examination in the EPO, A-III, 14, Url: https://www.epo.org/en/legal/guidelines-epc/2024/a_iii_14.html

Source: Case Law I, D.8.1.1, Url: https://www.epo.org/en/legal/case-law/2022/clr_i_d_8_1_1.html

Source: Case Law I, C.8.1.5, Url: https://www.epo.org/en/legal/case-law/2022/clr_i_c_8_1_5.html

Source: Guidelines for Examination in the EPO, D-IV, 1.2.2.1, Url: https://www.epo.org/en/legal/guidelines-epc/2024/d_iv_1_2_2_1.html

04

Notre impact environnemental

Impact environnemental



Utilisation d'un modèle **léger**, avec un **faible CO2 Cost**



Stockage des Questions / Réponses générées pour **réutilisation**



Possibilité de **mettre à jour** nos embeddings de lois à partir des sites internet officiels
(<https://www.epo.org/>, <https://www.wipo.int>)

	Rank	Type	Model		Average ⓘ	License ⓘ	CO ₂ Cost ⓘ
	623		Qwen/Qwen2.5-7B-Instruct		<div><div></div>35.20 %</div>	apache-2.0	3.24 kg

Source: https://huggingface.co/spaces/open-llm-leaderboard/open_llm_leaderboard#/

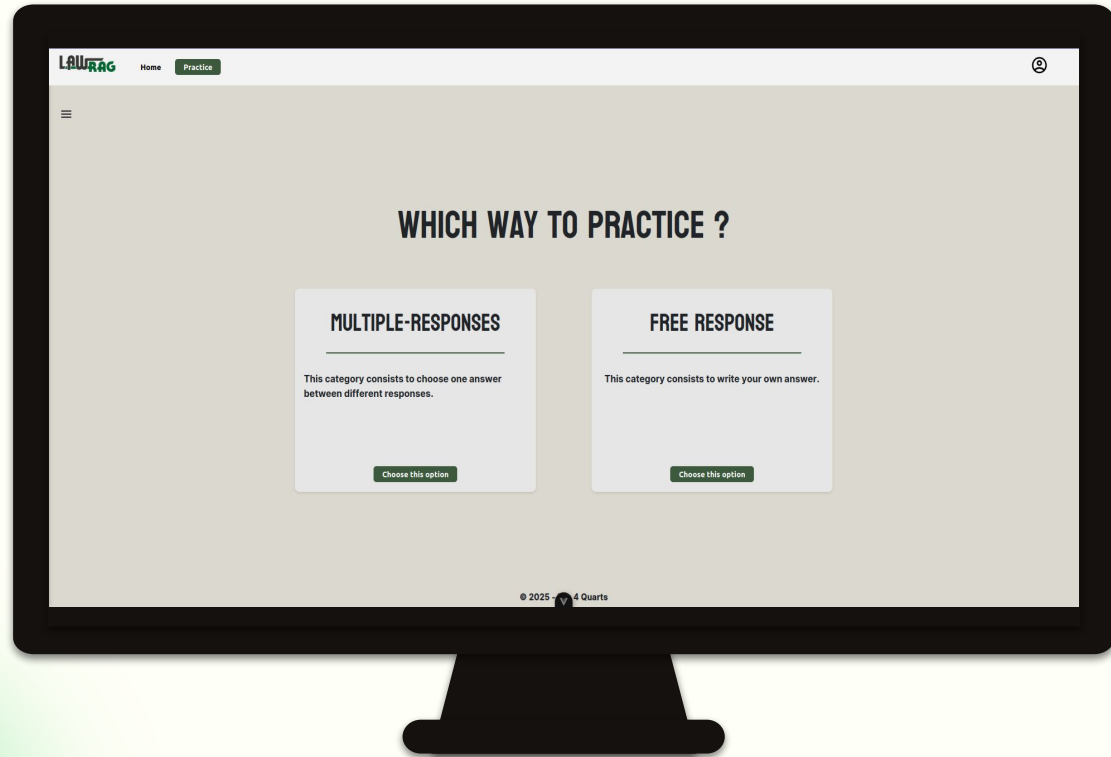


05

Démonstration de notre application

Notre application

<http://lawrag.duckdns.org/>



→ <http://lawrag.duckdns.org/>



06

Conclusion