

[illegible]

SPRING AI

GENERATIVE ARTIFICIAL INTELLIGENCE CON JAVA

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Corso avanzato per Venis S.p.A, Venezia, Italia

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Note

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



PARTE 2 - APPROCCIO DOCUMENT TO VECTOR STORE

Note

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This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page, providing a template for writing or drawing. There are no margins, text, or other markings on the paper.

```
...
<dependency>
  <groupId>org.springframework.ai</groupId>
  <artifactId>spring-ai-tika-document-reader</artifactId>
</dependency>
...
```

Note

[illegible]

```
spring:
  ...
  profiles:
    active: rag-document-to-vector-store
autoconfigure:
  ...
```

Note

[illegible]

```
demo:
  rag:
    prompt:
      system:
        ita: classpath:templates/get-rag-hr-data-system-ita-prompt.st
        eng: classpath:templates/get-rag-hr-data-system-eng-prompt.st
      user:
        ita:
        eng:
    vectorstore:
      qdrant:
        collection-name:
          ollama: vector_store_dtvvs_ollama
          gemini: vector_store_dtvvs_gemini
```

[illegible]

Sei un assistente utile che risponde a domande sulle politiche di risorse umane dell'azienda Venis SpA ai suoi dipendenti.
 Dato il contesto nella sezione DOCUMENTI e senza conoscenze pregresse, rispondi alla domanda del dipendente.
 Se la risposta non si trova nella sezione DOCUMENTI, rispondi che non puoi rispondere alla domanda.

You are an helpful assistant, answering questions about Venis SpA policies to it's employees.
Given the context in the DOCUMENTS section and no prior knowledge, answer the employee's question.
If the answer is not in the DOCUMENTS section, then reply that you cannot answer to the question.

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```
package it.venis.ai.spring.demo.rag;

...

@Component
@Profile("rag-document-to-vector-store")
public class DocumentDataLoader {

    private final VectorStore geminiVectorStore;
    private final VectorStore ollamaVectorStore;

    public DocumentDataLoader(@Qualifier("geminiVectorStore") VectorStore geminiVectorStore,
                              @Qualifier("ollamaVectorStore") VectorStore ollamaVectorStore) {
        this.geminiVectorStore = geminiVectorStore;
        this.ollamaVectorStore = ollamaVectorStore;
    }

    @Value("classpath:Venis_HR_Policies_ENG.pdf")
    Resource venisHREngDocument;

    @Value("classpath:Venis_Politiche_HR_ITA.pdf")
    Resource venisHRItaDocument;

    ...
}
```

Note

[illegible]

```
...
@PostConstruct
public void loadVenisHREngDocumentIntoVectorStore() {

    SearchRequest searchRequest = SearchRequest.builder()
        .query("Check")
        .similarityThresholdAll()
        .build();

    List<Document> similarDocs = geminiVectorStore.similaritySearch(searchRequest);

    if (similarDocs.size() == 0) {
        TikaDocumentReader tikaDocumentReader = new TikaDocumentReader(venisHREngDocument);

        List<Document> docs = tikaDocumentReader.get();

        TextSplitter textSplitter = TokenTextSplitter.builder()
            .withChunkSize(100)
            .withMaxNumChunks(400)
            .withKeepSeparator(true)
            .build();

        this.geminiVectorStore.add(textSplitter.split(docs));
    }
}
...
```

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Componente popolamento Qdrant - III

```

...
@PostConstruct
public void loadVenisHRItaDocumentIntoVectorStore() {

    SearchRequest searchRequest = SearchRequest.builder()
        .query("Check")
        .similarityThresholdAll()
        .build();

    List<Document> similarDocs = ollamaVectorStore.similaritySearch(searchRequest);

    if (similarDocs.size() == 0) {
        TikaDocumentReader tikaDocumentReader = new TikaDocumentReader(venisHRItaDocument);

        List<Document> docs = tikaDocumentReader.get();

        TextSplitter textSplitter = TokenTextSplitter.builder()
            .withChunkSize(100)
            .withMaxNumChunks(400)
            .withKeepSeparator(false)
            .build();

        this.ollamaVectorStore.add(textSplitter.split(docs));
    }
}
}

```

Note

[illegible]

Collections

UPLOAD SNAPSHOT

Name	Status	Points (Approx)	Segments	Shards	Vectors Configuration (Name, Size, Distance)	Actions
vector_store_dtvs_gemini	● green	16	8	1	default 3072 Cosine	
vector_store_dtvs_ollama	● green	23	8	1	default 768 Cosine	

v1.13.0

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Branch:

Note