

December 2024

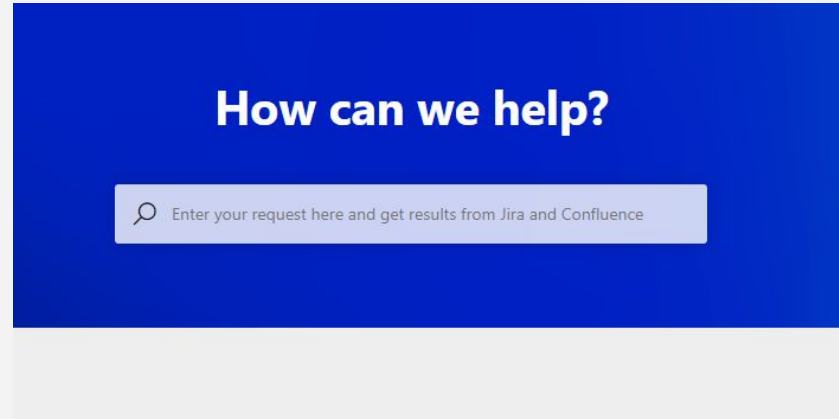
Support Ticket Suggester

Using RAG to create the best
suitable suggestion for
Support Ticket system



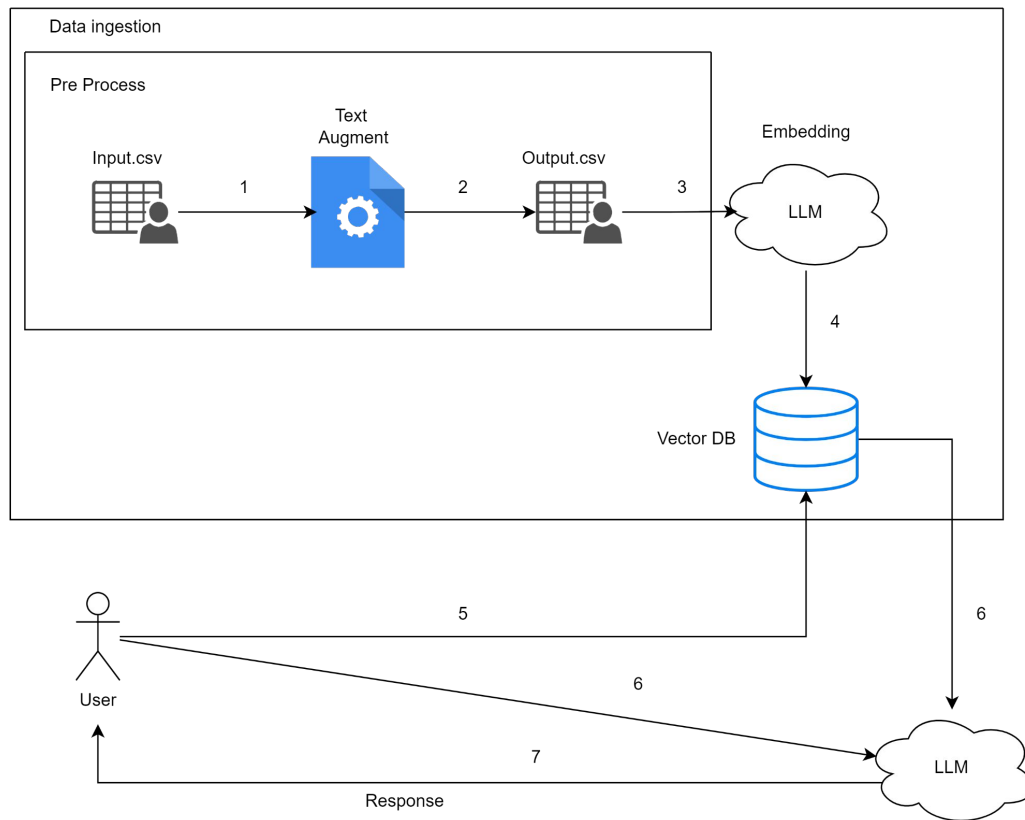
Problem

- Currently we have search in Ciklum service Desk, which will give result in jira and confluence
- Request items need to be searched by going to each category, sub-category and find the best match request based on the description.
- As it expects users to have the knowledge about about the each category and its subcategories for raising request
- The search is not listing the matching request page to raise the request



Structured Data

Category	Sub Category	Description	Url
Google Mail & Apps	Create new mail group	Request new mail group for your work needs	https://jira.ciklum.net/plugins/servlet/desk/portal/20/create/325
Software & Business Applications	Request HUB functionality modification	Request new functionality or modification of HUB system	https://jira.ciklum.net/plugins/servlet/desk/portal/20/create/339
Software & Business Applications	Sesame support issue	Request a fix of functionality or modification of Sesame system	https://jira.ciklum.net/plugins/servlet/desk/portal/20/create/535



Problems faced in Development

- RAG with structured data is used to create query and which is not aware for data
- Data given in the description is not having enough detail to map in the vectorDB. Because of which the data retrieved using the vectorDB is not proper.
- For instance, when asked to rename in the hub, we were getting response with AWS sandbox data
 - **User:** want to change name in hub
 - **System:** {
 'category': 'DevOps services',
 'description': 'AWS Sandbox',
 'sub_category': ',Create Sandbox for test', 'url':
 'https://jira.ciklum.net/plugins/servlet/desk/portal/20/create/903'
 }

Data Augmentation

Description is processed with Synonym Augment to create more detail description, Which is feed to the embedding creates more appropriate results.

- **User:** want to change name in hub
- **System:** {
 'category': 'Software & Business Applications',
 'description': 'Request new functionality or modification of HUB system',
 'sub_category': 'Request HUB functionality modification',
 'url': 'https://jira.ciklum.net/plugins/servlet/desk/portal/20/create/339'
}



Thank you!

