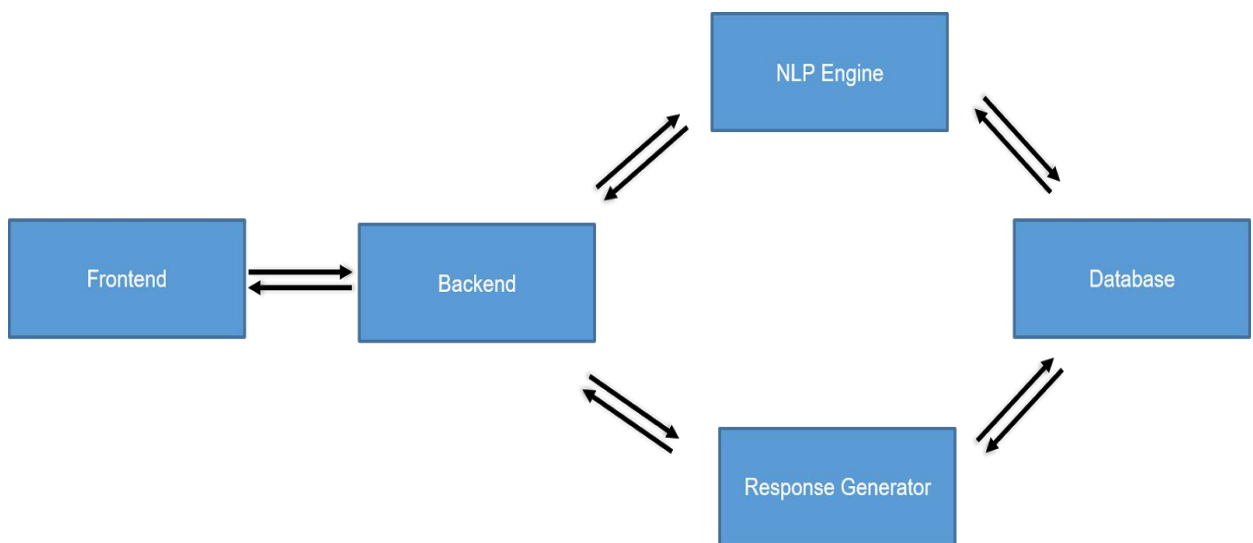


Backend Module

Aim:

Backend development refers to the server side development. The main focus of backend in this project is to connect the frontend with the NLP model and the databases.

General Architecture:



Tools and technology :

We take help of Python Django and DjangoRest framework to code our backend. The backend structure is designed in such a way to ensure modularity. As one can see all the components of the project are connecting through one another through the backend.

Working of the module:

- The backend receives the user input from the frontend as a JSON object.
- It is converted into a Python dictionary using an in-built function called `json.loads()`.
- The value of the dictionary (string) is then sent to the NLP engine to match the question with the closest question in the database. Since the backend and NLP engine are in the same module, this is achieved through a simple function call.
- The backend receives a string from the NLP engine which stores the exact question from the database.
- In case the NLP engine fails to match the question with a significant accuracy, it returns a flag value = -1.
- The backend then sends this NLP engine output to the response generator module, along with the user input question.
- The response generator handles the input and sends an appropriate output which is received in a string.
- This string is added to dictionary and sent back to the frontend as a Json object using an inbuilt function called `JsonResponse`.

Deliverables:

Backend is at the core of the model. Connecting and interacting with various components while ensuring modularity, and handling error cases.