**DOMAIN : ARTIFICIAL INTELLIGENCE**

**PROJECT TITLE : CHATBOT USING PYTHON**

**PHASE :03**

Our Institutional Chatbot, developed using Python's advanced AI capabilities, facilitates seamless communication within our institution. It swiftly provides accurate assistance for diverse queries, ensuring a user-friendly experience for students, faculty, and staff. With stringent data security measures, it prioritizes privacy and confidentiality.

Adaptable and efficient, the chatbot streamlines communication and problem-solving, enhancing the overall user experience. Its sophisticated natural language processing abilities enable it to continually learn and evolve, catering to the dynamic needs of our institution while maintaining a high standard of reliability and engagement.

**CODE :**

**BACKEND:**

**Controller.py2:**

import spacy

import csv

from translate import Translator

nlp = spacy.load('en\_core\_web\_sm')

questions = []

answers = []

with open('dataset.csv', 'r') as file:

    reader = csv.reader(file)

    next(reader)  # Skip the header row

    for row in reader:

        questions.append(row[0])

        answers.append(row[1])

def get\_answer(user\_input):

    user\_input = user\_input.lower()

    doc = nlp(user\_input)

    for i, question in enumerate(questions):

        question\_doc = nlp(question.lower())

        similarity = doc.similarity(question\_doc)

        if similarity > 0.6:

            return answers[i]

    return "Sorry, I couldn't find an answer to your question."

def translate(sentence,code):

    translater = Translator(from\_lang="en",to\_lang=code)

    translated = translater.translate(sentence)

    return translated

**main.py:**

import uvicorn

from fastapi import FastAPI

from controller import get\_answer, translate

from schema import question, translating

from fastapi.middleware.cors import CORSMiddleware

app = FastAPI()

app.add\_middleware(

    CORSMiddleware,

    allow\_origins=["\*"],

    allow\_credentials=True,

    allow\_methods=["\*"],

    allow\_headers=["\*"],

)

@app.get("/")

def working():

    return "API Working"

@app.post('/ask')

def askQuestion(ques:question):

    return get\_answer(ques.question)

@app.post('/translate')

def translater(translating: translating):

    return translate(translating.sentence,translating.code)

if '\_\_main\_\_'==\_\_name\_\_:

    uvicorn.run(

        'main:app',

        reload=True,

        port=8000,

        host='localhost'

    )

**Schema.py:**

from pydantic import BaseModel

class question(BaseModel):

    question: str

class translating(BaseModel):

    sentence: str

    code: str

**dataset.csv:**

Question,Answer

What majors or programs do you offer?,"We offer a wide range of undergraduate and graduate programs, including business, engineering, liberal arts, and more. You can find the complete list on our website."

How do I apply for admission?,"To apply for admission, visit our admissions portal on our website and follow the instructions for the program you're interested in."

What is the application deadline for the upcoming semester?,The application deadline for the upcoming semester is [Insert Deadline]. Be sure to submit your application and all required documents by this date.

Can you provide information about campus tours?,We offer campus tours for prospective students. You can schedule a tour through our website or contact our admissions office for more information.

How do I transfer my credits from another institution?,"To transfer credits, please review our credit transfer policy on our website and follow the outlined steps to initiate the process."

What is the tuition fee for the current academic year?,The tuition fee for the current academic year is [Insert Tuition Amount]. Please note that tuition fees may vary by program.

Do you offer any scholarships or financial aid options?,"Yes, we offer various scholarships and financial aid options. You can find more details on our financial aid webpage."

Can you explain the dormitory options and costs?,"We have several on-campus housing options. Detailed information about dormitory types, costs, and the application process can be found on our housing page."

Who is the head of the [Department Name] department?,The head of the [Department Name] department is [Department Head's Name]. You can contact them at [Department Head's Email].

Tell me about the student-faculty ratio.,Our student-faculty ratio is [Student-Faculty Ratio]. This ensures personalized attention and a close-knit academic community.

What are the library hours of operation?,Our library is open from [Opening Time] to [Closing Time] on [Days of the Week]. Additional hours may apply during exam periods.

Are there opportunities for undergraduate research?,"Yes, we offer undergraduate research opportunities. You can connect with professors and explore research projects in your area of interest."

How can I get involved in student organizations?,"To join student organizations, attend the student activities fair at the beginning of the semester or check our website for a list of active clubs and how to join them."

Can you provide information about the [Upcoming Event] event?,The [Upcoming Event] event will be [Event Date and Time].

How do I access online learning resources?,You can access online learning resources through our learning management system. Please log in with your student credentials to access course materials and assignments.

What are the requirements for graduation in [Major]?,Graduation requirements for [Major] include completing [List Specific Requirements]. Make sure to review your program's academic advising guide for details.

How do I reset my student portal password?,"To reset your student portal password, visit our password reset page on our website and follow the instructions provided."

Tell me about career counseling services.,"We offer comprehensive career counseling services to help you with career planning, job searches, and interview preparation. Schedule an appointment with our career counselors through our career services website."

Can you help me with international student admissions?,"For information on international student admissions, please visit our international admissions webpage or contact our international admissions office."

What is the policy on academic probation?,"Our academic probation policy requires students to maintain a minimum GPA of [Minimum GPA]. If your GPA falls below this threshold, you will be placed on academic probation."

How can I purchase a parking permit?,You can purchase a parking permit by visiting our parking services office in [Location] or by completing the online permit application on our website.

Explain the procedure for dropping a course.,"To drop a course, log in to your student portal, navigate to the registration section, and follow the course withdrawal procedure outlined in our academic policies."

Tell me about study abroad programs.,Our study abroad programs offer students the opportunity to explore international learning experiences. Please visit our study abroad office or website for detailed program information.

What is the procedure for deferring admission?,The procedure for deferring admission involves submitting a formal deferral request to our admissions office. Contact them for the necessary forms and guidelines.

Who are the professors teaching [Course Name] this semester?,"To find out who is teaching [Course Name] this semester, please check the course schedule on our website or contact the academic department responsible for the course."

How can I report a campus safety concern?,"If you need to report a campus safety concern, please contact our campus security office at [Security Office Contact]."

What are the prerequisites for [Course Name]?,Prerequisites for [Course Name] are listed in the course catalog and may vary by semester. Review the course description or contact the department for specific requirements.

How do I request an official transcript?,"To request an official transcript, please visit our registrar's office in [Location] or submit an online request through our registrar's website."

Can you provide information on the on-campus health center?,"Information about the on-campus health center, including services and hours of operation, can be found on our health center's website."

Tell me about the upcoming [Career Fair Name] career fair.,"Details about the upcoming [Career Fair Name] career fair, including date, time, and participating employers, will be available on our career services webpage closer to the event date."

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**TEAM MEMBERS:**

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