

University Admission Chatbot – Report

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1. Introduction

This Python code creates a web-based chatbot using the Flask framework for university admission queries. The application interacts with users by providing automated responses about various university services and admission details.

2. Libraries Used

- Flask: A micro web framework used for setting up the web server and handling HTTP requests.
- NLTK: A natural language processing library used to create the pattern-based chatbot.

3. Functions and Workflow

- Home Route (/):

```
@app.route("/")
def index():
    return render_template("index.html")
```

Displays a simple welcome message with a user interface where users can type their questions.

A link is provided to initiate conversation with the bot.

- Chatbot Route (/get):

```
@app.route("/get", methods=["GET"])
def get_bot_response():
    user_text = request.args.get("msg")
    response = chatbot_app(user_text)
    return jsonify({"response": response})
```

Takes user input via GET request and passes it to the chatbot_app() function.

```
(r"(?i).*miss.*admission deadline.*",
 ["Late applications may be considered based on seat availability and department approval."]),
(r"(?i).*admission process take.*",
 ["The process usually takes 1-2 weeks after submission of complete documents."]),
(r"(?i).*laptops required.*",
 ["While not mandatory for all, laptops are highly recommended, especially for IT-related programs."]),
(r"(?i).*admission tests.*online.*",
 ["Some entry tests may be conducted online, depending on the department's policy."]),
(r"(?i).*check.*admission status.*",
 ["After applying, you can check your status through the online admission portal or contact admissions."])
(r".*", ["I'm sorry, I don't have information about that. Could you rephrase?"])
]

chatbot = Chat(pairs)

def chatbot_app(user_input):
    if user_input.lower() in ["quit", "bye"]:
        return "Goodbye! Have a great day 😊"
    response = chatbot.respond(user_input)
    return response
```

The function matches the input with predefined patterns using NLTK's Chat class and returns a suitable response.

If no match is found, a default response is given.

4. Code Execution and Output

- The code starts a Flask web server that listens for requests at localhost:5000. The chatbot responds to user queries regarding university admissions, campus facilities, programs, etc.

5. Screenshot of Output

