

Birla Institute of Technology and Science, Pilani
Hyderabad Campus

2nd Semester 2017-2018 (CS F407: Artificial Intelligence)

Assignment 1 (Max Marks: 7), Date of Submission: 20th January 2018 (11.55pm)

In this assignment, you will create a messenger bot using Python which can provide intelligent dialog conversations with the user, similar to ELIZA or ALICE discussed in the class. An example conversation is as shown below:

User: Hi, my name is Raj.

Bot: Hi Raj, how are you?

User: I am fine.

Bot: Good to know that.

User: Do you know any nearby eateries in BITS Hyderabad?

Bot: I can let you know some.

User: No I don't want.

Bot: Why is that?

User: I am not hungry.

Bot: Are you telling you are not hungry?

User: Yes.

Bot: But you wanted to know about places to eat in BITS Hyderabad?

The messenger bot has to use a knowledgebase with multiple random responses exchanged between the user and the bot. The bot should be able to give replies to multiple interactions and should be able to store the conversations in a database/knowledgebase. The knowledgebase can be stored using MySQL, SQLite or in any other flat file. These can store persistent copies of the interactions. The bot should also be able to interact with web services and help the user with multiple tasks which might be in the form of knowing the weather (Forecast.io API or any open source API), etc. The interactions with the web services have to be created using RESTful services (you can use Flask). The bot should also be able to recommend you good eateries within the BITS, Hyderabad campus. Create your own corpus for recommending such eateries. You should use Artificial Intelligence Markup Language (AIML) for creating the core of the chatbot. The frontend should be an Android app developed by you for this purpose. No machine learning is to be used and the whole assignment would be based on keyword matching and intent recognition.

Mode of Submission:

Form your own groups of three only. Tar the entire source and executable files with your id as the tar file name (e.g. f20150055.tar) and send it to the mail id: p20150408@hyderabad.bits-pilani.ac.in. Include a readme.txt with your group details in your tar file. Submit only one file per group. (Reference: <https://www.devdungeon.com/content/ai-chat-bot-python-aiml>, <http://letzgro.net/blog/creating-ai-using-python/>)

(Date given: 11 January 2018)