Campus Information Chat Bot along with some other features

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Introduction and Overview of the project

The messenger bot uses a knowledgebase with multiple random responses exchanged between the user and the bot. The bot will be able to give replies to multiple interactions and should be able to store the conversations in a knowledgebase. AIML is a form of XML that defines rules for matching patterns and determining responses. The knowledge base is taken from https://code.google.com/archive/p/aiml-en-us-foundation-alice/downloads along with several of the aiml files which will be written by me. The aiml files which are written by me will contain knowledge of various subjects and faculty of the campus along with some other genral information about the campus too. The knowledgebase can be stored using SQLlite. These can store persistent copies of the interactions. The bot should be also 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). They also can Include Food Delivery Options to Campus and some other general information about the campus as well.

Functions which will be implemented

1. Location () - This function will take location from some websites which determine the geographical location of the device by their IP. For e.g. http://freegeoip.net/json. The location is taken so that we can pass it to the weather function which is discussed later.
2. Weather () - This function takes location from location () function and tell tell the corresponding weather of that place.
3. Primary Terminal Function () - before this function is called we will the aiml.kernel() function which will in turn call the start.aiml file which will load the entire dataset from which the AI answers our queries. The terminal Function will start which is an infinite while loop which would be terminated if we say "Bye " or something like that (which can be our choice) to the bot. The function would also implement the functionality to google something.

Concepts and Modules Used:

Rule based model in which the input is referenced with predefined rules in order to provide an exact or the nearest match to an output, from a predefined set. Modules/ Libraries used are:

- Aiml
- Json
- Sqllite3
- Webbrowser

Design Document

The chat will be terminal based. And the flow diagram of the process is as follows: