**Data flow**

Since the chatbot is text based chatbot, user need to interact with the bot with textual input. The bot is developed to mimic the human conversational flow. Initially user greets the bot with “hi or hello”. The bot returns response to asks Name of the user. After user provides name, the bot greets the user and suggests the command they can give to the user. The commands can be, “weather forecast, weather, todays weather etc.” After getting command the bot prompts to get location from the user. After user gives location data to the bot, the bot asks for weather choices like temperature, pressure, humidity or the condition. After getting the choice command from the user, the bot closes the session and new loop begins.

**Intent Model (Slots and Utterances)**

An intent is essentially a user’s goal, such as renting a hotel room, buying a pizza, or in our case, finding out about the weather. Every intent includes a set of utterances which are ways we would expect the consumer to pose a question. Although these sample utterances do not need to match 100% of what the consumer would say, they need to be reasonably correct, since Lex does not have any understanding of the English language at all. Since our bot is a simple weather bot, we trained our intent with 6 different utterances. The utterances make use of slots to mark the data. Slots are like a variable to store user input data. In our case, we have 3 different slots for 3 different intents. For getting user location we have **location** slot, for getting user choice of weather data we have **choice** slot, for getting user name we have **usrname** slot.

**Acting on Intents**

Once all the slots have been filled up, Lex sends a message to Lambda to "function" at the message of the recipient. In our case this message is to get the weather. In our lambda script at first, we are getting location data from the lex. After receiving location, we are prompting user to give choice of weather parameters like temp, pressure, humidity etc. Now lambda function has all necessary data from user. Now lambda calls openweathermap api with given parameters and the result is processed and passed to the lex.