Syllabus for Voice Based Chatbot with IBM Watson

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Module 1 - Introduction to Chatbots(2 hours)

- What are chatbots?
- The emergence of Messengers and AI
- Who are chatbots for?
- The chatbot we're going to build
- Open domain and closed domain chatbot

Module 2 - Introduction to Watson Assistant (formerly Conversation)(1 hours)

- Watson Assistant components
- Intents
- Entities
- Dialog
- Dos and Dont's of dialog design

Module 3 -Building Our Chatbot: Intents and Entities(1 hours)

- Creating a workspace
- Defining Chit Chat intents
- Defining Domain-Specific intents
- Defining entities

Module 4 -Building Our Chatbot Dialog(1.5 hours)

- The defaultWelcome nodes
- Creating Chit Chat dialog
- Simple conditions and responses
- Handling complex dialog flow

Module 5-Bilding complex Dialog for a Restaurant

Step 1: Plan the dialog(1.5 hours)

- Restaurant information
- Menu details
- Order cancellations

Step 2: Answer questions about the restaurant(2 hours)

- Add Intent name and set of question
- Add appropriate dialog node
- Add response type**. Select** image attachment on response

Step3 : Add Series of Intent,Dialog and response as per requirement to complete the Chatbot backend and deploy in IBM cloud

Watson Speech-to-Text(30 minutes)

- Configure and test speech to text service in IBM watson

Watson Text-to-Speech(30 minutes)

- Configure and test Text to Speech service in IBM Watson
- Flask Web application development
- Introduction to Flask for rapid chatbot development, webserver and how to handle request/response from jquery

Flow of Voice based chatbot:(2 hours)

1. User selects the microphone option on the browser and speaks.
2. The voice is passed on to Watson Speech to Text using a Web Socket connection.
3. The text from Watson Speech to Text is extracted and sent as input to Watson Assistant.
4. The response from Watson Assistant is passed onto Watson Text to Speech.
5. The audio output is sent to the web application and played back to the user, while the UI also displays the same text.

Coding realtime on voice based chatbot(6 hours)

- Installation of IBM API for speech and Watson Assistant on development environment
- Walk through main.py file which connect with Watson services as well as take chat input from Html,js based front end application with voice.
- Execution of complete voice application and deploy in IBM Watson cloud