

## Chapter 1 : Internet Relay Chat - Wikipedia

*The target demographic of this project is those using AIM, YIM, and even G-chat (gmail chat). If Chatzilla does not hold the features you need or want, you are already IRC-savvy and should know how to find a client to meet your needs, or you still don't know how to use Chatzilla's features.*

Get an SMS capable phone number used to send text messages. After completing the configuration, retrieve and copy the following information that will be required to configure the Node-RED Twilio node: Twilio active numbers Note: If you want to send text messages to another phone number, you must declare it on the Verified Caller IDs page. Twilio callers View image at full size Your Twilio service is configured and ready to be used for authentication 2FA. Traditional development can be very technical, but Node-RED enables you to concentrate on the logic of your workflow, allowing fast prototyping. Installation and first flow ". So, you must now install them. There are two ways to do that: Install node-red-contrib-db2-for-i and node-red-node-watson packages The node-red-contrib-db2-for-i package provides a node allowing to read and write to a local Db2 for i database from Node-RED on IBM i. Description can be found here. The node-red-node-watson package provides a collection of nodes for IBM Watson services. Description of packages and nodes, provided for Watson services, can be found here. Of course, it includes Watson Assistant node, which is the service supporting our chatbot dialog. As these packages can be useful for every project. You need to do a global installation using the npm shell command. Start a shell session. I recommend using SSH. To install the packages, run the following commands: Open your browser enter the URLhttp: In this case, new nodes will be available only in the running Node-RED environment. Click the menu icon at the upper-right corner and click Manage Palette. Click the Install tab and search for the word, "slack". In the list that appears, search for node-red-contrib-slack and click install. Install Slack nodes View image at full size Wait for the installation confirmation message. Next, let us install the Twilio node. Install it the same way you did for node-red-contrib-slack: Click the Install tab and search for the word, "twilio". In the list that appears, search for node-red-node-twilio and click install. Wait for the installation confirmation message. When restarted, take a look at the palette. In the Social category, three Slack nodes are now available. In the Mobile category, one Twilio node is now available. Slack and Twilio nodes View image at full size Import flow and configure nodes You are now going to import the chatbot flow and configure it to use your own services Watson Assistant, Slack, and Twilio previously configured. Click New flow, and then click Import. Import chatbot flow Click somewhere on the blank sheet to paste nodes. Have a quick look at chatbot flow. Figure 20 highlights the main logic of the flow. Chatbot flow overview The numbering in the figure corresponds to the numbering in the following procedure that explains the flow. Get the text entered by the user on Slack. Send it to the Watson Assistant service. This service understands the intent, identifies entities, defines what to answer. It sends back an answer for the Slack user and initializes variables in the context part of the JSON object exchanged. The value of context. Action variable indicates whether an action has to be executed by the chatbot and what action or not. Depending on the Action variable value, the switch case node will route to perform one or two steps from within step 4 to step 8. Answer directly to the Slack user. Retrieve resource usage value from IBM i by querying Db2 for i services. Generate a temporary password and an authentication code, and send text. Retrieve the user profile parameters from IBM i by querying Db2 for i services and determine the possible cause of the connection issue. After performing steps 5, 7 or 8, the result is sent to Watson Assistant to transcript in a natural language sentence. Link nodes a, b allow to make a connection back to the beginning of the flows from a to b , without overwriting the flow representation. Link nodes allow to set up a mechanism like the symbolic links of UNIX file systems. You must now configure nodes corresponding to cloud external services previously created. Figure 21 shows the nodes to be configured. Understanding a conversation " section of this article. Slack Two Slack nodes must be configured: Slack bot in and Slack bot out, and they both have the same name: Double-click each node Figure 21, 2 , and enter the bot API token captured in the " Slack " section of this article. Twilio To configure the Twilio node refer Figure 21, 3a , double-click it, and select the External service value for the Service field. You should have captured those values in the " Twilio "

section of this article. Remember to replace xxxxxx with this phone number in the code see Figure Twilio function node View image at full size Note: Maybe, for security reasons, you will have to reconfigure the Db2 for i nodes to declare the credentials of a specific user profile to be used for Db2 connections. Click Deploy to deploy and make your application live. A message, Successfully deployed, appears at the top of the window. You can now test the chatbot. Test chatbot Go back to the Slack window, and see that the virtual user is now connected as shown in Figure Slack bot connected This chatbot was trained to answer the following four user intents: For example, refer Figure 26 Figure Query resource usage "Change lost password". For example, refer Figure Solve connection issue password related "Solve a connection issue". Solve connection issue password related View image at full size These are just examples of resolving password-related issues. Remember that the quality of chatbot is mainly related to the quality of the Watson Assistant training. And, as you could see in the " Watson Assistant: Import a conversation " section, the current training number of sample sentences by intent is not sufficient. You can add more sample sentences to train Watson Assistant better. So, now, it is your turn. Switch back to the Slack interface. Click the iBot app on the left pane, and enter your questions. Conclusion In this article, you could see that it is quite easy to create a chatbot to automatically support simple ticket resolution tasks. This easiness is due to three main factors: So, next, what will you request to your chatbot to do? Solve printer issues, the second source of tickets in IT help desk organizations? There are so many ideas and their implementations are now possible on your IBM i.

## Chapter 2 : mIRC: Download mIRC

*mIRC is a popular Internet Relay Chat client used by individuals and organizations to communicate, share, play and work with each other on IRC networks around the world. Serving the Internet community for over two decades, mIRC has evolved into a powerful, reliable and fun piece of technology.*

Jarkko intended to extend the BBS software he administered, to allow news in the Usenet style, real time discussions and similar BBS features. The first part he implemented was the chat part, which he did with borrowed parts written by his friends Jyrki Kuoppala and Jukka Pihl. The first IRC network was running on a single server named tolsun. This was the first "irc network". Jarkko got some friends at the Helsinki University and Tampere University to start running IRC servers when his number of users increased and other universities soon followed. They had their own IRC network running and wanted to connect to the Finnish network. IRC then grew larger and got used on the entire Finnish national network "Funet" and then connected to Nordunet, the Scandinavian branch of the Internet. In November, IRC had spread across the Internet and in the middle of, there were some 40 servers worldwide. The "A-net" Anarchy net included a server named eris. It was all open, required no passwords and had no limit on the number of connects. As Greg "wumpus" Lindahl explains: History showed most servers and users went with EFnet. October it forked off the EFnet ircd version 2. It was meant to be just a test network to develop bots on but it quickly grew to a network "for friends and their friends". In Europe and Canada a separate new network was being worked on and in December the French servers connected to the Canadian ones, and by the end of the month, the French and Canadian network was connected to the US one, forming the network that later came to be called "The Undernet". For the latter purpose, the Undernet implemented timestamps, new routing and offered the CService a program that allowed users to register channels and then attempted to protect them from troublemakers. On August 15, the new user count record was set to 57 users. In fact, software implementation varied significantly from one network to the other, each network implementing their own policies and standards in their own code bases. The new network was called DALnet named after its founder: One of the more significant changes in DALnet was use of longer nicknames the original ircd limit being 9 letters. Lined nicknames nicknames that cannot be used i. Lines ban of one person or an entire domain from a server or the entire network, IRCop only communications: Most notably, the "european" most of those servers were in Europe side that later named itself IRCnet argued for nick and channel delays where the EFnet side argued for timestamps. EFnet has since as of August grown and passed the number of users it had then. Certain networks like Freenode have not followed the overall trend and have more than quadrupled in size during the same period. Shown are two IRC channels and a private conversation with the software author. Most IRC servers do not require users to register an account but a nick nickname is required before being connected. The protocol specified that characters were 8-bit but did not specify the character encoding the text was supposed to use. All client-to-server IRC protocols in use today are descended from the protocol implemented in the irc2. Since RFC was published, the new features in the irc2. Virtually no clients and very few servers rely strictly on the above RFCs as a reference. The standard structure of a network of IRC servers is a tree. This architecture has a number of problems. A misbehaving or malicious server can cause major damage to the network [28] and any changes in structure, whether intentional or a result of conditions on the underlying network, require a net-split and net-join. Adding a server to a large network means a large background bandwidth load on the network and a large memory load on the server. Once established however, each message to multiple recipients is delivered in a fashion similar to multicast, meaning each message travels a network link exactly once. IRC can thus be used to facilitate communication between people within the local area network internal communication. Clients send single-line messages to the server, [33] receive replies to those messages [34] and receive copies of some messages sent by other clients. Depending on the command, these may either be handled entirely by the client, or generally for commands the client does not recognize passed directly to the server, possibly with some modification. Messages sent to the joined channels are then relayed to all other users. Some but not all channel modes take parameters and some channel modes apply to a user on a channel or add or remove a mask

e. In order to correctly parse incoming mode messages and track channel state the client must know which mode is of which type and for the modes that apply to a user on a channel which symbol goes with which letter. In early implementations of IRC this had to be hard-coded in the client but there is now a de facto standard extension to the protocol called ISUPPORT that sends this information to the client at connect time using numeric Workarounds for this are possible on both the client and server side but none are widely implemented.

## Chapter 3 : Build an enhanced IT help desk chatbot on IBM i with Watson Assistant

*[Internet Relay Chat] - IRC provides a way of communicating in real time with people from all over the world. It consists of various separate networks (or "nets") of IRC servers, machines that allow users to connect to IRC.*

It is a text-based chat system where clients connect to one or more servers http: Communication is done in channels which individual users join, and users are identified by nicks nicknames. In addition to human users, various services and bots robots -- programs such as "firebot" are present in many channels. You need no formal invitation to join, and all are welcome. It is useful to have a basic understanding of how IRC works as you get started working on Mozilla projects. Beginning in Firefox 3. Other choices include the popular ChatZilla extension for Firefox. Others prefer to use clients such as XChat , irssi , or Colloquy. The remainder of this document assumes the use of ChatZilla. How to Connect to moznet using ChatZilla When ChatZilla first opens, it will present you with a list of possible networks to join--hyperlinks at the bottom of the screen. Click the link for moznet to connect. Choosing a nickname Users are identified by a unique nick i. Often this is something short and in lowercase. Most people use their name or some portion thereof, but you can choose anything. Channels, joining and leaving Channels similar to the concept of a "chat room" usually start with the symbol, for example education. To join a channel type: This can be useful for times when you want to chat with a few specific people at once. They disappear when everyone leaves NOTE: Due to IRC spam and spambots, many channels require that you are a registered user i. You can find instructions for registering your nick here. The reverse is also true: Channel Culture It is normal to join a channel and say nothing. In fact, it is expected. It is normal for someone new to join a public channel i. It is normal to join a channel and sit there idle for a long time. You might never say anything. This is a good way for you to learn about who is in the channel, what they are talking about, etc. Listening is often more important than talking, because you learn more. If you have a question you should just ask it rather than saying, "Can I ask a question about Rather, you should ask the channel in general. Someone will usually answer you: Generally you should avoid small-talk unless you are sure that it is appropriate. At the same time, be ready for a playful and sarcastic environment. One of the cultural norms on IRC is that you spend time looking for answers yourself before you ask questions. Asking questions in the right place is also important. We said earlier that people join multiple channels at once, since each one has a different focus. Channels also have higher or lower tolerance for questions from beginners. Places like education, extdev, xulrunner, hg, etc. When in doubt, ask in education and learn where to go next for help. It is not uncommon for you to ask a question, and for others to continue talking without answering you. Having multiple simultaneous conversations going on is normal, and sometimes it takes time before your question gets the attention of the right person. The people in channels Channels have operators, or ops. These are people who have special administrative powers to kick people out or otherwise run IRC server commands. You can often spot them in your client for example, in ChatZilla they will appear with a Green Circle, and in irssi they will have an symbol before their nick. Many people will appear to be in the channel, but not all of them will actually be watching IRC at that moment. It is normal for people to leave their IRC clients connected all the time and never leave. This way they can catch-up on conversations they missed while they were away. Because of this, people will often check to see if someone is really there before talking to them. This is helpful when there are a lot of people talking at once in a channel. ChatZilla automatically remembers all text that was directed to your nick so you can scan it later. You can see it in the moznet tab. It is normal to join conversations in the middle without being invited within reason and assuming you have something useful to say. Tools for collaboration The best way to share long sections of text with other IRC users is not to paste it into the channel. For any text longer than a few lines 9 being the maximum, but more than 3 is probably too much , for example build output, source code, error messages, configuration text files, etc. Instead, you should use one of the following methods: Using private chats with individual user s Use a temporary channel. You could ask two or three people to join you in a channel name of your choosing, then paste your text there: These are websites that allow users to temporarily host large quantities of text, and assign them unique URLs. Mozilla hosts its own pastebin, which is publicly accessible

at http: You use simply paste your text into the textbox, and optionally select any syntax highlighting you desire. Finally, click the Send button. Copy the URL from the address bar, which will look something like this: By default such URLs will exist for 1 month, but you can manually override this prior to clicking Send. Because some users work with command-line clients, it can be difficult to copy-and-paste these URLs into the browser. A better solution is to use TinyURL. A typical TinyURL, looks like this:

## Chapter 4 : Internet Relay Chat Help

*This page is a placeholder for a future tutorial on Internet Relay Chat. RFC Internet Relay Chat; mIRC - An IRC client.*

Shaping and growing and ungrowing. It is there yet not there. It is the source of Internet Relay Chat. If the Tao is great, then the IRC is running ceaselessly. If the IRC is great then the server is running without ever stopping. If the server is great then the client will always be the server. The luser is then pleased and there is Chat in the world. The Tao of IRC squits far away and connects on returning. In the beginning there was nothing. Out of nothing the Tao gave birth to tolsun. OuluBox gave birth to rmsg. No one knows when IRC came into existence, the mighty master WiZ have it to be at the end of the eight month in the year of the Dragon. In the beginning there was only channel 0, thus channel 0 is the soil of IRC. Channel 1 to channel 10 then was open as the sea. Channel 11 to was the trees and forests of IRC. Channels above should not be mentioned, and channels below 0 were unborn and contained many secrets. This was not the right Tao still, so IRC gave birth to channels. Only channel 0 is the right path to Tao, but avoid speaking on channel 0. Some of them wanted neither yin nor yang. Out of this Eris came into existence. Some of the Broom-Walkers then created Eris Free-net. This was the right Tao. Some time later there was a quantity of some lusers who wanted to be Broom-Walkers also. This IRC is called the Undernet. But this is not the right Tao, either. This is the very nature of the IRC. Lusers that do understand the Tao are always using Ignore on their channels. How could this not be so? The luser is told about the IRC and is looking for it. The flock are told about the Tao and make a fool of the IRC. If there was no laughter, there would be no Tao. We can neither imagine its thoughts nor path; we are left but to describe. When he awoke he exclaimed: The master Nap then said: Any automata shall only whisper when spoken to. They where not following the Tao. Each day he saw the automatons. The luser decided that he also would have such a automata. He asked another luser for his automata. The other luser gave his automata away. The luser was not within the Tao, so he just started the automata. The automata had only Yang inside so all the lusers files where deleted. Some moons laither the same luser then had become a sage luser, and did create his automata from the very grounds with materials found inside the IRC. The luser was now within the Tao and his automata lived happily ever after. A novice luser, seeking to imitate him, began with the help of master Phone. When the novice luser asked the master to evaluate his automata the master replied: Master Troy gave birth to master Phone, for the Tao of Irc must be eternal and must flow as the ceaseless river of Time itself. The sage luser asked the master who wrote automata: A automata with the help of master Phone or an automata made with the help of a language? Is not that the easiet way? For sure, it is a great box for the lusers, but the master will need more power, thus a language is the only path to go. With the language the master will never have to limit himself. When using such a language the master will seek the best between the need and the availability. This is the essence of Tao of IRC automatats. The spirit of a good client is that it should be very convinient for the luser to use, but hard for the luser who want to create automata. There should never ever be too many functions or too few functions. There should always be a ignore. Without ignore the client is not within the Tao of Chating. The client should always respond the luser with messages that will not astonish him too much. If the server does not, then it is the clients job to explain what the server says. A client which fails this, will be useless and cause confusion for the lusers. The only way to correct this is to use another client or to write a new one. The luser then wondered why the master knew. The master then told him about the Protocol. Why should it always work? Only a fool would expect such. But, clients are made by humans, and humans are not perfect. The masters then said that the Tao of IRC always lies inside the client regardless of how the client connects to the server. The master then was quiet for a long time and said. Without the client, the server is useless. To hide ones self is not Tao, and is not IRC, you have much to learn before you shall be at rest within the Flow of Irc. Please leave" Ove Ruben R Olsen.

## Chapter 5 : Internet Relay Chat - Simple English Wikipedia, the free encyclopedia

*Learn more about our exclusive Priority Care Program. You'll have access to our in-house Technical Support team of*

*certified technology professionals trained to assist you on a variety of PC and Mac related support issues.*

### Chapter 6 : calendrierdelascience.com - Home of IRC

*Learn Internet Relay Chat (Learn Series) [Kathryn Toyer] on calendrierdelascience.com \*FREE\* shipping on qualifying offers. The author explains in great detail the software and commands of IRC and the appropriate procedures for using IRC effectively.*

### Chapter 7 : How to Get Started with IRC (Internet Relay Chat) (with Pictures)

*Realtime chat has been a cornerstone of online life since before the invention of the World Wide Web. MUDs (and MUSHes and MUCKs), BBSes, and the talk command allowed real- (or near real-) time chat as early as*

### Chapter 8 : #Beginner Website, Undernet -

*IRC (Internet Relay Chat) is an Internet protocol which allows people to communicate with each other in real time in a text based environment, see Wikipedia. However, it can be hard to get into and grasp.*

### Chapter 9 : mIRC: Internet Relay Chat client

*Internet Relay Chat. There are several Python-related channels on the Freenode IRC network. All channels are available by on Internet Relay Chat server Freenode. Connect to calendrierdelascience.com or use Freenode's webchat. For short questions, you can get immediate help by visiting the #python channel.*