# Chat Bot



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# Chat Bot: Local and Adaptive Information Assistant

Chat bots have become common place in the everyday life of many. It has grown from a niche gimmick found in MSN messenger to a mature and useful product. Bots are commonly found in Facebooks messenger app, where it is possible to book a hotel room and order a coffee all through normal text communication. We are going to see a continued growth in these personal assistants, especially in the commerce market where they will be used to streamline the purchasing process.

Commerce bot though common, fulfill a limited set of functions. As such they are not very useful in any other scenario, other than purchasing from specific vendors. Other areas of application are currently underserved, either due to lack of interest or monetary incentive. Therefore the goal will be to develop a chat bot which can be used to answer questions about local information, either limited to Gothenburg or to the Lindholmen Campus. Possible questions may include, where to eat, how to travel to a certain location, or where a building can be found.



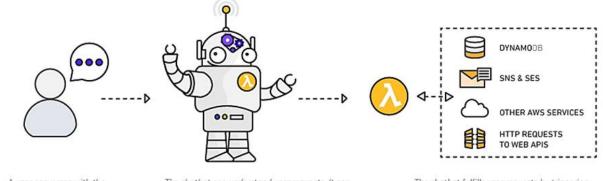
There are a multitude of tools out there to do Natural Language analysis with, where the most common ones are Lex, wit.ai, IBM Watson and Microsoft Bot Framework. One of these tools, or another alternative will be needed to develop the bot. An initial part of the project will be to evaluate the pros and cons of the most common tools and determine which is the best suited for this application. The project will also require development of logic to act on the parsed intents, such as generating responses through connecting to 3<sup>rd</sup> party APIs. There are no requirements on platform or language choice, more than the limitations imposed by the Natural Language tool.



The task will be to develop a cloud based chat bot which can take text or audio input and output a response. Focus will be put on adding the possibility to expand upon the bot, rather than the intents that it supports. Included in the project:

- Simple API to send the input to, requires at maximum two endpoints
- Test client to communicate with the robot
- Logic to respond to parsed intents from the input

• Functionality to give information related to the Lindholmen Campus area



Possible stream flow in AWS – LEX:

A user converses with the chatbot to request information. The chatbot can understand user requests. It can reply with answers, perform actions, ask for more inputs, or respond with error-handling prompts. The chatbot fulfills user requests by triggering AWS Lambda. Lambda retrieves the requested information or performs other types of actions.

**Sounds interesting? Do you want to tweak the scope with your own ideas?** Get in touch with us for a discussion!

#### Next Step?

To secure that the project is yours please send a mail or call me (Gabriel Ibanez), I will be willing to share with you further details including booking a first meeting with your project supervisor:



You are most welcome to join us at *Cybercom Lindholmen* (*Lindholmspiren 3A, 417 56 Göteborg*) on Monday the 23<sup>th</sup> October at 17:00. We will show you then how we work, run a demo of our current ongoing-projects and let you meet the rest of the Innovation Zone's team so that you can feel at home from day one.

There will be pizza and opportunity to meet your project supervisor to discuss further about your project. Welcome!



# Short about this document and Innovation at Cybercom

In the several PDFs with ideas presented by Cybercom you will find several possibilities for thesis and practice at Cybercom Göteborg.

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The collection of ideas that we present to you intend to reflect that diversity, we at Cybercom hope that you can find them inspiring. May your idea for project not be among our proposals? Let us hear about it, we will always welcome your own ideas and proactivity.

More about Cybercom: <u>https://www.youtube.com/watch?v=IRQxzbB5gsE&feature=youtu.be</u> Innovation Zone's blog:

https://www.cybercom.com/innovation-zone/blogs-innovation-zone/innovation-zone-blog/



## A sample of theses and practices that were supported by Cybercom

Below you can find some examples of thesis and practice handled at Cybercom in the past few years, they might be inspiring. Follow the QR codes to read further details about the them.

