

Welcome alexa, your personal assistant

Speaker Johan Janssen

@johanjanssen42

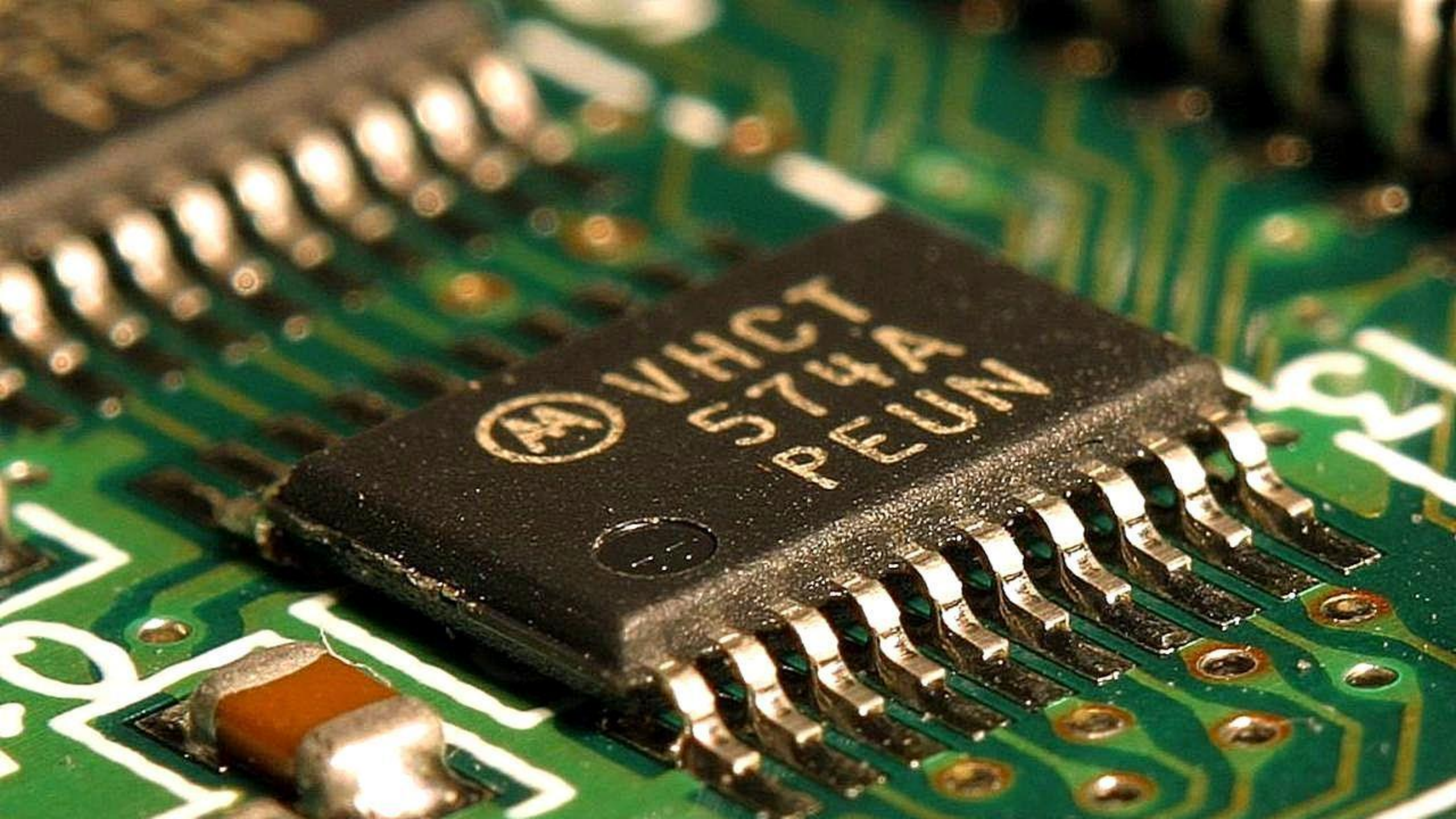




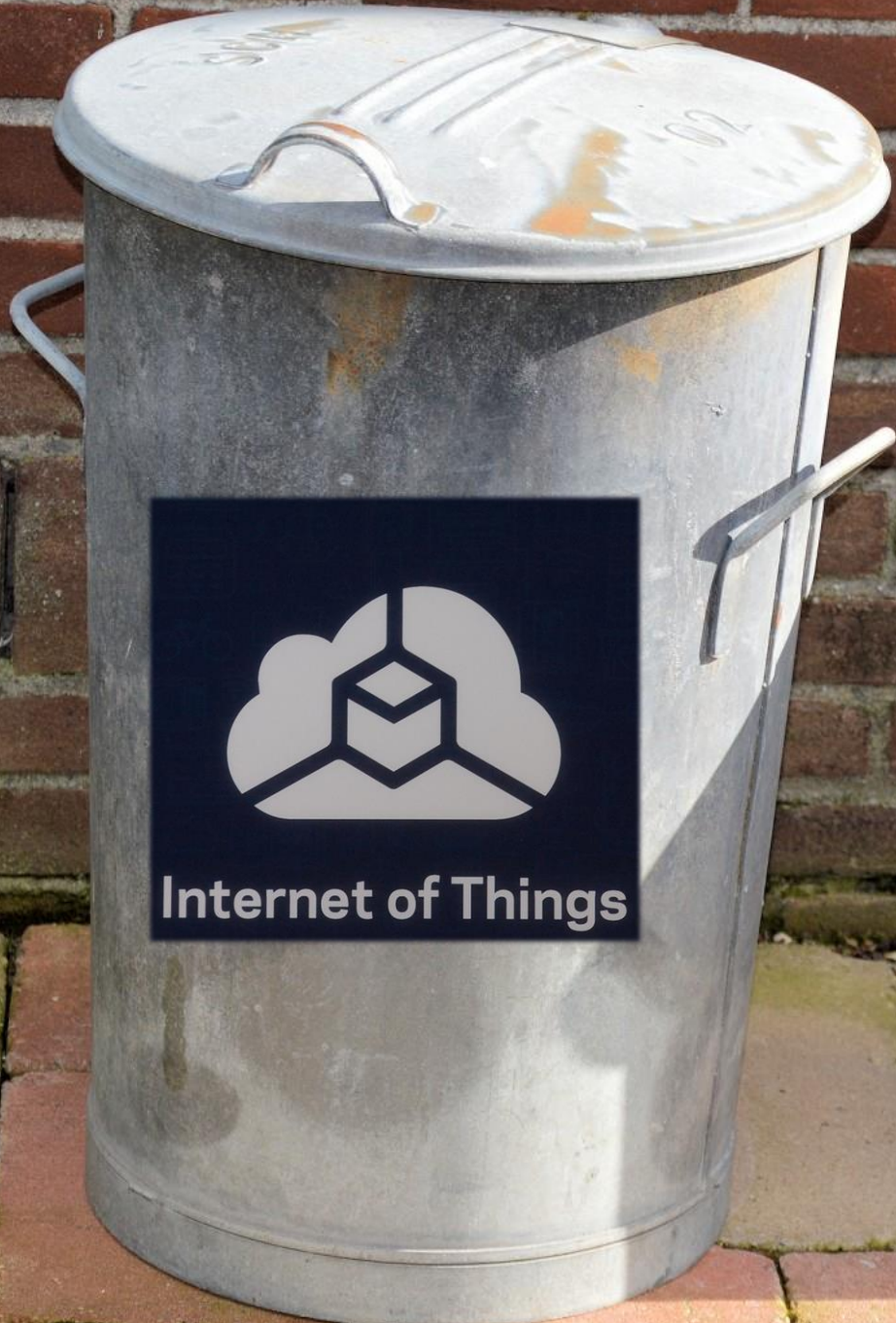
CONTENT

- Internet of Things
- Home automation
- Alexa
- openHAB
- Alexa skills
- Conclusion
- Questions

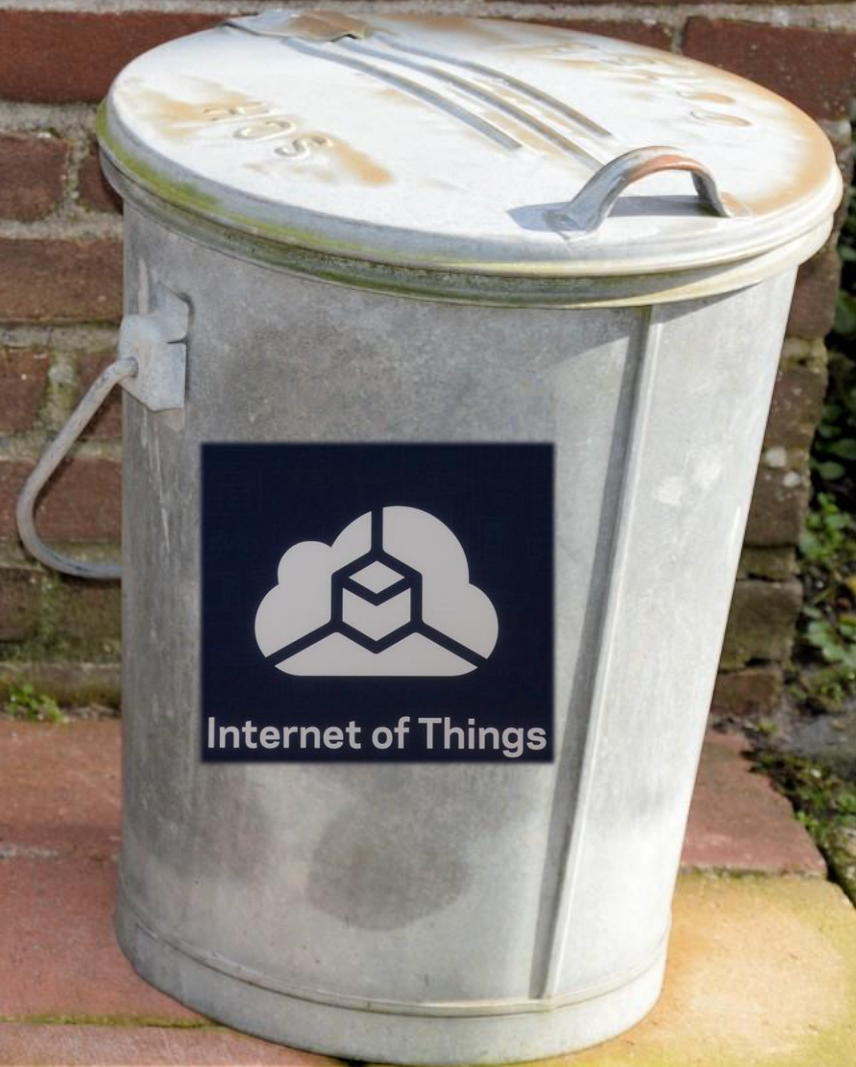
What's The Internet of Things (IoT)







Internet of Things



Internet of Things

“The Infrastructure of the Information Society”

Global Standards Initiative on Internet of Things (IoT-GSI)



What's home automation?





What other things do we want to control?



DEMO TIME!



“Home automation is a subset of IoT”

Johan



Home automation challenges

















DEMO TIME!



RASPBERRY PI

Official guide from Amazon

<https://github.com/amzn/alexa-avs-raspberry-pi>

COMPARISON

RASPBERRY PI

- Around \$80-\$90
- Raspberry Pi 3
- Speaker
- Microphone
- Power adapter
- Cables

ECHO DOT 2

- \$50
- Adapter
- Dual band wifi
- Stereo (weak)
- Wake on speaking









Alexa for home automation



DEMO TIME!

OPENHAB





Woonkamer

Gezellig

X



Thermostaat

Werkweek

Uit

Werk

Aan



Onkyo Volume

-

0

5

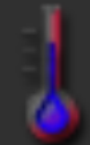
7

9

13

20

30



Thermostaat woonkamer

20.10 °C



Ledstrip woonkamer



Verwarming slaapkamers





if this then that



If You say "Alexa trigger switchoff", then send a command



If You say "Alexa trigger switchon", then send a command



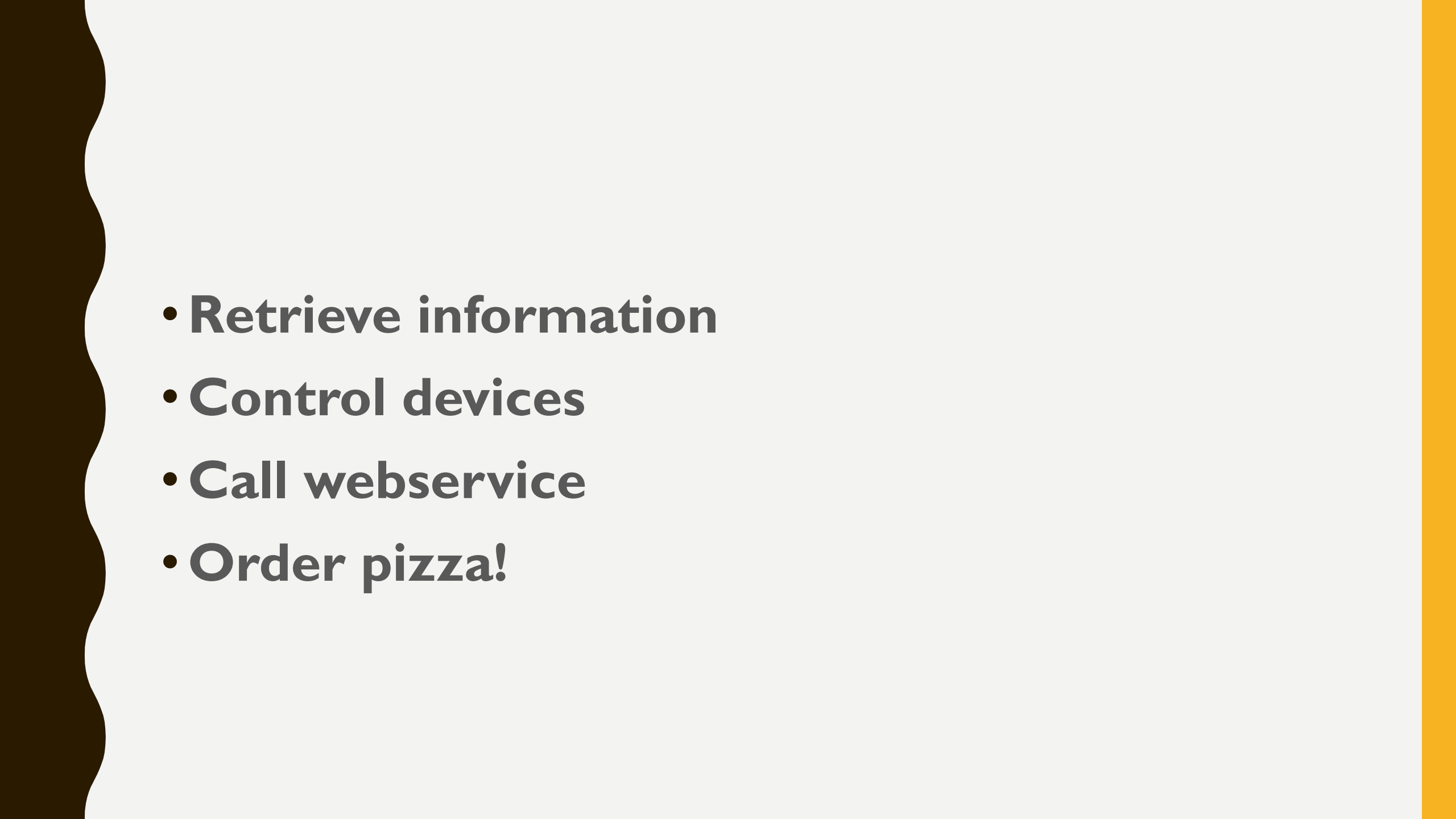
my



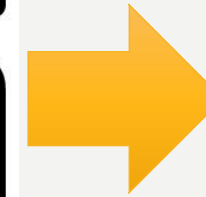
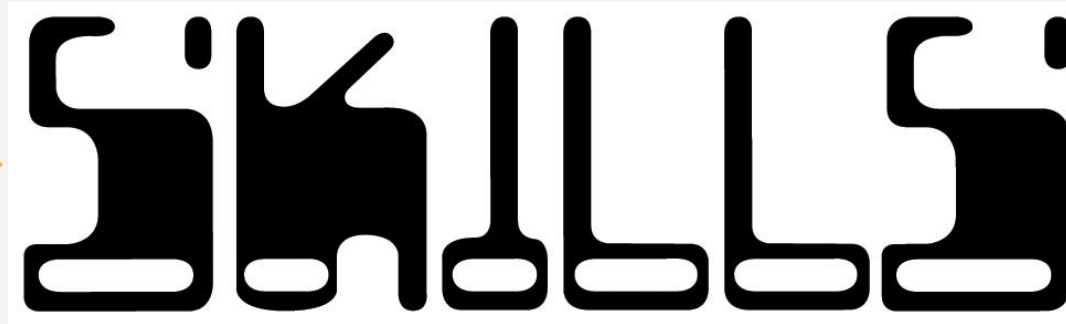


DEMO TIME!

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- 
- **Retrieve information**
 - **Control devices**
 - **Call webservice**
 - **Order pizza!**

ALEXA-HA SKILL



TALK TO ALEXA

Alexa ask/tell

firstSkill

hello

invocation name

utterance

/ sample

MAP UTTERANCE TO INTENT

MyFirstIntent

Intent

hello

utterance

DEPLOYING/RUNNING SKILLS

- **AWS Lambda**
 - Java
 - Node.js
 - Python
 - ...
- **(Local) webservice**

USING A CUSTOM SKILL



NORMAL AWS LAMBDA DEPLOYMENT





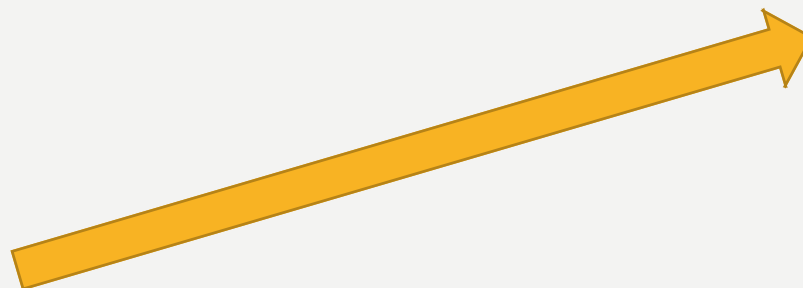
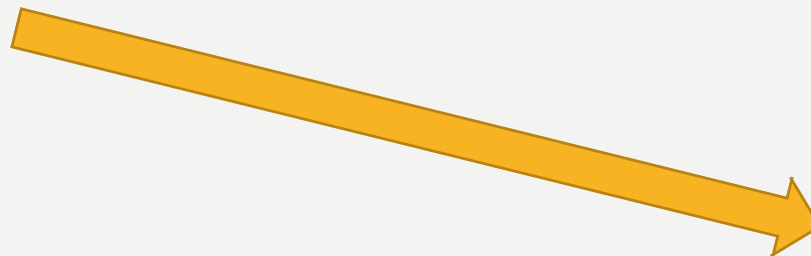
DEMO TIME!

MY SKILL





MY SKILL



ACCESS CONTROL

```
private static Skill getSkill() {  
    return Skills.standard()  
        .addRequestHandler(  
            new HelloWorldRequestHandler()  
        ).withSkillId("[enter-the-Skill-Id]")  
        .build();  
}
```

AWS LAMBDA AUTO DEPLOY

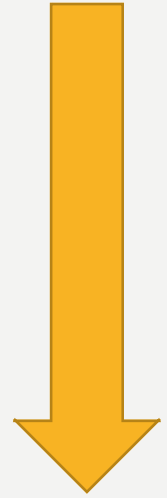
maven



Jenkins



AWS ROLE



amazon
Developer

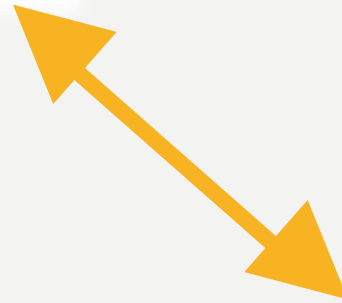




DEMO TIME!

CONNECTING AN EXTERNAL APP







DEMO TIME!

GITHUB REPO'S

- My examples

<https://github.com/johanjanssen/Alexa-ASK-SDK-Examples>

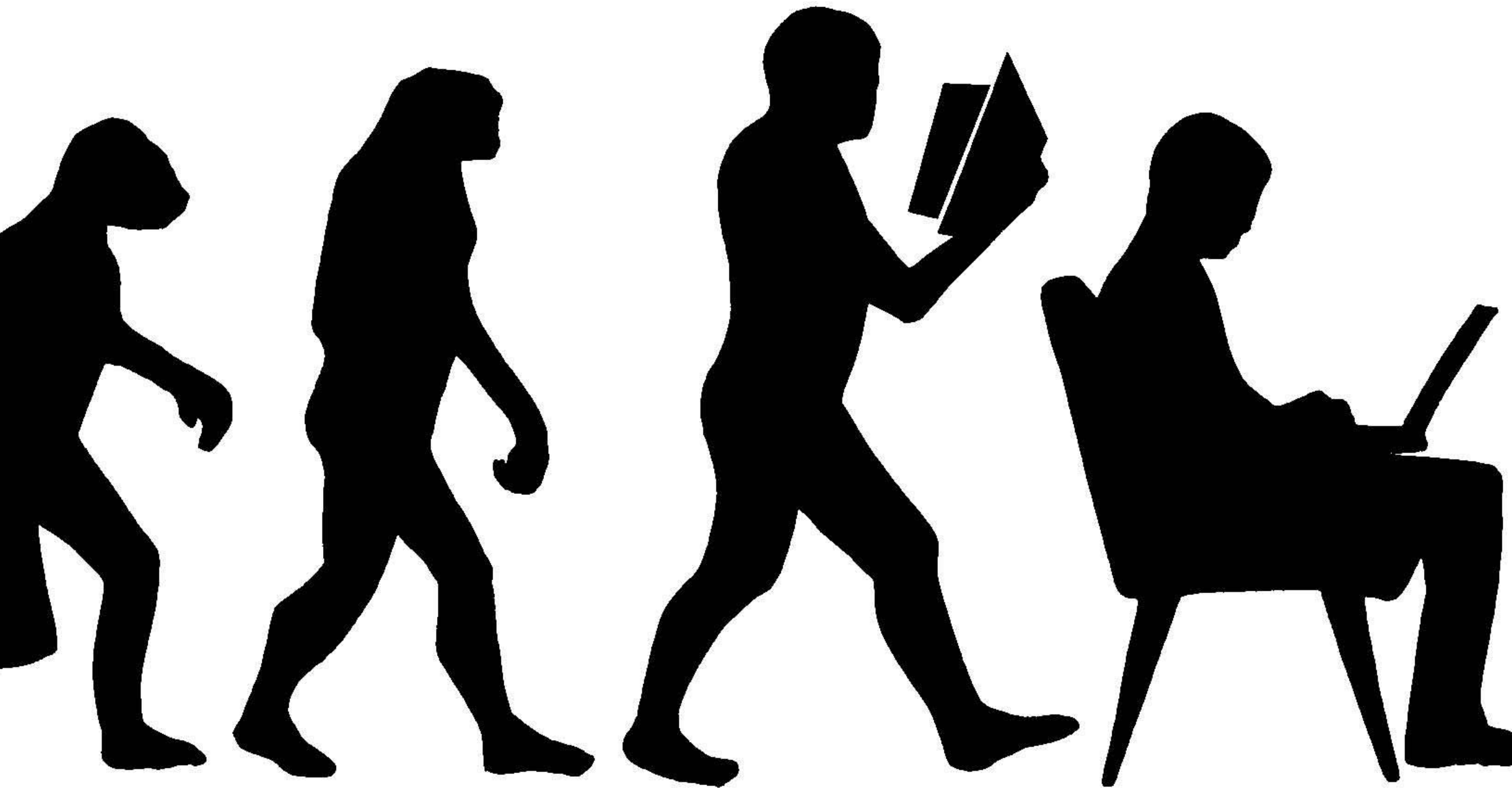
- Alexa Skills Kit Java

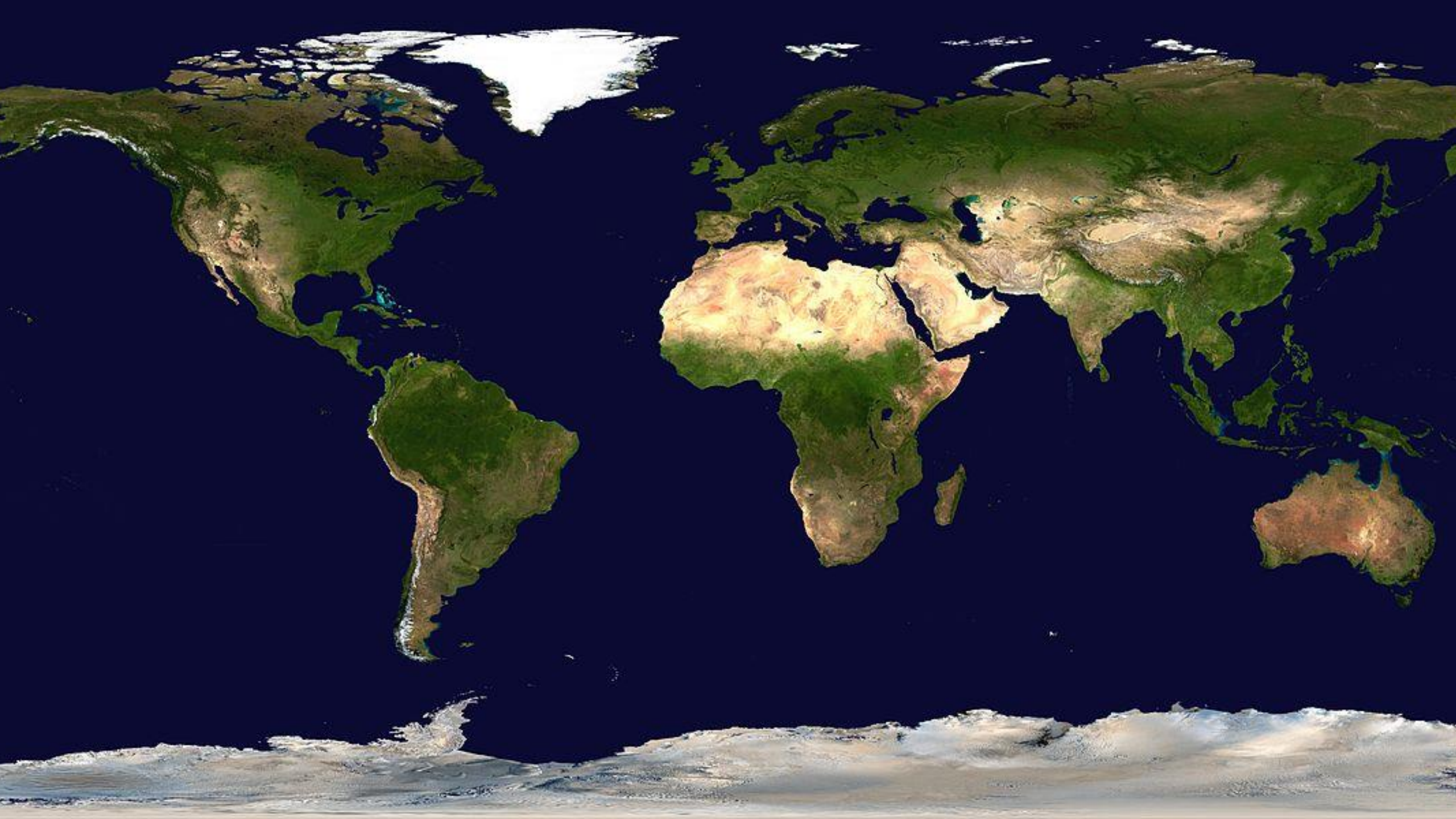
<https://github.com/alexa/alexa-skills-kit-sdk-for-java>

IF YOU WANT A NEW FEATURE

- Use an existing skill
- Integrate with for instance IFTTT
- Create a custom skill

Disadvantages Alexa







DO WE HAVE AN ACCENT?!









NO
TRESPASSING

RALEIGH-DURHAM
AIRPORT
AUTHORITY



Advantages Alexa

NEW!

Cool

POP 2,520

ELEV 1,518

Usefull

Useless





CONCLUSION

- **Easy to integrate with other devices / software**
- **Easy to program new features in Java**
- **You quickly get used to it**
- **Fun!**



Johan Janssen, Info Support



@johanjanssen42



Please

**Remember to
rate this session**

Thank you!

