Język Go w świecie Cloud Computing.

Arkadiusz Galwas, SAP
3 listopada, 2020

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Agenda

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Hack Your Career

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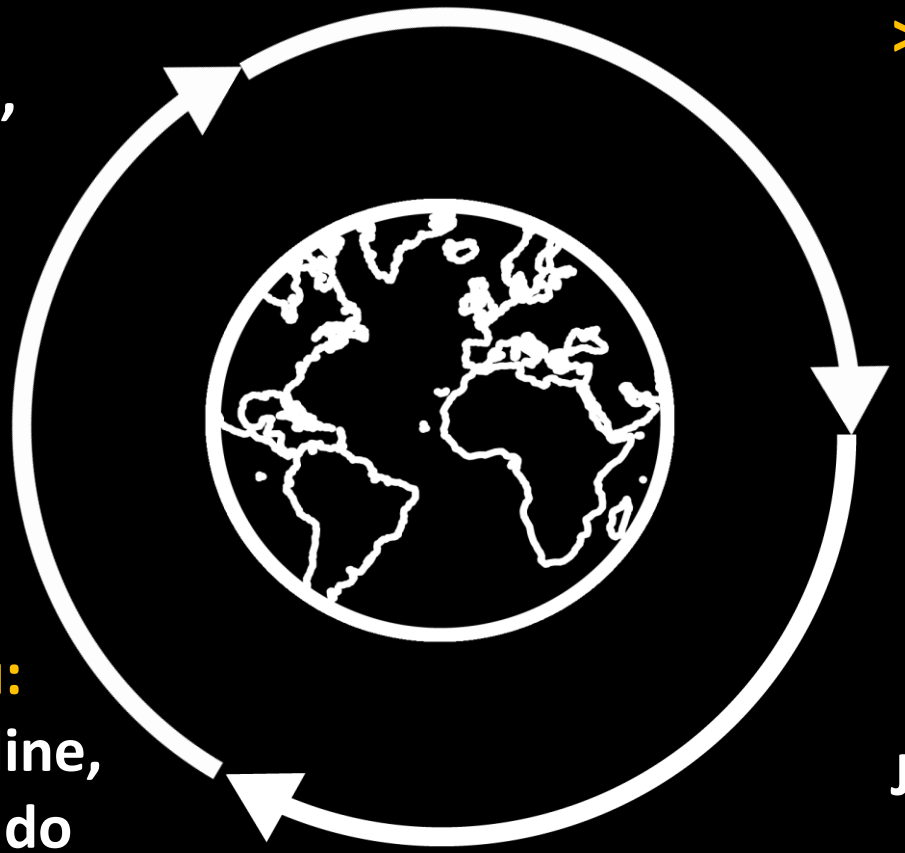
SAP Labs Poland

Różnorodność domen
E-commerce, social commerce, cloud platform, open source,...

Development: Go, Java, Angular, Cloud Native solutions, ...

Możliwość nauki i rozwoju:
Platformy do edukacji on-line, certyfikacje, łatwy dostęp do ekspertów na całym świecie



> 350 pracowników

Różnorodność specjalizacji
Product teams, project teams, innovation projects teams, support teams

Jedno z 21 centrów
SAP's Labs Network

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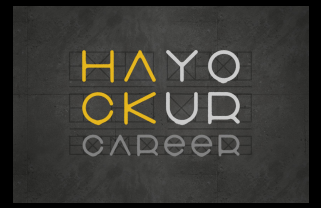

Dla zainteresowanych programowaniem w GO, chmurach i pracą z nami:

- https://jobs.sap.com/job/Gliwice-Cloud-R&D-Developer-at-SAP-Labs-Job-SL/629171801/

(skrót: https://url.sap/t3ksa7)

Aktualne oferty pracy:

- https://jobs.sap.com/search/?locationsearch=gliwice

(skrót: https://url.sap/3vywdy)

Śledź nas na:

- https://hackyourcareer.github.io/
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Arkadiusz Galwas, Senior Software Engineer, SAP Labs Poland.

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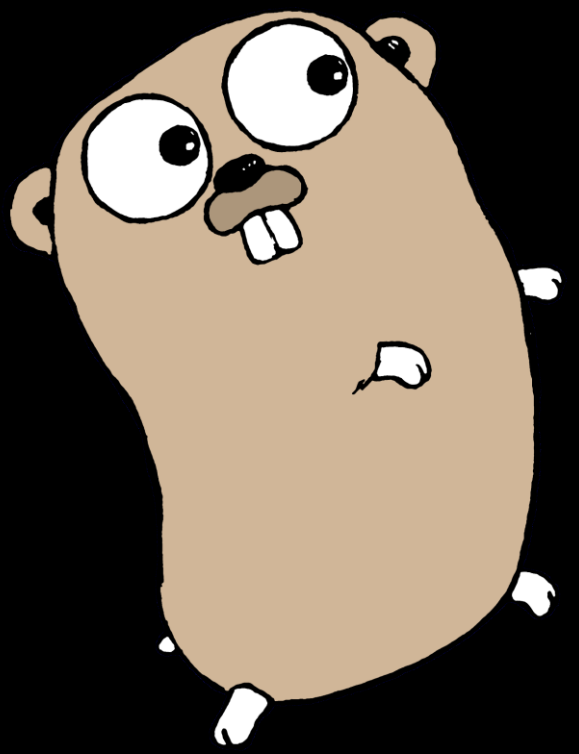
Go in the world of Cloud Computing

1. What is the Cloud?
2. Cloud language requirements.
3. Go features overview.
4. Go in action.
5. Summary.



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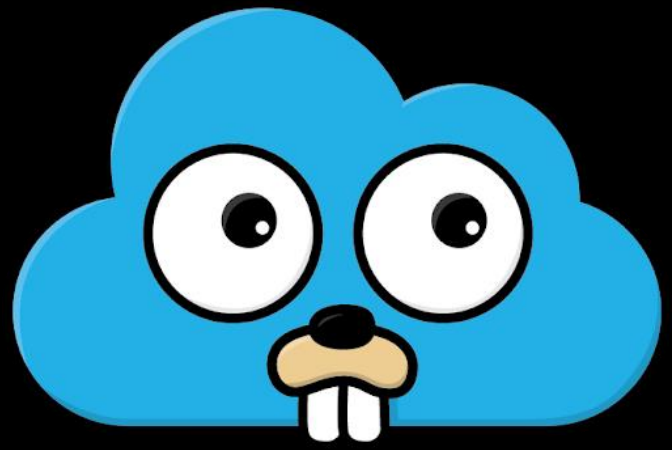

What is the Cloud?

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What is the Cloud?

Cloud computing is the on-demand availability of computer system resources, especially data storage (cloud storage) and computing power, without direct active management by the user.

The term is generally used to describe data centers available to many users over the Internet.

Source: https://en.wikipedia.org/wiki/Cloud_computing

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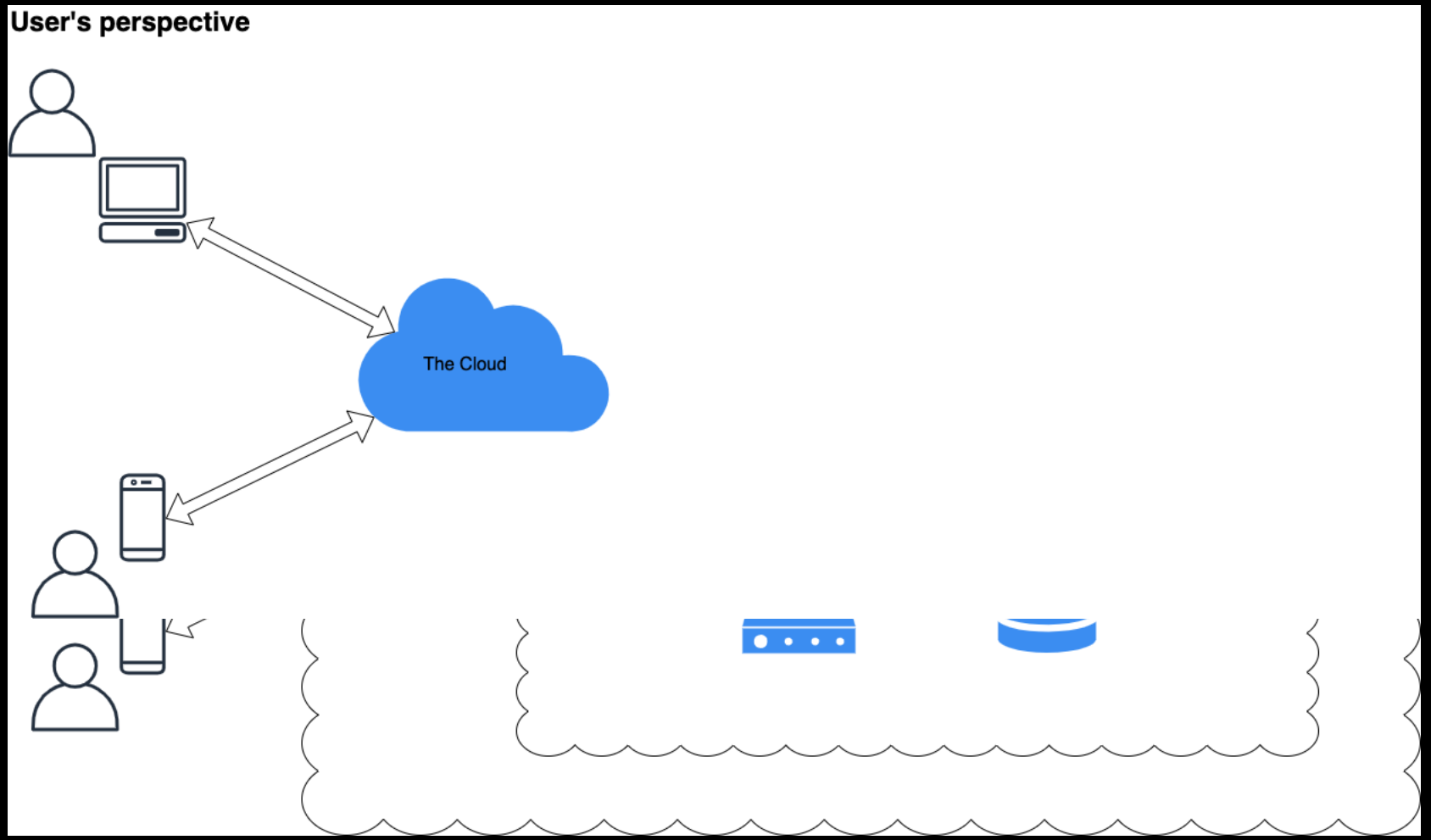
What is the Cloud?



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What is the Cloud?

Benefits of Cloud Computing for software developers:

- Ability to respond to increasing or decreasing computing resources demand.
- Computing resources cost proportional to workload size.
- Lower overall infrastructure maintenance cost.
- Geographical distribution.

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Cloud language requirements

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Which programming language should I use for cloud projects?

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Cloud language requirements.

The most important qualities include:

- Libraries and tools.
- Performance.
- Speed of development.
- Resource utilization.

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Go features overview

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Go features overview: design philosophy

The computing landscape today is almost unrelated to the environment in which the languages being used, mostly C++, Java, and Python, had been created. The problems introduced by multicore processors, networked systems, massive computation clusters, and the web programming model were being worked around rather than addressed head-on.

Rob Pike, Go at Google: Language Design in the Service of Software Engineering

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Go features overview

Go is:

- Statically typed.
- Compiled to native code.
- Multiparadigm (procedural, sort of OOP, elements of FP).
- Easy to learn.

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Go features overview

Go has:

- Automatic memory management.
- Concurrency mechanisms built-in.
- Rich standard library and tooling.
- Large ecosystem of Open Source libraries.

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Go features overview

What Go lacks:

- Classes
- Inheritance
- Generics
- Exceptions handling

No exceptions???

Yep.

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Go features overview

C++, Java, Scala, Rust etc.

Go

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Go in action

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Go in action

1. Basic Go.
2. Concurrency.
3. REST service and Google Cloud Run.
4. Serverless with Google Cloud Functions.

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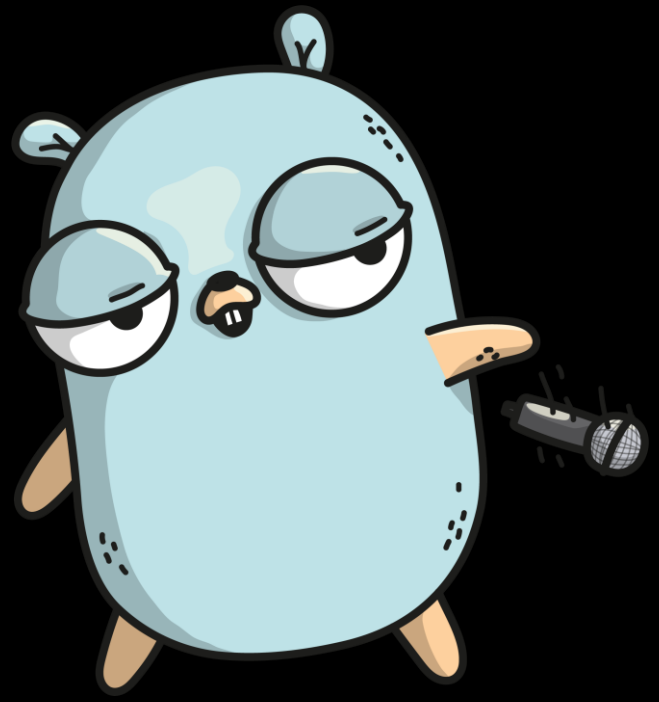
Summary



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Summary

Go has features that make it suitable for the Cloud:

- Good concurrency suport.
- Rich ecosystem: tooling and Open Source libraries.
- Reasonable performance and memory consumption.
- Reasonable speed of development.

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Summary

Go is good for:

- Writing complex Cloud infrastructure projects.
- Writing small command line tools (e.g. for DevOps and Penetration Testers).
- Writing microservices and Serverless Functions.

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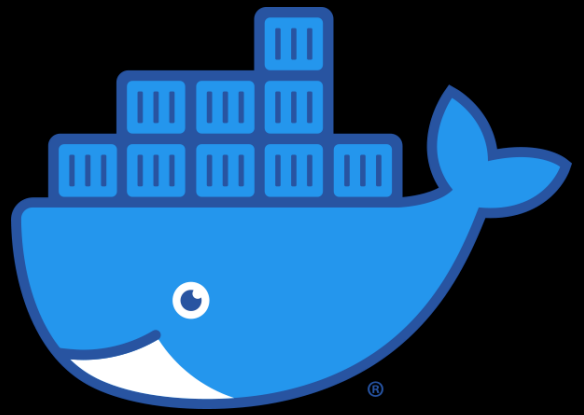
Summary: Go adoption

NATS



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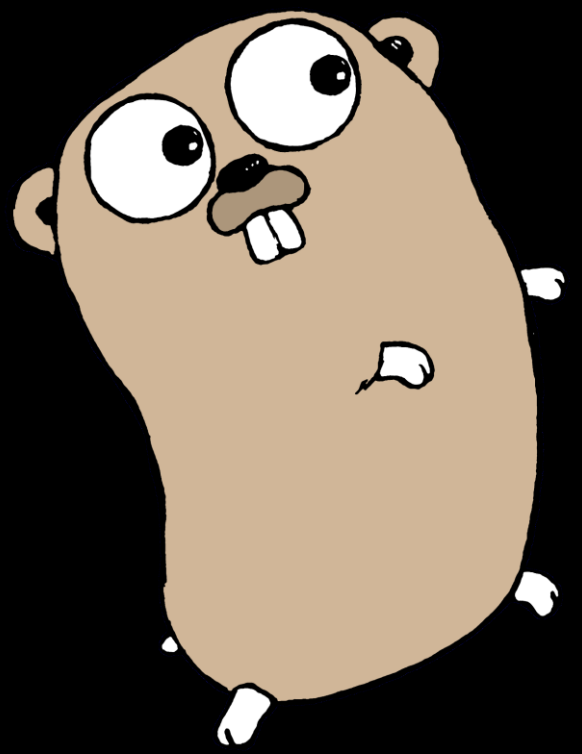
Questions?



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(skrót: https://url.sap/t3ksa7)

Aktualne oferty pracy:

- https://jobs.sap.com/search/?locationsearch=gliwice

(skrót: https://url.sap/3vywdy)

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Thank you.

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