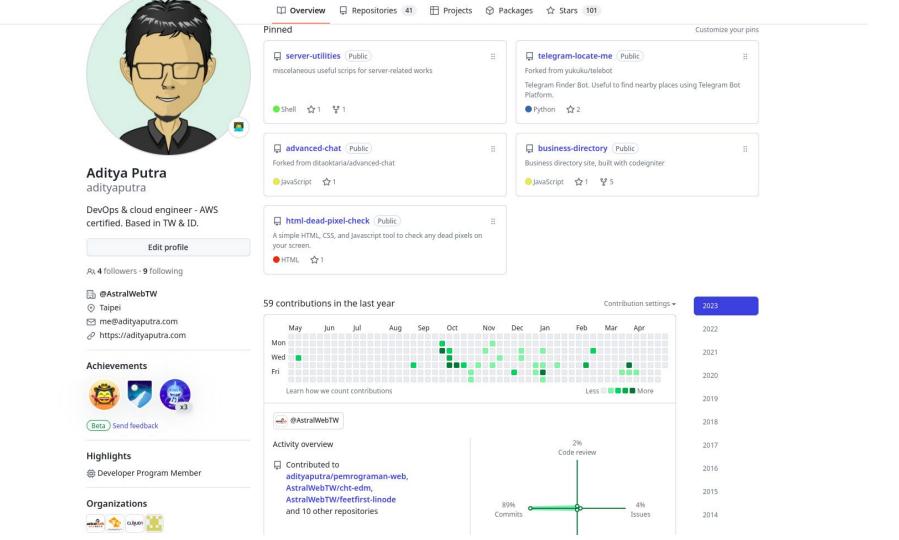
# Cloud Computing

an introduction



#### Praktisi Mengajar

instagram.com/praktisimengajar



# Our plan

4 classes with lecture, demo, and workshop – both online and in-person, 3h each

- Introduction of IT industry, cloud computing, and DevOps
- Containerization technologies
- Public cloud (part 1)
- Public cloud (part 2)

# Our today's discussion

- Introduction about IT industry (and whether it's <u>really</u> related to your study)
- Introduction about cloud computing
- Introduction about DevOps and CI/CD
- Future trends

# Why

do you study computer science?

#### + HELPNETSECURITY

#### 10 IT INDUSTRY TRENDS TO WATCH IN 2022



- 1. The workplace can no longer be easily defined
- 2. Changes in business travel drive innovation
- 3. The impact of regulation goes beyond new laws
- 4. Technology budgets experience stealth growth
- 5. Proactive cybersecurity takes a big step forward
- 6. Channel cybersecurity has a ways to go
- 7. Consulting: Today's channel opportunity
- 8. Chip supply chain woes provide wake-up call
- 9. Software development gets more granular
- 10. Foundational data management drives an analytics revolution

 $\checkmark \checkmark \checkmark \checkmark \uparrow$ 

SOURCE: COMPTIA

## Academia

# Industry

### Opportunities in IT

- Global opportunities
- Evolving rapidly requiring continuous learning
- Not limited to traditional IT engineering jobs
- New fields of work keeps coming
  - Cloud
  - Al
  - Automation
  - Data science / analytics
  - Academics work

#### Getting started and advancing in IT career

- Self-paced learning, and keep learning
  - o Invest time in learning even when you're working
- Allocate time for life, work, and study
- Learn from experts
- Join communities
- Start building your CV right NOW
- Start working / freelancing, when possible
- Don't be afraid of black and white consoles. Terminal is your friend.
- English is a must
- Enjoy the process, don't worry about the pay!

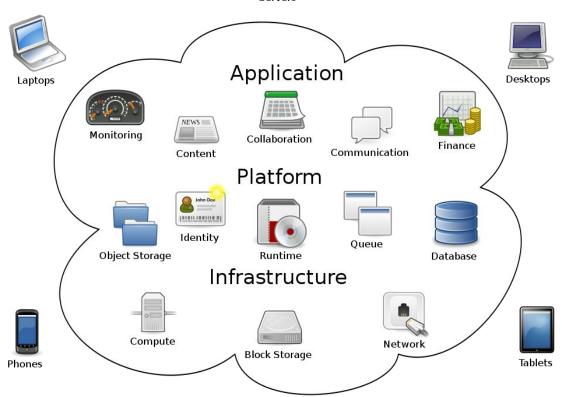
# What do you think about cloud computing?

#### Cloud computing is . . .

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







**On-Premises** 

Infrastructure as a Service

Platform as a Service

Software as a Service

Applications

ns Applications
Data

Applications

Applications

Data

Runtime

Data

Runtime

Data Runtime

Middleware

Runtime

Middleware

Middleware

Middleware O/S

O/S

Virtualization

Virtualization

O/S

Virtualization

O/S

Virtualization

Servers

Servers

Servers

Servers

Storage

Storage

Storage

Networking

Storage Networking

Networking

Networking

You Manage

Other Manages

#### laaS vs. PaaS vs. SaaS Examples







#### Characteristics of cloud

**Agility** 

Elasticity

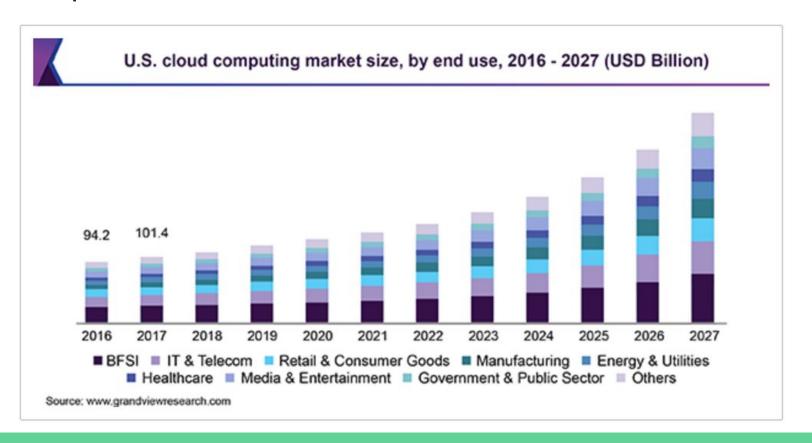
Cost savings

Deploy globally in minutes

#### Use cases of cloud

- laaS and PaaS
- SaaS
- Hybrid cloud and multi-cloud
- Test and development
- Big data analytics
- Cloud storage
- Disaster recovery and data backup
- Highly available application deployment

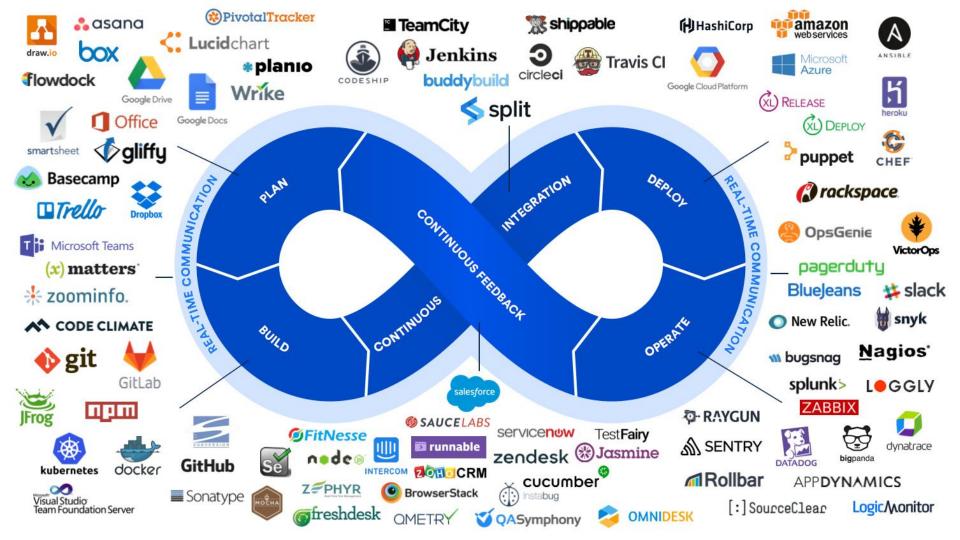
#### Cloud potentials



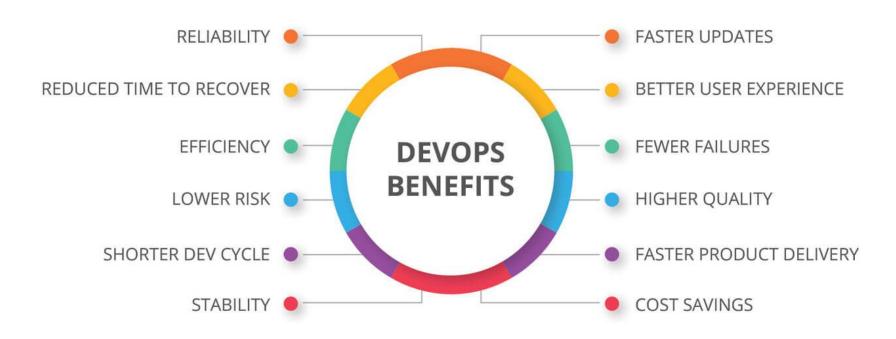
#### **Average cloud computing career salaries**



# **DevOps**culture in companies



### Benefits of DevOps and CI/CD

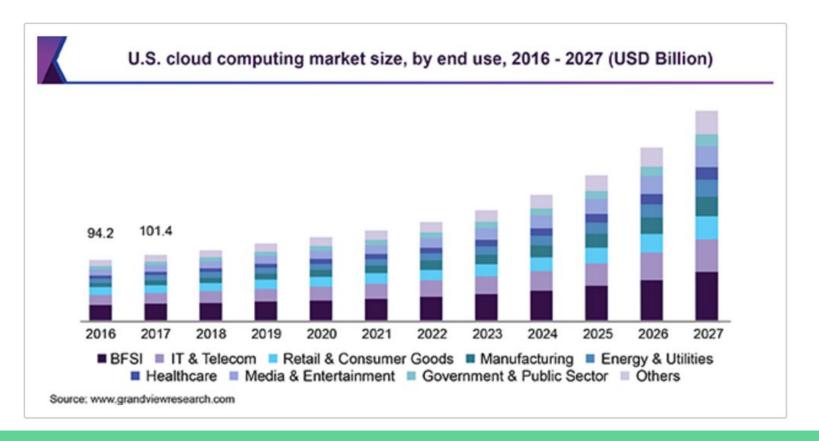


# Future trends

# Artificial intelligence



#### Cloud computing & automation



# Cloud will keep growing and flowing

### Thank you

me@adityaputra.com

