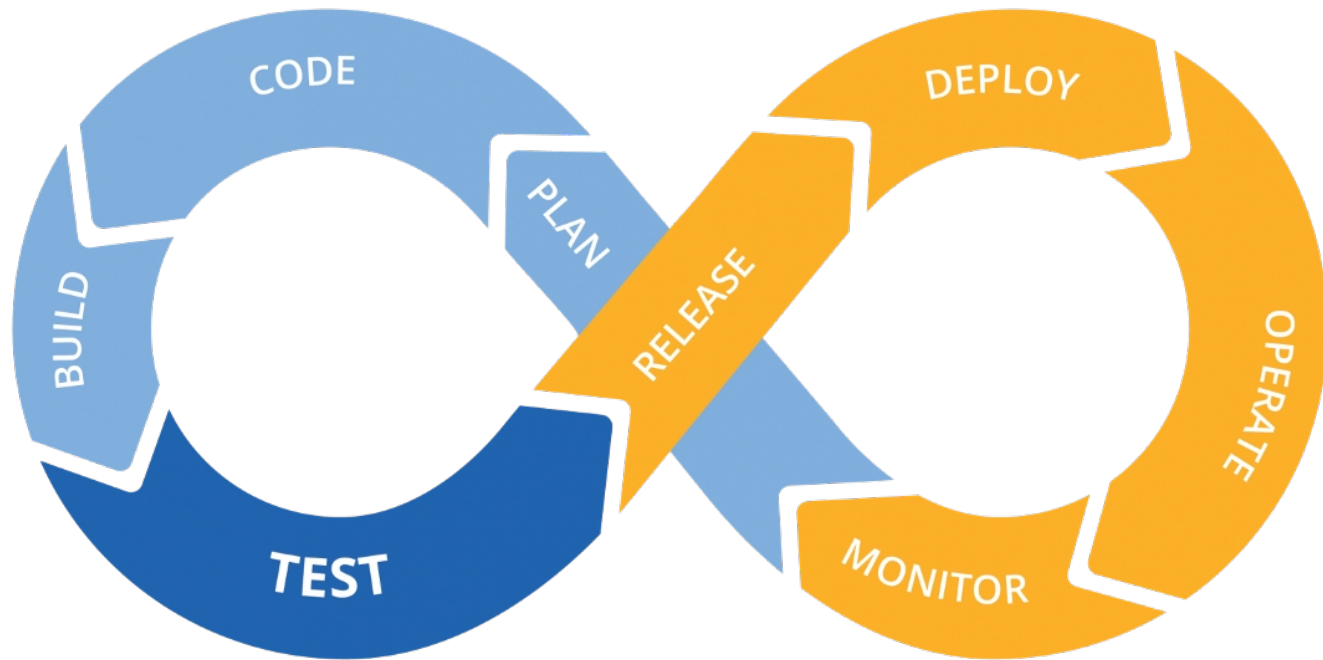




# Реализация CI/CD процессов

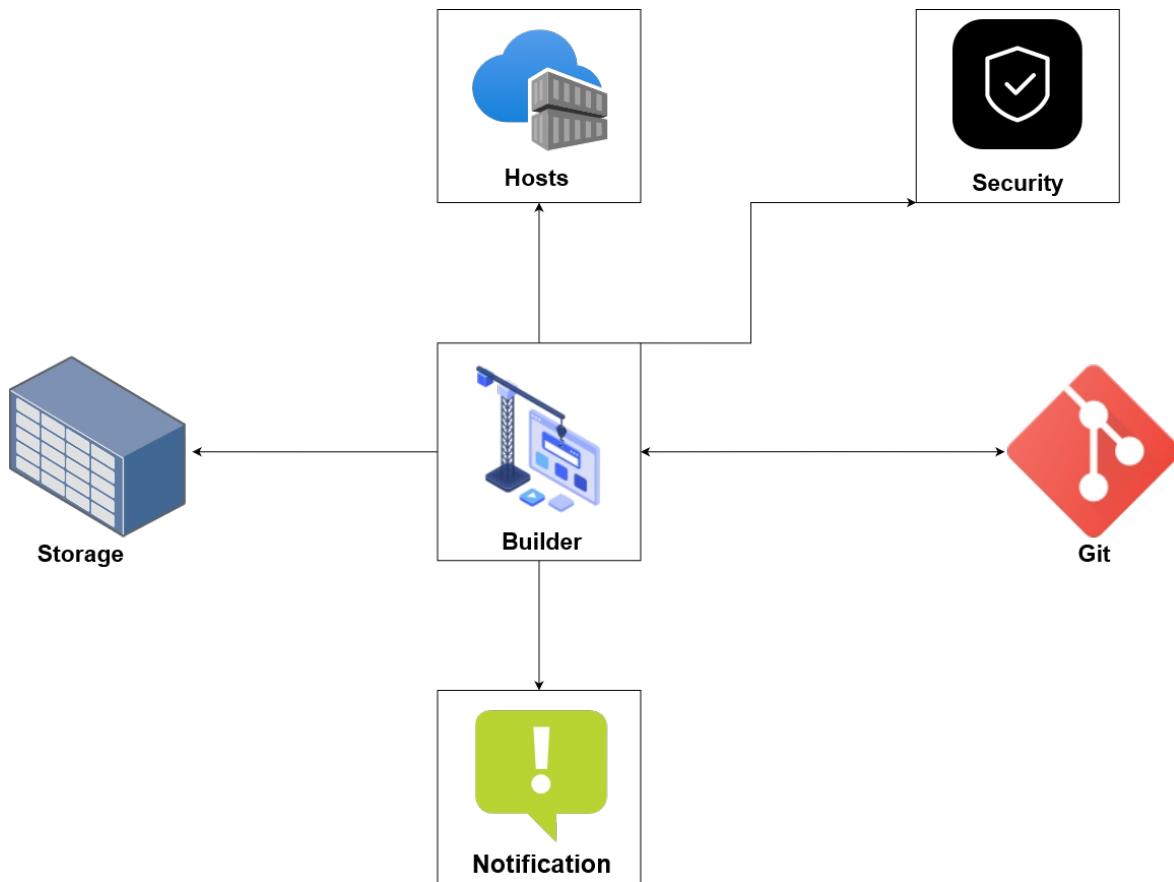
# Что такое CI/CD?

- Написание кода
- Сборка
- Тестирование
- Релиз
- Развертывание
- Поддержка и мониторинг
- Планирование



# Реализация

- Commit/PR в репозиторий
- Оповещение о начале сборки
- Сборка артефакта
- Проверка артефакта
- Оповещение о состоянии сборки
- Развёртывание
- Размещение артефакта в хранилище



# Рабочая среда

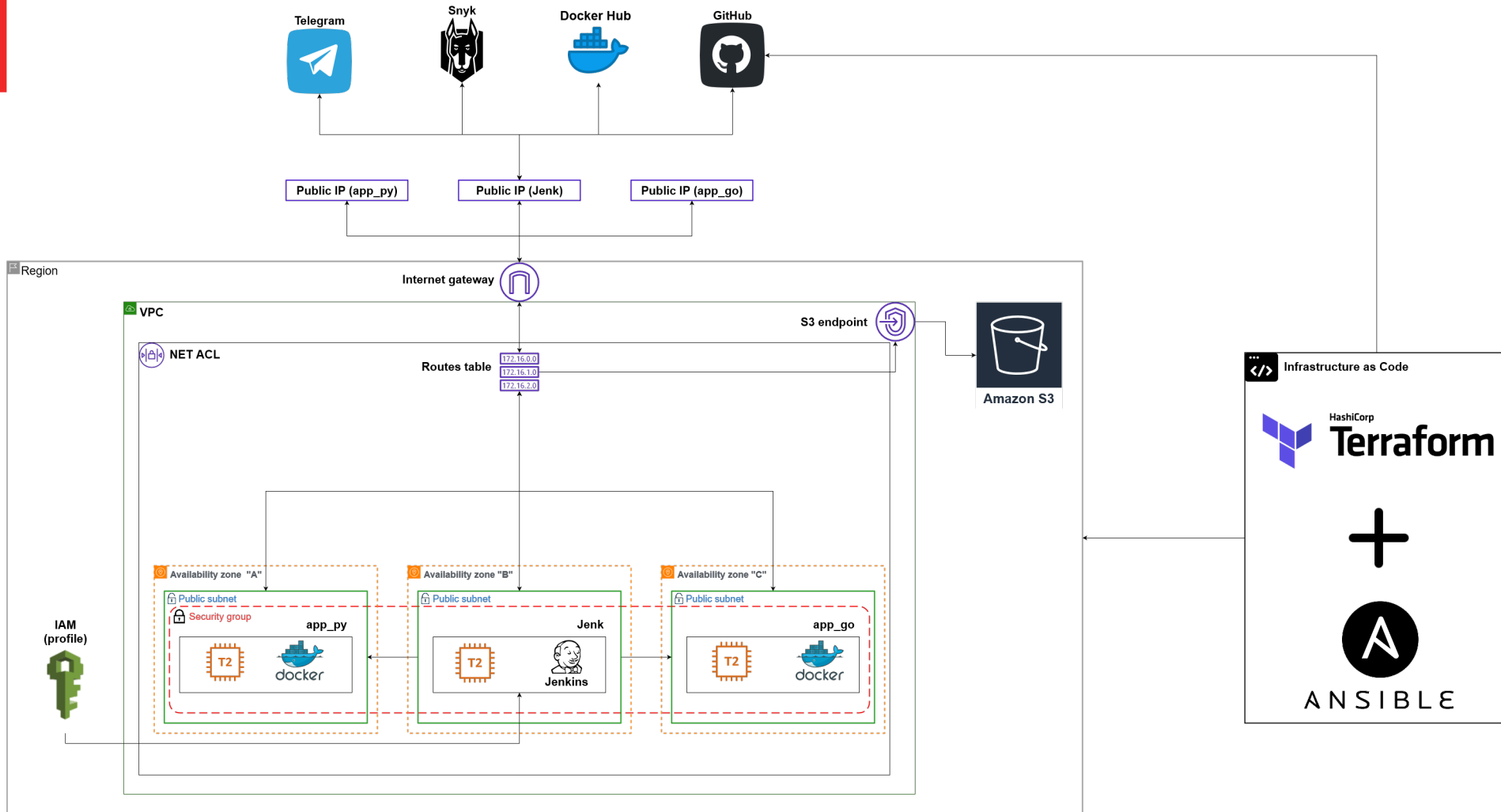
## AWS cloud:

- VPC
- Subnets
- Routes table
- Internet gateway
- Network acl's
- Security group
- Endpoint
- S3 bucket
- IAM role
- EC2 instances


The screenshot displays the AWS Management Console interface for a VPC. At the top, a header bar shows the VPC name 'dip\_vpc', its ID 'vpc-05fb30fff15d5b539', a green 'Available' status icon, and the IPv4 CIDR '10.10.0.0/16'. Below this, the breadcrumb 'vpc-05fb30fff15d5b539 / dip\_vpc' is visible, followed by tabs for 'Details', 'CIDRs', 'Flow logs', and 'Tags'. The 'Details' tab is active, showing a grid of VPC attributes:

Details		
VPC ID vpc-05fb30fff15d5b539	State Available	DNS hostnames Disabled
Tenancy Default	DHCP options set dopt-4733512c	Main route table rtb-096aa49d8cf6b3b85
Default VPC No	IPv4 CIDR 10.10.0.0/16	IPv6 pool -
Route 53 Resolver DNS Firewall rule groups -	Owner ID 660408346279	





# Реализованная инфраструктура




# Jenkins jobs


 **Jenkins**


search


  1  antosha  log out


Dashboard


 New Item


 People


 Build History


 Project Relationship

 Check File Fingerprint

 Manage Jenkins

 My Views

 Lockable Resources

 New View

Build Queue

No builds in the queue.



















Build Executor Status

1 Idle

2 Idle


All


+


S	W	Name ↓	Last Success	Last Failure	Last Duration	
		<a href="#">app_py</a>	4 min 58 sec - <a href="#">#87</a>	N/A	1 min 54 sec	
		<a href="#">go_app</a>	4 min 50 sec - <a href="#">#42</a>	N/A	1 min 45 sec	
		<a href="#">remove_trash_go</a>	2 min 55 sec - <a href="#">#40</a>	2 days 2 hr - <a href="#">#27</a>	7.4 sec	
		<a href="#">remove_trash_py</a>	2 min 55 sec - <a href="#">#34</a>	N/A	7.4 sec	
		<a href="#">restore_app_go</a>	2 days 23 hr - <a href="#">#2</a>	N/A	10 sec	
		<a href="#">restore_app_py</a>	2 days 23 hr - <a href="#">#2</a>	N/A	10 sec	

Icon: S M L

Legend

 Atom feed for all


 Atom feed for failures

 Atom feed for just latest builds





[add description](#)

REST API Jenkins 2.289.2


# Jenkins credentials


 **Jenkins**


search


  1  antosha  log out


Dashboard > Credentials


 New Item


 People


 Build History


 Project Relationship

 Check File Fingerprint

 Manage Jenkins

 My Views

 Lockable Resources

 New View


**Build Queue** ^











No builds in the queue.

**Build Executor Status** ^

1 Idle



2 Idle

 **Credentials**

T	P	Store ↓	Domain	ID	Name
		Jenkins	(global)	Git	Git
		Jenkins	(global)	SSH	ec2-user (ssh doc)
		Jenkins	(global)	chat_id	chat telegram
		Jenkins	(global)	bot_token	bot telegram
		Jenkins	(global)	Snyk	Snyk

Icon: [S](#) [M](#) [L](#)

**Stores scoped to Jenkins**

P	Store ↓	Domains
	Jenkins	 (global)

REST API Jenkins 2.289.2

# GitHub webhook

Options

Manage access

Security & analysis

Branches

Webhooks

Notifications

Integrations

Deploy keys

Actions

Environments

Secrets

Pages

Moderation settings

## Webhooks / Manage webhook

Settings

Recent Deliveries

We'll send a POST request to the URL below with details of any subscribed event (JSON, x-www-form-urlencoded, etc). More information can be found in [our docs](#).

Payload URL \*

Content type

Secret

Which events would you like to trigger this webhook?

☒ Just the push event.

☐ Send me **everything**.

☐ Let me select individual events.

☒ Active

We will deliver event details when this hook is triggered.

[Update webhook](#)

[Delete webhook](#)

## Webhooks / Manage webhook

Settings

Recent Deliveries



45bb39f4-efb2-11eb-9e0a-d78f6a9e2d15

2021-07-28 17:44:14

Request

Response

200

[Redeliver](#)



Completed in 2.54 seconds.

### Headers


```
Request URL: http://3.19.53.73:8080
Request method: POST
Accept: */*
content-type: application/json
User-Agent: GitHub-Hookshot/f5bdc90
X-GitHub-Delivery: 45bb39f4-efb2-11eb-9e0a-d78f6a9e2d15
X-GitHub-Event: push
X-GitHub-Hook-ID: 307446599
X-GitHub-Hook-Installation-Target-ID: 385545011
X-GitHub-Hook-Installation-Target-Type: repository
```

### Payload





```
{
  "ref": "refs/heads/app_main",
  "before": "90e8aca92fc67f342987de3ea1f2caebede6044",
  "after": "489b4810653c7cda5ec15e8dc00c7c102acf9059",
  "repository": {
    "id": 385545011,
    "node_id": "MDEwO1JlcG9zaXRvcnkzODU1NDUwMTE=",
    "name": "app_one",
    "full_name": "CowboyFromHell/app_one",
```




# Сборка


 **Jenkins**


search


  1  antosha  log out


Dashboard > app\_py > #87


 Back to Project


 Status


 Changes


 Console Output


 Edit Build Information


 Delete build '#87'


 Polling Log


 Git Build Data


 Snyk Security Report


 Restart from Stage

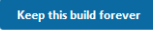
 Replay


 Pipeline Steps


 Workspaces



 Previous Build


 **Build #87 (Wed Jul 28 17:44:21 MSK 2021)**



 add description Started 5 min 40 sec ago  
Took 1 min 54 sec

 **Build Artifacts**

 2021-07-28T14-45-59-984875Z\_snyk\_report.html 4.58 KB  view


 **Changes**

1. New message (details / githubweb)


2. Update app\_py.py (details / githubweb)

3. Update app\_py.py (details / githubweb)


4. Update app\_py.py (details / githubweb)

 **Started by**

GitHub push by CowboyFromHell

 The following steps that have been detected may have insecure interpolation of sensitive variables ([click here for an explanation](#)):

- sh: [CHAT\_ID, TOKEN]
- sh: [CHAT\_ID, TOKEN]

 **git**

**Revision:** 489b4810653c7cda5ec15e8dc0c7c102acf9059  
**Repository:** [https://github.com/CowboyFromHell/app\\_one.git](https://github.com/CowboyFromHell/app_one.git)

- refs/remotes/origin/app\_main

REST API Jenkins 2.289.2


# Уведомления

Started building **app\_py**  
Date: Tue 27 Jul 2021 12:28:55 PM MSK 12:28

**app\_py:**  
Build: **OK**  
Published: **YES**  
Date: Tue 27 Jul 2021 12:29:33 PM MSK 12:29

Started building **remove\_trash\_py**  
Date: Tue 27 Jul 2021 12:29:42 PM MSK 12:29

**remove\_trash\_py:**  
Remove: 2021-05-27/ 12:29


 **remove\_trash\_py:**  
Build: **OK**  
Date: Tue 27 Jul 2021 12:29:51 PM MSK 12:29

Started building **go\_app**  
Date: Tue 27 Jul 2021 12:31:53 PM MSK 12:31


**go\_app:**  
Build: **OK**  
Published: **YES**  
Date: Tue 27 Jul 2021 12:32:28 PM MSK 12:32


Started building **remove\_trash\_go**  
Date: Tue 27 Jul 2021 12:32:37 PM MSK 12:32

**remove\_trash\_go**  
Remove: 2021-05-27/ 12:32


 **remove\_trash\_go:**  
Build: **OK**  
Date: Tue 27 Jul 2021 12:32:46 PM MSK 12:32

# Отчёт Skyk


 Jenkins


 1


antosha


 log out


Dashboard > app\_py > #87 > Snyk Security Report


 Back to Project


 Status


 Changes


 Console Output


 Edit Build Information


 Delete build '#87'


 Polling Log


 Git Build Data


 Snyk Security Report

 Restart from Stage

 Replay

 Pipeline Steps

 Workspaces

 Previous Build

**snyk**

Snyk test report

July 28th 2021, 2:46:00 pm

Scanned the following path:

- app\_py\_img.latest (linux)

0 known vulnerabilities | 0 vulnerable dependency paths | 0 dependencies

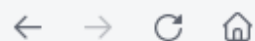
<b>Project</b>	docker-image app_py_img
<b>Path</b>	app_py_img.latest
<b>Package Manager</b>	linux
<b>Manifest</b>	Dockerfile

No known vulnerabilities detected.

Jenkins 2.289.2

# Приложения

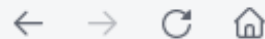
## Python app



3.144.34.62:8080

Wake up Neo!  
This is Python App!  
Made with ❤️ by Antosha

## Go app



18.220.187.250:8080

Wake up Neo!  
This is Go App!  
Made with ❤️ by Antosha

# Хранение артефактов

Amazon S3 > mydoombucket666 > go/ > 2021-07-28/

2021-07-28/

Copy S3 URI

Objects

Properties

## Objects (1)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)



Copy S3 URI

Copy URL

Download

Open

Delete


Actions

Create folder

Upload

Find objects by prefix

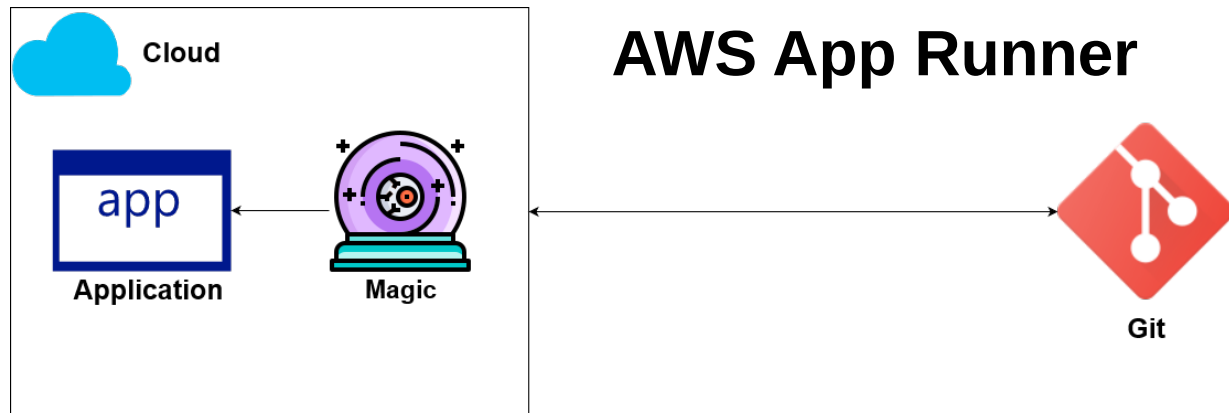
< 1 > ⚙

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	 app_go_17_46.tar	tar	July 28, 2021, 17:46:14 (UTC+03:00)	14.6 MB	Standard

# Идеальное решение

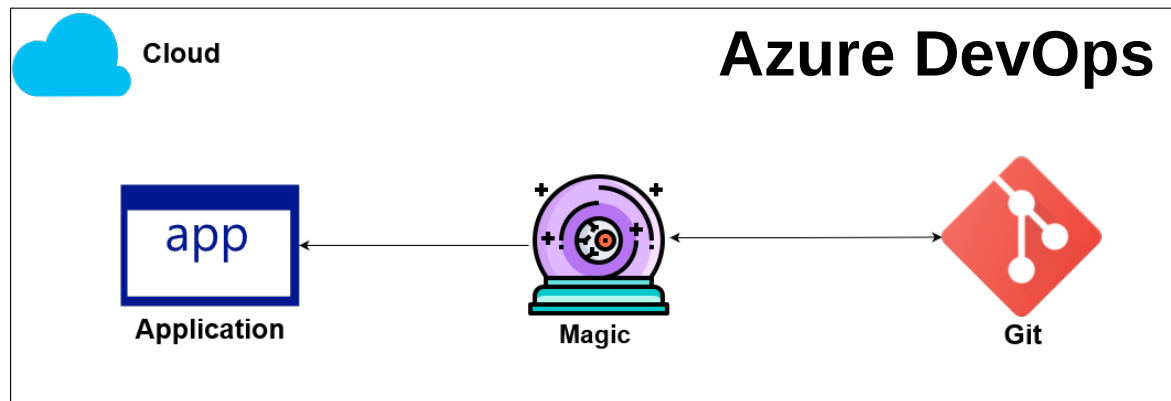
## Плюсы:

- + Автоматическая развертка окружения
- + Всё в одном месте



## Минусы:

- Совместимость
- Цена





**СПАСИБО ЗА ВНИМАНИЕ!**