Infra CI/CD Jenkins 설정

Java 설치

1. Java 8 설치

```
sudo yum install -y java-1.8.0-openjdk-devel.x86_64
```

2. Java version 변경

```
sudo /usr/sbin/alternatives --config java
2 + Enter
```

3. Java 7 삭제

```
sudo yum remove java-1.7.0-openjdk
```

4. Java 8 확인

```
java -version
```

Jenkins 설치

1. yum update

```
sudo yum update
```

2. Jenkins 다운로드

```
sudo wget -O /etc/yum.repos.d/jenkins.repo https://pkg.jenkins.io/redhat-stable/jenkins.repo
```

3. Jenkins 저장소 키를 등록

```
sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io.key
```

4. Jenkins 설치

```
sudo yum install jenkins
```

5. Jenkins Password 코드를 설정

```
sudo cat /var/lib/jenkins/secrets/initialAdminPassword
```

Nginx 설치

1. Nginx 설치

```
sudo yum install nginx
```

2. proxy pass 설정

```
sudo vim /etc/nginx/nginx.conf
```

```
proxy_pass http://localhost:8080;
proxy_set_header X-Real-IP $remote_addr;
proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
proxy_set_header Host $http_host;
```

3. Nginx 실행

```
sudo service nginx start
```

Terraform 설치

```
sudo yum update
wget
https://releases.hashicorp.com/terraform/0.12.20/terraform_0.12.20_linux_amd64.z
ip
unzip terraform_0.12.20_linux_amd64.zip
sudo mv terraform /usr/bin/
```

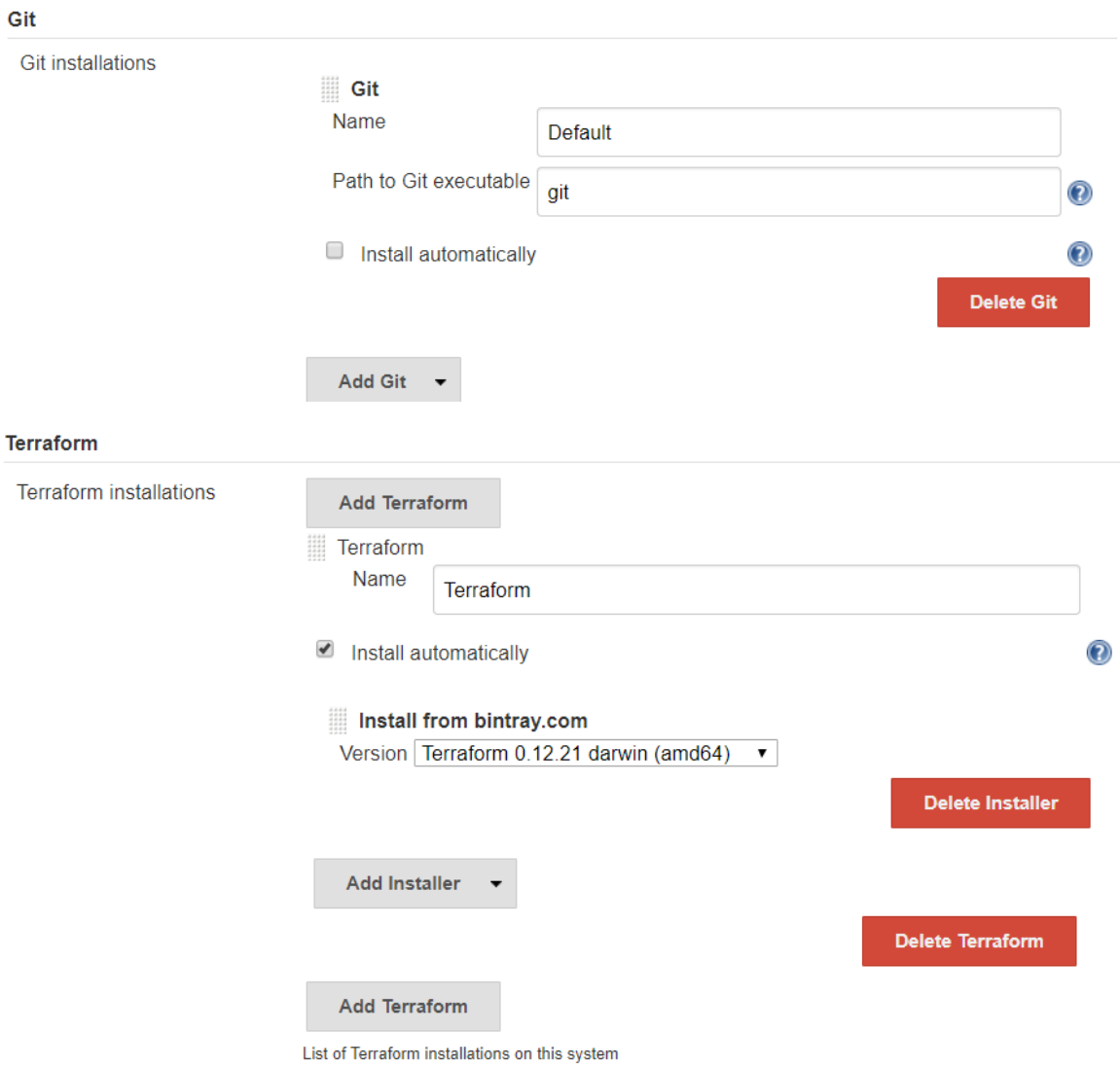
Git 설치

```
sudo yum install git
which git       # /usr/bin/git 이면 ok
```

Plugin 설치 목록

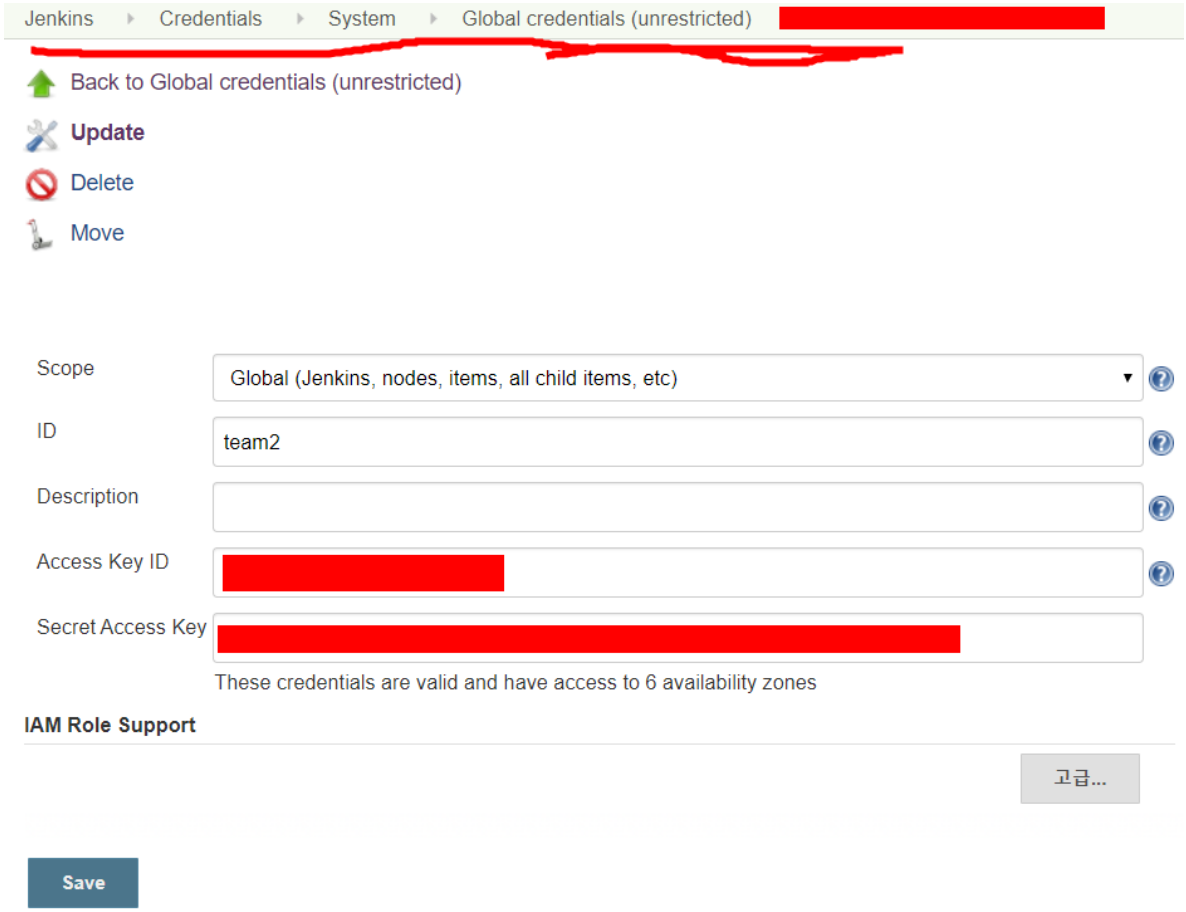
- AWS CodePipeline Plugin
- Pipeline: AWS Steps
- Blue Ocean
- GitHub Authentication plugin
- Pipeline
- Terraform Plugin
- Deploy to container Plugin

Global Tool Configuration

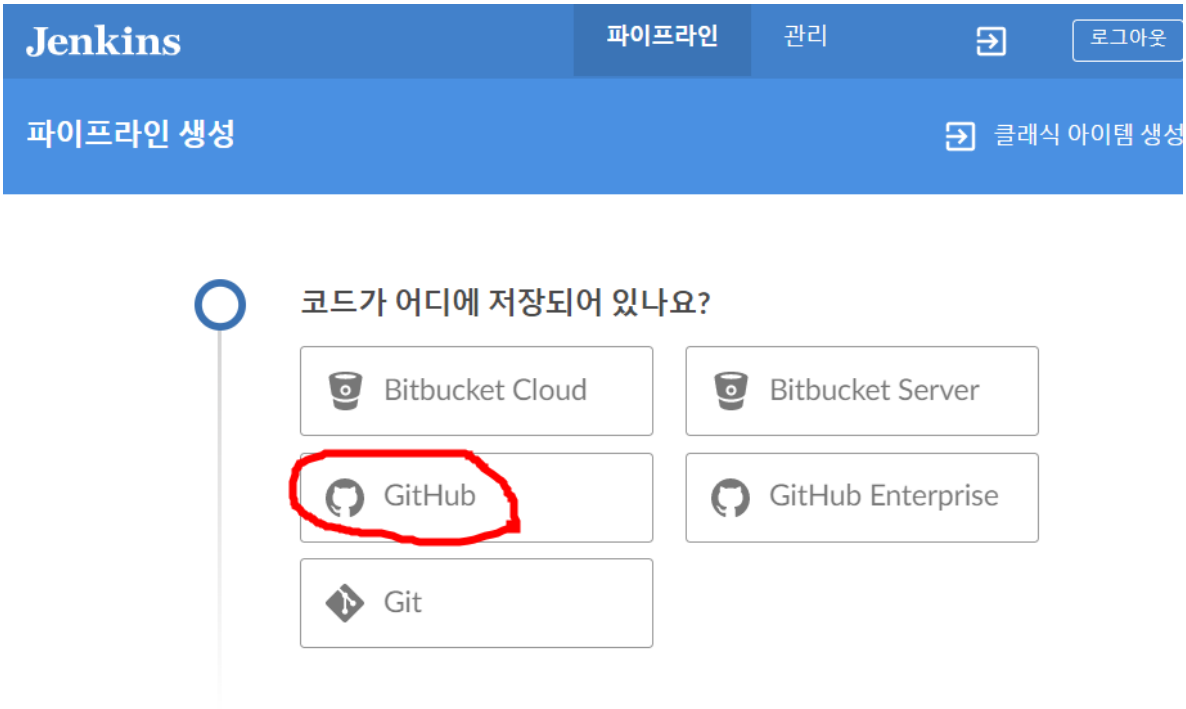


계정 정보 설정

aws 계정 정보 설정


Jenkins
Credentials
System
Global credentials (unrestricted)
Back to Global credentials (unrestricted)
Update
Delete
Move
Scope
Global (Jenkins, nodes, items, all child items, etc)
ID
team2
Description
Access Key ID
Secret Access Key
These credentials are valid and have access to 6 availability zones
IAM Role Support
고급...
Save

Blue ocean



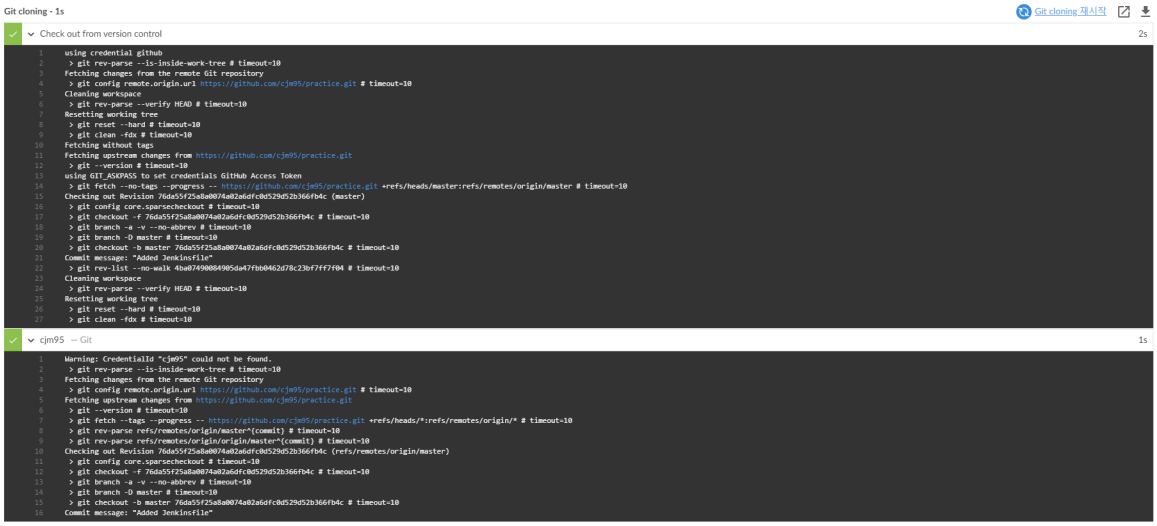
계정 정보 설정

/var/lib/jenkins/workspace/ 에 다음과 같은 변수 값을 지닌 var.json파일을 미리 생성해 두어야 한다.

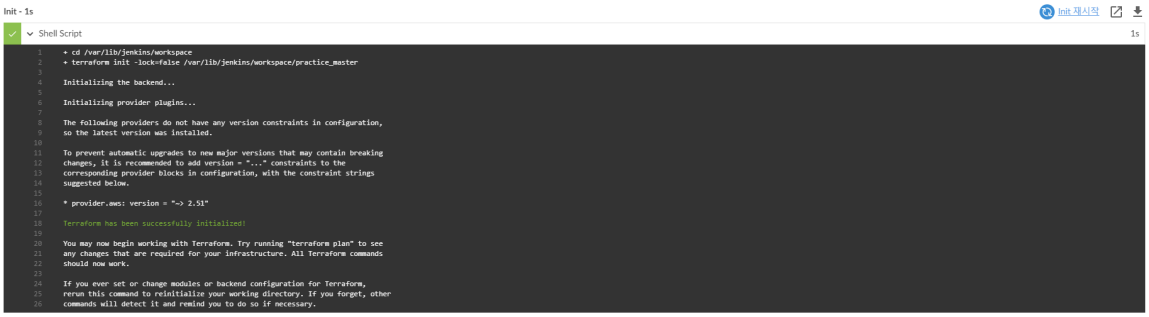
```
{
        "aws_access_key" : "access key value",
        "aws_secret_key" : "secret key value",
        "db_password"    : "DB password",
        "db_username"    : "DB master user name"
}
```

CICD 수행 과정

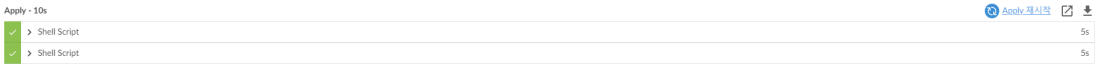
1. Git clone



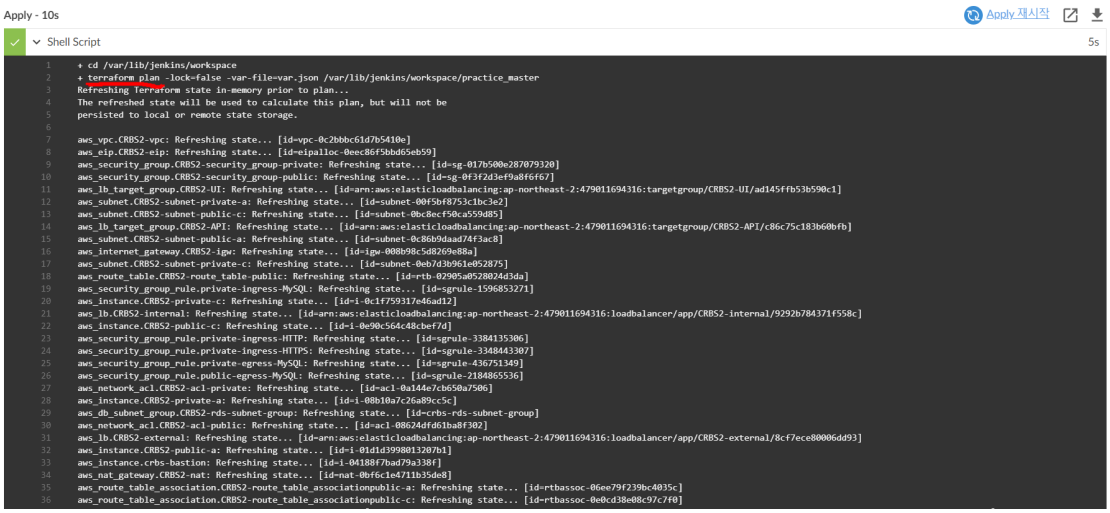
2. terraform init



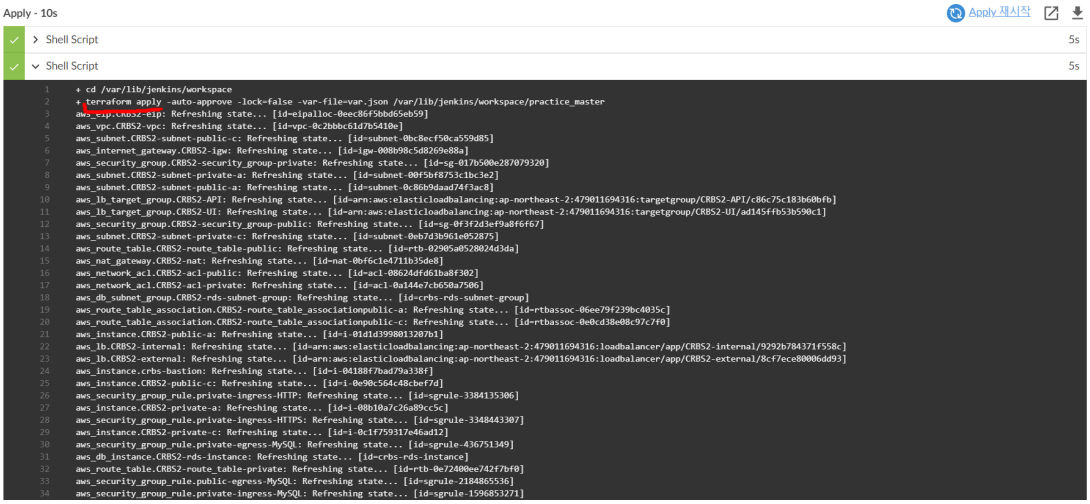
3. terraform 실행



1. terraform plan

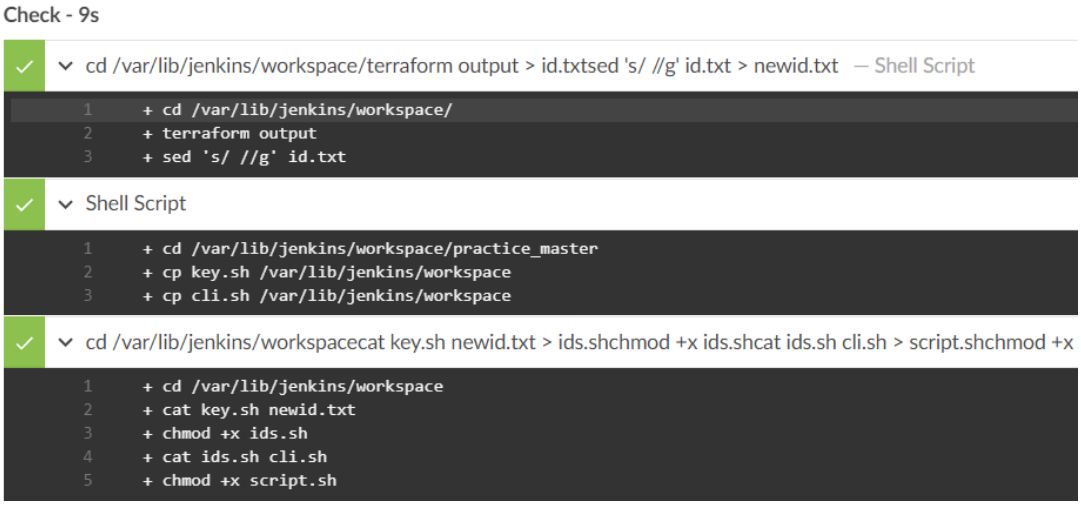


2. terraform apply



4. 생성된 리소스 확인

    1. 생성된 리소스 결과값 받기
    2. Git에서 받아온 shell 파일 workspace로 이동
    3. shell 파일과 리소스 결과값으로 resource cli script 완성



4. script 결과물

cd /var/lib/jenkins/workspace/./script.sh — Shell Script

```
+ cd /var/lib/jenkins/workspace/
+ ./script.sh
[
    [
        [
            {
                "Value": "CRBS2-vpc",
                "Key": "Name"
            }
        ]
    ]
]
[
    [
        "CRBS2-public-a"
    ]
]
[
    [
        "CRBS2-public-c"
    ]
]
[
    [
        "CRBS2-private-a"
    ]
]
[
    [
        "CRBS2-private-c"
    ]
]
[
    [
        "CRBS2-igw"
    ]
]
[
    [
        "CRBS2-nat"
    ]
]
```