Brief: In recent days I wrote a script that, using Terraform and Ansible, creates an instance that hosts Rundeck open-source version. Under I put README.md with some additional comments and explanation.

Repository available at **https://github.com/ANODA/Terraform-Ansible-Rundeck/**

Issue 1: README.md

Terraform-Ansible-Rundeck

About

Script creating AWS VM using Terraform, then installing Rundeck with Ansible.

Result

When accessing the instance's IP address via a web browser Rundeck login screen will load. Default credentials are `user: admin` and `password: admin`

Current state

- ☒ Create VM
- ☒ Make ssh connection
- ☒ Install dependencies
- ☒ Install Rundeck
- ☒ Configure Rundeck
- ☒ Configure proxy server

Auto variable filling

Create `*.auto.tfvars` file with pattern:

Default values can be seen in `var.tf`

```
aws_region = ""
aws_access_key = ""
aws_secret_key = ""

# Path to file is suggested here
public_key = ""
private_key = ""

ansible_user = ""
```

Issue 2: VM configuration

VM instance config			
Instance type	t2 micro		
AMI	Ubuntu server 20.04 (amd64)		
	Port	Protocol	Description
	80	TCP	Security group for web that allows web traffic from internet
	443	TCP	
Open ports	8080	TCP	Default security group that allows to use port 8080
	22	TCP	Security group for nat instances that allows SSH and VPN traffic from internet
	0	-1	Default security group that allows inbound and outbound traffic from all instances in the VPC
	-1	ICMP	Default security group that allows to ping the instance
Key pair	Yes, named *MyKeyPair*		

Issue 3: Bash shell script

In `main.tf` two commands are called with `remote-exec` and `local-exec`. Task of first of them is only to establish an ssh connection and trigger echo. This ensures that the machine is ready for operation.
The second one makes bash script executable and run it with proper arguments (public IP, OS user and private key).

Listing 1: `install_rundeck.sh` with additional captitions

```
1   #!/bin/bash
2   set -euxo pipefail
3
4   # $1 - ${aws_instance.rundeck_dev.public_ip}
5   # $2 - ${var.ansible_user}
6   # $3 - ${var.private_key}
7
8   # Create Ansible inventory file
9   touch rundeck.ini
10  echo "[rundeck]" | tee rundeck.ini;
11  echo "$1 ansible_public_ip=$1 ansible_user=$2 ansible_ssh_private_key_file=$3" |
        tee -a rundeck.ini;
12
13  # Avoid host key checking by the underlying tools Ansible uses to connect to the
        host
14  export ANSIBLE_HOST_KEY_CHECKING=False;
15
16  # Execute Ansible script
17  ansible-playbook -u $2 --private-key $3 -i ./rundeck.ini ./playbooks/
        install_rundeck.yml
```

Issue 4: Ansible playbook - list of steps

1. Install OpenJDK (Rundeck dependency)

2. Download and install Rundeck

3. Configure Rundeck properties

- Server name
- Server hostname
- Server URL
- Server URI redirection

4. Install Nginx and configure as proxy server for port 80