1. What are different artifacts you need to create - name of the artifacts and its purpose.

* Created individual module for each component which will have main.tf and var.tf files deploying each component.

1. List the tools you will use to create and store the Terraform templates.

* Used visual studio code for deploying the Terraform templates saved in Azure Repo.
* Keyvault is used for storing the virtual machine admin\_username and admin\_password.

1. Explain the process and steps to create automated deployment pipeline.

* Created below flow for deploying the resources. Created individual components and modules.tf responsible for deploying each component. Also, created azure-pipelines.yml for the automating the deployment.

A picture containing graphical user interface

Description automatically generated

4) Create a sample Terraform template you will use to deploy Below services:

Vnet

2 Subnet

NSG to open port 80 and 443

1 Window VM in each subnet

1 Storage account

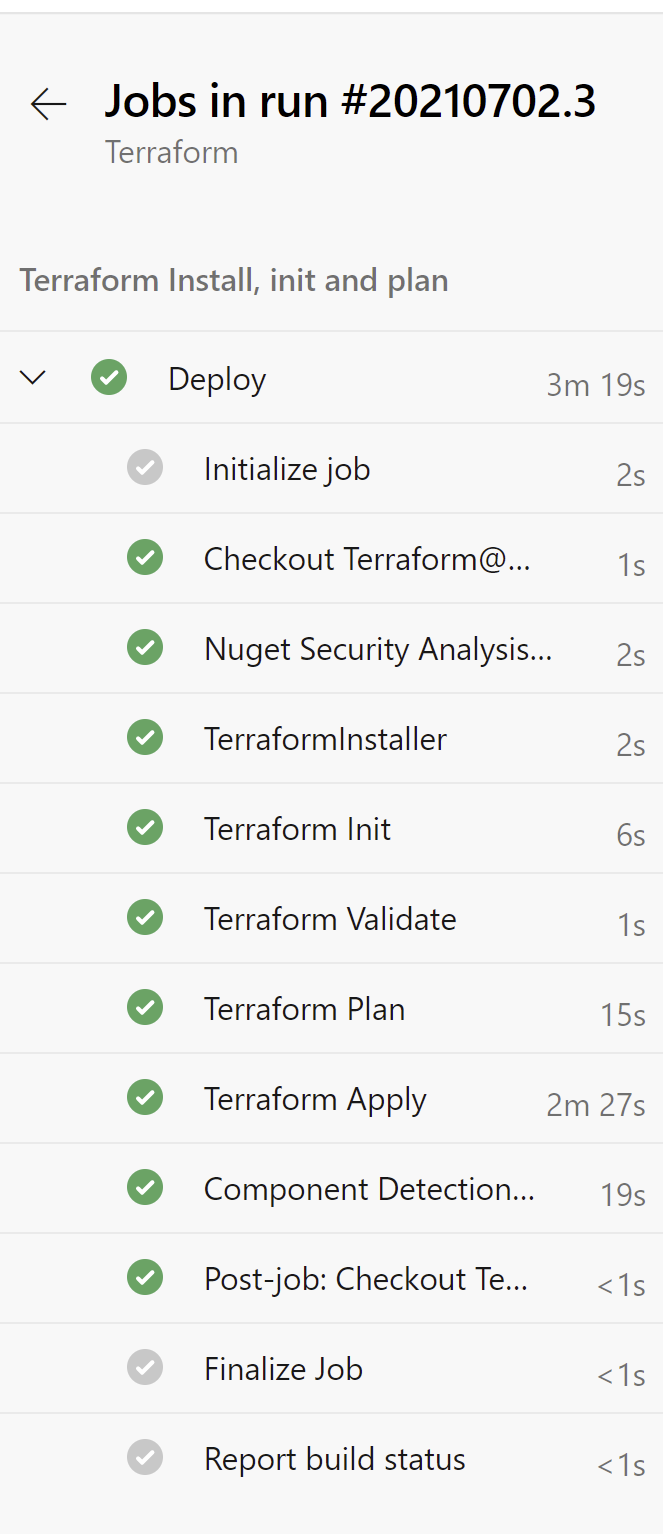
* Created below modules for deployment:
* Resource-group
* Virtual-network: it will created two subnets along with NSG
* Virtual-machine
* Storage-account
* Keyvault

5) Explain how will you access the password stored in Key Vault and use it as Admin Password in the VM

Terraform template.

* Created keyvault secret for storing virtual machine password which is getting created randomly with the help of terraform script.
* We need to refer the keyvault id as a output in Virtual machine module, also in the modules.tf, add “depends on” while calling the keyvault module.

Deployment through the yaml pipeline is successful:



Graphical user interface, application

Description automatically generated

Graphical user interface, text, application

Description automatically generated