1. Created a main.tf file with all the configuration details for creating a virtual machine.

```
PS C:\Users\Rohith Kandikatla\Desktop\azuredevops\azureterraform> terraform init

Initializing the backend...

Initializing provider plugins...
- Reusing previous version of hashicorp/azurerm from the dependency lock file
- Using previously-installed hashicorp/azurerm v3.0.0

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
rerun this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary.
```

```
PS C:\Users\Rohith Kandikatla\Desktop\azuredevops\azureterraform> terraform plan

Error: Invalid function argument

  on main.tf line 66, in resource "azurerm_linux_virtual_machine" "example":
  66:     public_key = file("~/.ssh/id_rsa.pub")
    |----------------
    | while calling file(path)

Invalid value for "path" parameter: no file exists at "~/.ssh/id_rsa.pub"; this function works only with files that are distributed as part of the
configuration source code, so if this file will be created by a resource in this configuration you must instead obtain this result from an attribute of
that resource.
```

```
PS C:\Users\Rohith Kandikatla\Desktop\azuredevops\azureterraform> ssh-keygen
Generating public/private ed25519 key pair.
Enter file in which to save the key (C:\Users\Rohith Kandikatla/.ssh/id_ed25519):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in C:\Users\Rohith Kandikatla/.ssh/id_ed25519
Your public key has been saved in C:\Users\Rohith Kandikatla/.ssh/id_ed25519.pub
The key fingerprint is:
SHA256:KTc8MPsowPFdQM/f3ucltJ2DQfqxBbZY6E/xZKlDLvA rohith kandikatla@DESKTOP-KJOVULU
The key's randomart image is:
+--[ED25519 256]--+
|     .o          |
|       +    .   .|
|  .   o +. . B + |
| . o . * o+.O O  |
|  o . + S .E.O.o |
|   .   = o .=oBo.|
|    . . .   .=+o+|
|     .         +o|
|                .|
+----[SHA256]-----+
```

```
PS C:\Users\Rohith Kandikatla\Desktop\azuredevops\azureterraform> terraform validate
Success! The configuration is valid.
```

```
PS C:\Users\Rohith Kandikatla\Desktop\azuredevops\azureterraform> terraform plan

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:
  + create

Terraform will perform the following actions:

  # azurerm_linux_virtual_machine.example will be created
  + resource "azurerm_linux_virtual_machine" "example" {
      + admin_username                  = "adminuser"
      + allow_extension_operations      = true
      + computer_name                   = (known after apply)
      + disable_password_authentication = true
      + extensions_time_budget          = "PT1H30M"
      + id                              = (known after apply)
      + location                        = "eastus"
      + max_bid_price                   = -1
      + name                            = "example-machine"
      + network_interface_ids           = (known after apply)
      + patch_mode                      = "ImageDefault"
      + platform_fault_domain           = -1
      + priority                        = "Regular"
      + private_ip_address              = (known after apply)
      + private_ip_addresses            = (known after apply)
      + provision_vm_agent              = true
```

```
  # azurerm_virtual_network.example will be created
  + resource "azurerm_virtual_network" "example" {
      + address_space       = [
          + "10.0.0.0/16",
        ]
      + dns_servers         = (known after apply)
      + guid                = (known after apply)
      + id                  = (known after apply)
      + location            = "eastus"
      + name                = "example-network"
      + resource_group_name = "example-resources1"
      + subnet              = (known after apply)
    }

Plan: 6 to add, 0 to change, 0 to destroy.
```

```
PS C:\Users\Rohith Kandikatla\Desktop\azuredevops\azureterraform> terraform apply

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:
  + create

Terraform will perform the following actions:

  # azurerm_linux_virtual_machine.example will be created
  + resource "azurerm_linux_virtual_machine" "example" {
      + admin_username                  = "adminuser"
      + allow_extension_operations      = true
      + computer_name                   = (known after apply)
      + disable_password_authentication = true
      + extensions_time_budget          = "PT1H30M"
      + id                              = (known after apply)
      + location                        = "eastus"
      + max_bid_price                   = -1
      + name                            = "example-machine"
      + network_interface_ids           = (known after apply)
      + patch_mode                      = "ImageDefault"
      + platform_fault_domain           = -1
      + priority                        = "Regular"
```

```
Apply complete! Resources: 6 added, 0 changed, 0 destroyed.
PS C:\Users\Rohith Kandikatla\Desktop\azuredevops\azureterraform>
```

2. All the resources got created on Azure portal using terraform(IaC)