

Introduction

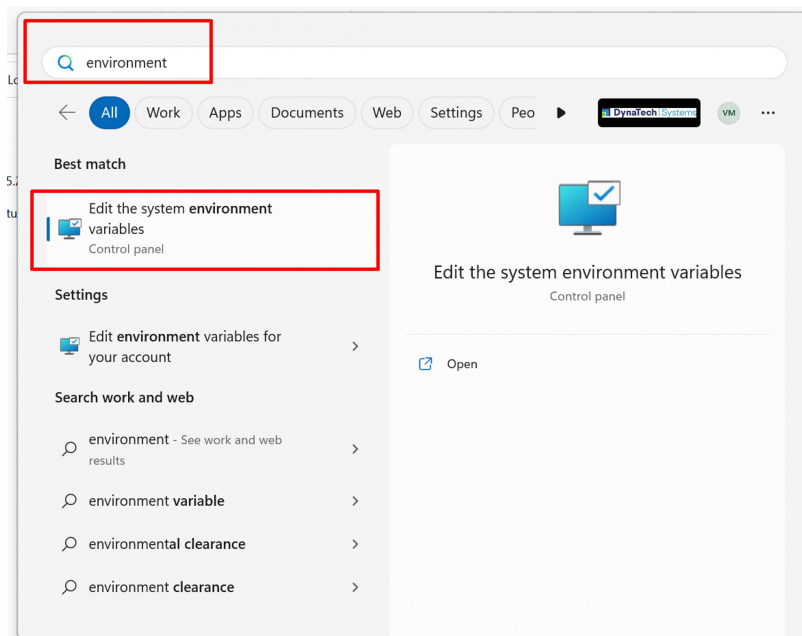
22 April 2023 18:53

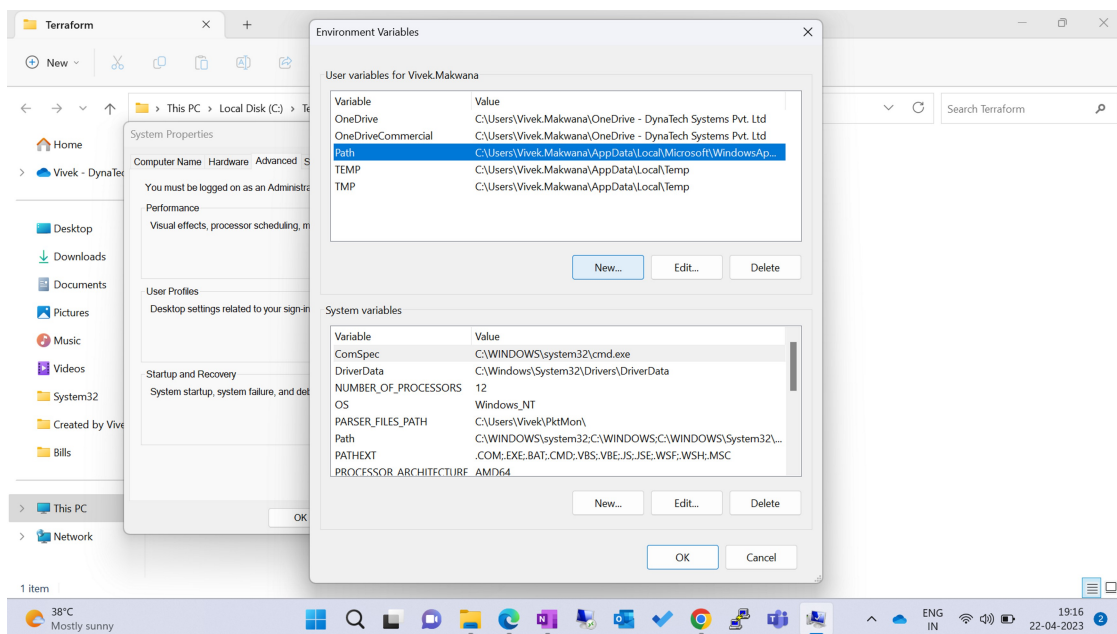
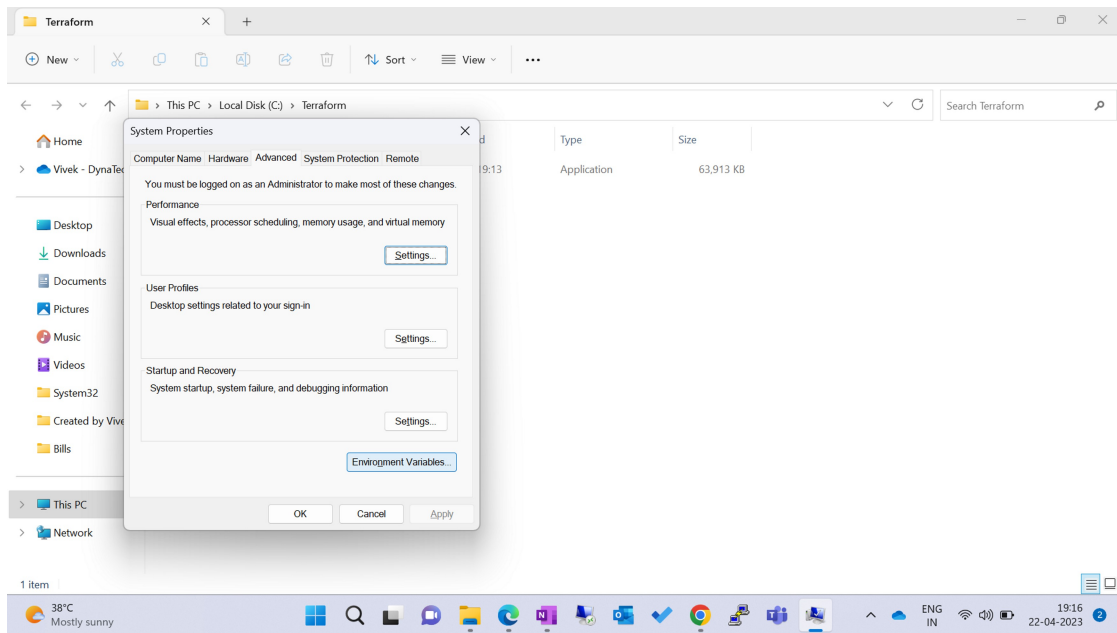
Why terraform

- Supports multiple providers
- Made for Create Infrastructure
- Maintain created resources state
- Create/Delete infra with single file only (Apply/Destroy)

Installation Of Terraform:

1. Download latest Version of terraform (https://releases.hashicorp.com/terraform/1.4.5/terraform_1.4.5_windows_amd64.zip)
2. Extract file to C:\terraform Folder
3. Set environment path





4. Add new path where you extract terraform folder (Ex: c:\terraform\)
5. Install any code editor (I like visual studio code)
6. Open folder:
7. Create File With hello-world.tf

Variable:

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1. Create variable folder and make file with name 01_input.tf and File.

Code:

```
variable "Username" { #taking input as String for Username var
  type = string #datatype
}
output "printname" { # printing Block
  value = "Welcome ${var.Username}" # Printing username var Input with --> ${}
```

Output:

```
$ terraform.exe plan
```

```
var.Username
```

```
Enter a value: Vivek
```

```
Changes to Outputs:
```

```
+ printname = "Welcome Vivek"
```

2. Printing Usernames with List type:

Code:

```
variable Username {
  type = list
}
output printname {
  value = "Welcome ${var.Username[0]}"
}
```

Output:

```
PS C:\Terraform\Variables> terraform.exe plan
```

```
var.Username
```

```
Enter a value: ["vivek","Shivam","Vatsal"]
```

```
Changes to Outputs:
```

```
+ printname = "Welcome vivek"
```

3. Function

1. Join Function:

Code:

03_variable.tf File:

```
variable Users {
  type = list
  default = ["Vivek", "Bhavik", "Urvish", "Kushal"]
}
```

03_Function_Join.tf File:

```
output Print {
  value = "${join("-->",var.Users)}"
}
```

Output:

```
PS C:\Terraform\Variables> terraform apply
```

```
Changes to Outputs:
```

```
+ Print = "Vivek-->Bhavik-->Urvish-->Kushal"
```

2. Upper Function:

Code:

03_Function_upper.tf File:

```
output "Print2" {
  value = "${upper(var.Users[2])}"
}
```

Output:

```
PS C:\Terraform\Variables> terraform.exe plan
```

```
Changes to Outputs:
```

```
+ Print2 = "URVISH"
```

3. Lookup Function:

Code:

```
variable "UserAge" {  
  type = map  
  default = {  
    Kaushik = 20  
    Vishal = 21  
  }  
}  
output "PrintAge" {  
  value = "Age Of Kaushik is ${lookup(var.UserAge, "Kaushik")}"  
}
```

Output:

```
PS C:\Terraform\Map-variable> terraform.exe plan
```

Changes to Outputs:

```
+ PrintAge = "Age Of Kaushik is 20"
```