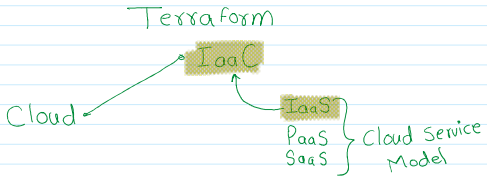
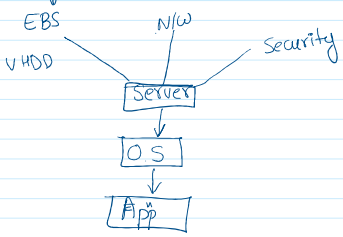
63.27Jun. IaaC(Terraform)

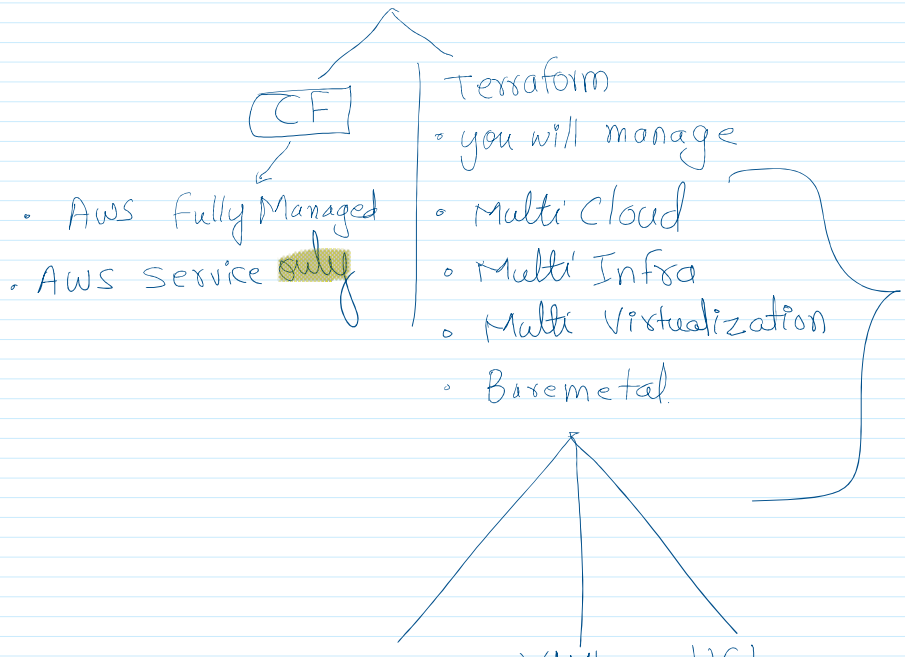
Tuesday, June 27, 2023 7:24 PM

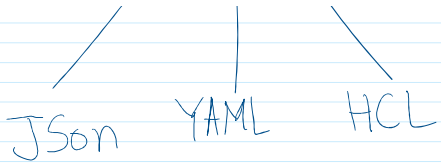


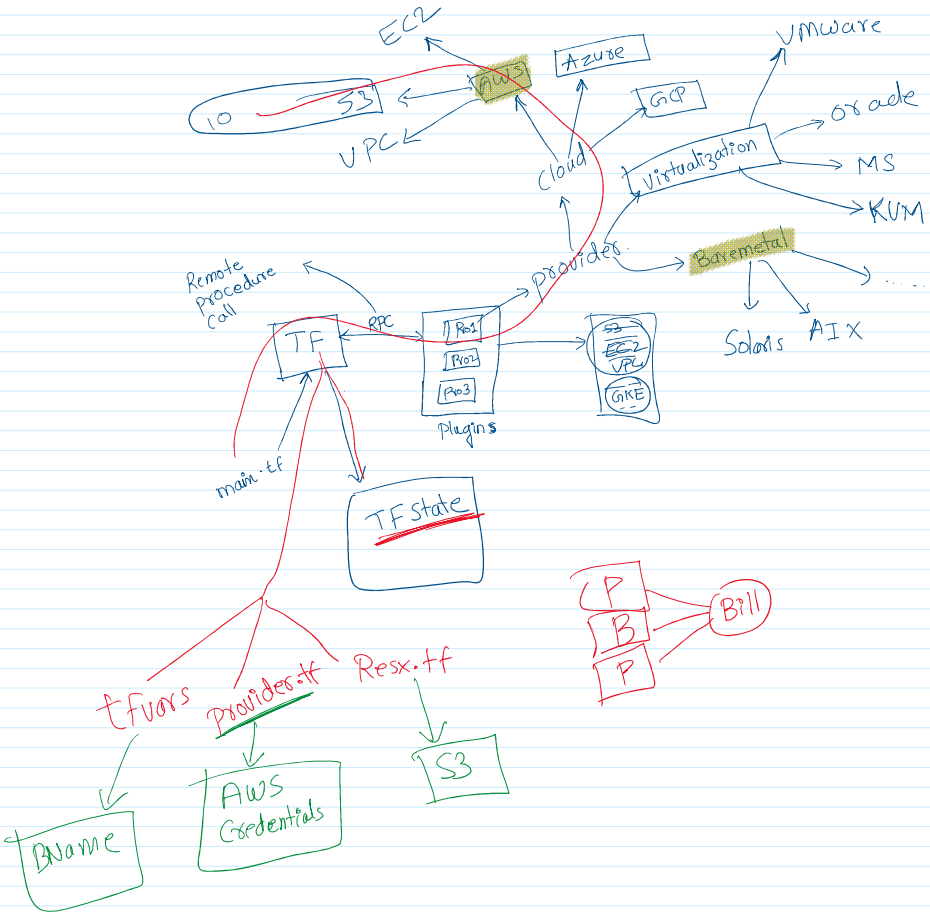
IaaS

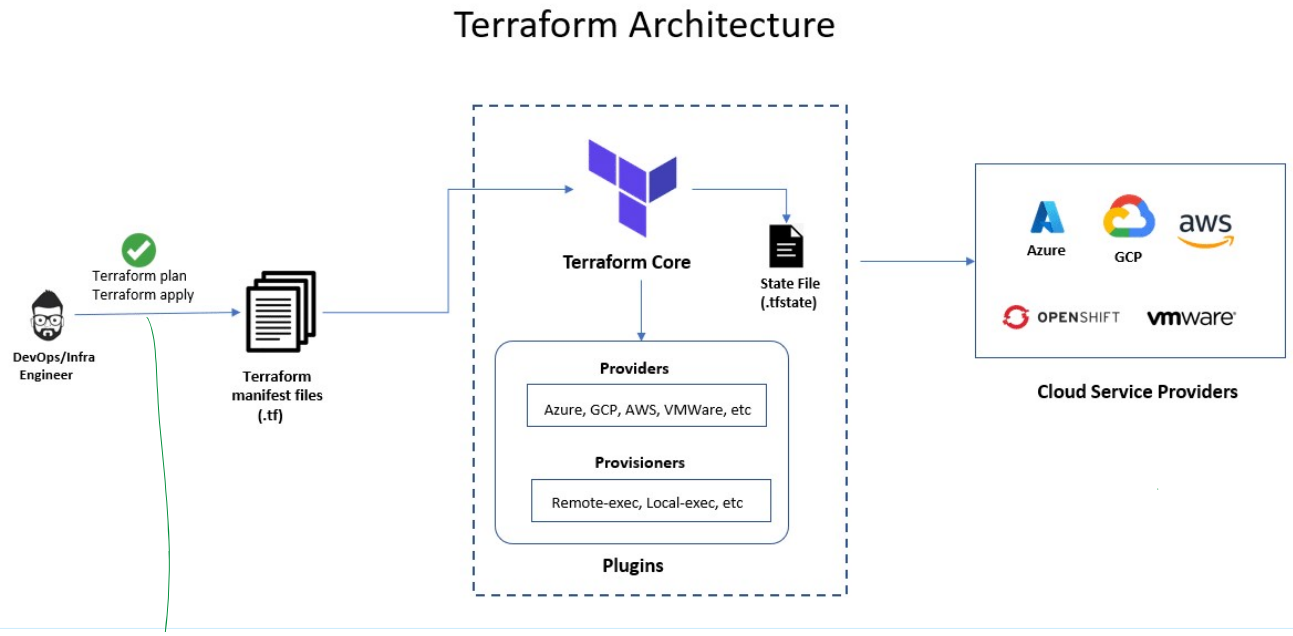
- Category of Service's
- Low Level resource creation
- Storage, Server, Network, Security

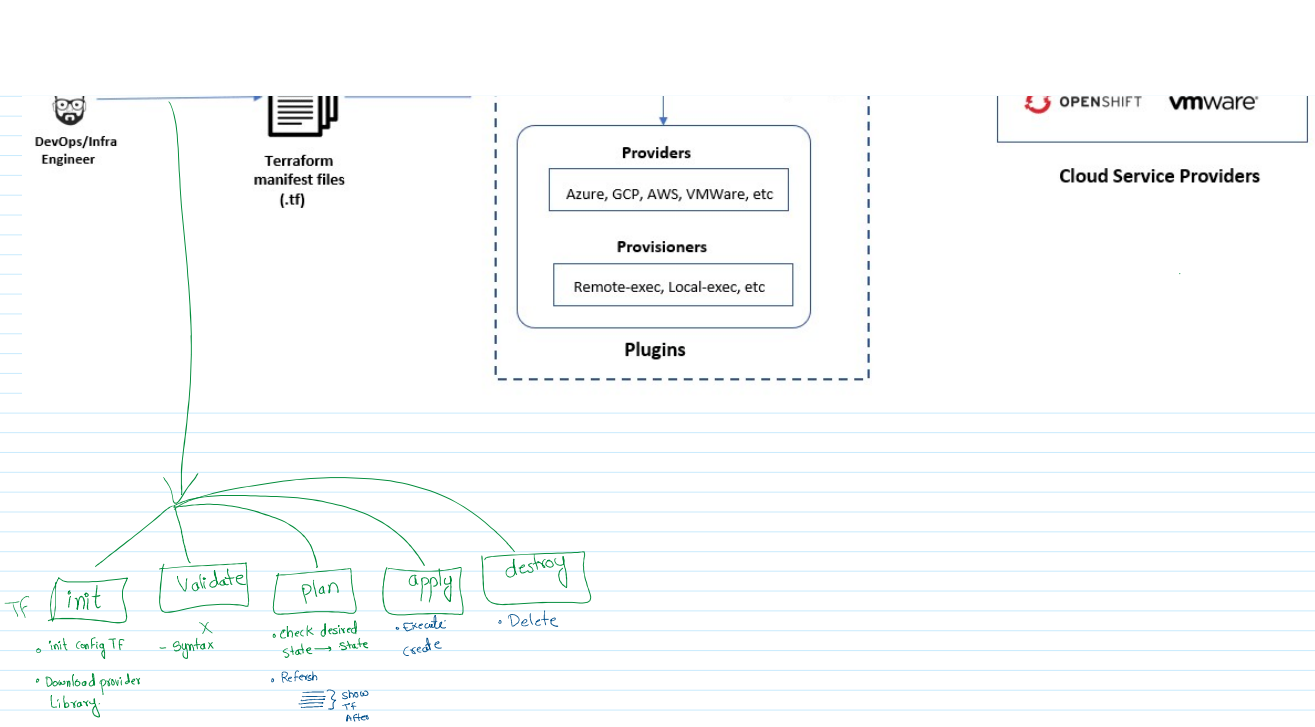





JSon
YAML
HCL

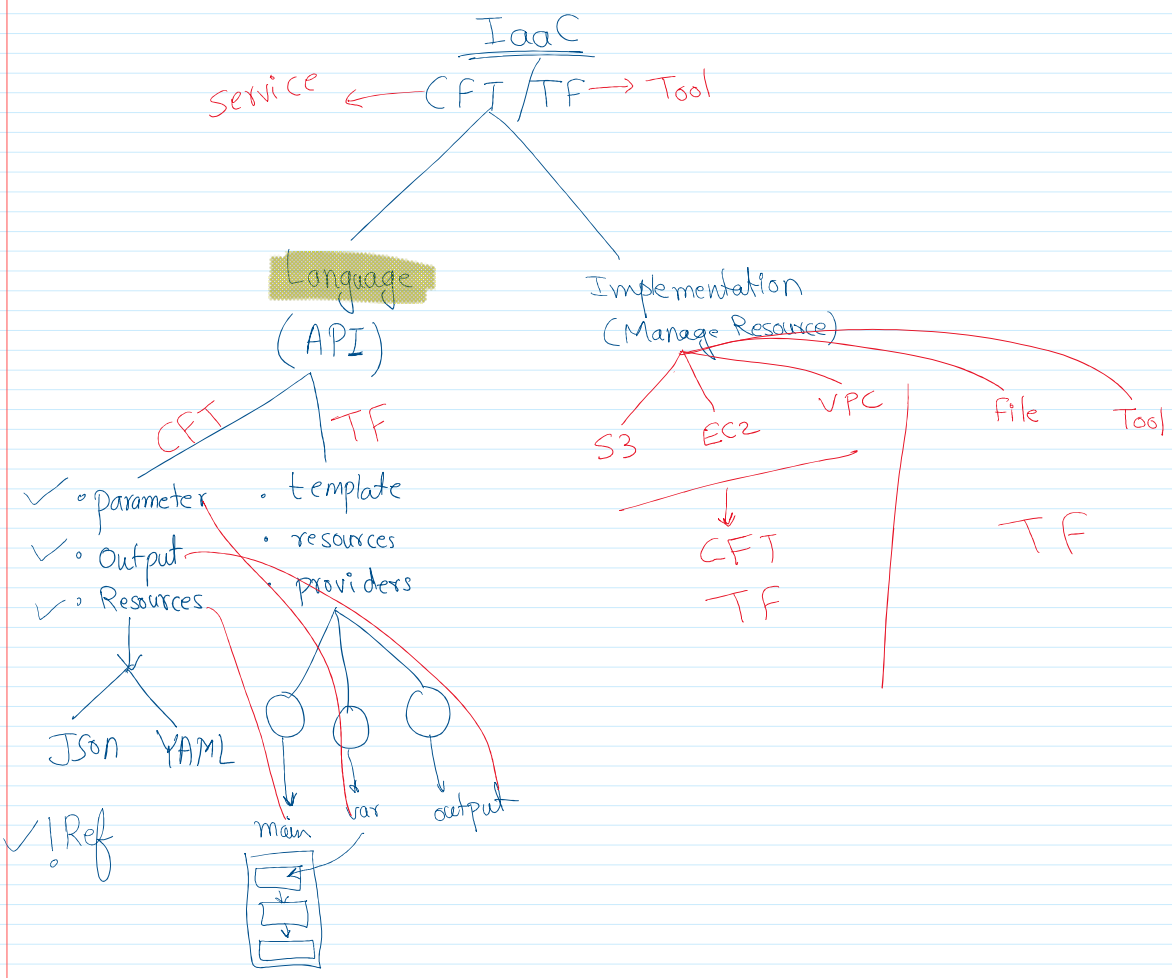

EC2
Azure
VMware
S3
AWS
GCP
oracle
IO
VPC
Cloud
Virtualization
MS
KVM
Remote Procedure Call
TF
RPC
providers
Baremetal
Plugins
Solaris
AIX
main.tf
TF State
P
B
P
Bill
tfvars
provider.tf
Resx.tf
BName
AWS Credentials
S3


Terraform Architecture
Terraform plan
Terraform apply
DevOps/Infra Engineer
Terraform manifest files (.tf)
Terraform Core
State File (.tfstate)
Providers
Azure, GCP, AWS, VMWare, etc
Provisioners
Remote-exec, Local-exec, etc
Plugins
Azure
GCP
aws
OPENSHIFT
vmware
Cloud Service Providers




```
C:\Paths\terraform151>aws configure
AWS Access Key ID [None]: AKIARKD35RHM5AKIYYW2
AWS Secret Access Key [None]: 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
Default region name [None]: us-east-1
Default output format [None]: json


C:\Paths\terraform151>terraform init

Initializing the backend...

Initializing provider plugins...
- Finding latest version of hashicorp/aws...
- Installing hashicorp/aws v5.5.0...
- Installed hashicorp/aws v5.5.0 (signed by HashiCorp)

Terraform has created a lock file .terraform.lock.hcl to record the provider
selections it made above. Include this file in your version control repository
so that Terraform can guarantee to make the same selections by default when
you run "terraform init" in the future.

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.


CHECK  AWS --> S3 --> Buckets



C:\Paths\terraform151>terraform destroy


provider "aws" {
  access_key = "AKIARKD35RHM5AKIYYW2"
  secret_key = "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"
  region = "us-east-1"
}

resource "aws_s3_bucket" "createbucket1" {
  bucket = "bkt-27jun-mujahed"
}




terraform {
  required_version = ">= 0.12.26"
}

output "greeting_msg" {
  value = "Welcome to TF with Baremetal"
}
```

```
terraform {
 required_version = ">= 1.0.0"
}

resource "local_file" "create_resume" {
 content = "This is my resume"
 filename = "abc.txt"
}
```



1) output.tf
2) variable.tf
3) main.tf

Single File

main.tf

```
resource "aws_instance" "web_server" {
  ami = "ami-053b0d53c279acc90"
  instance_type = "t2.micro"
}
```

Multiple Files:

METHOD1: ONLY INPUT

main.tf

```
resource "aws_instance" "web_server" {
  ami = var.ami_id # ami-053b0d53c279acc90
  instance_type = var.instance_type #t2.micro
}
```

variables.tf

```
variable "ami_id" {
  description = "Please Enter AMI ID for EC2 Instance creation:"
  type = string
}
variable "instance_type" {
  description = "Please Enter Instance Type for EC2 Instance creation:"
  type = string
  default = "t2.micro"
}
```

METHOD2: INPUT+**OUTPUT**

main.tf

```
resource "aws_instance" "web_server" {
  ami = var.ami_id # ami-053b0d53c279acc90
  instance_type = var.instance_type #t2.micro
}
```

variables.tf

```
variable "ami_id" {
  description = "Please Enter AMI ID for EC2 Instance creation:"
  type = string
}
variable "instance_type" {
  description = "Please Enter Instance Type for EC2 Instance creation:"
  type = string
  default = "t2.micro"
}
```

outputs.tf