

Terraform Comprehensive Cheat Sheet

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Initializing and Managing Terraform

```
# Initialize Terraform in a directory
terraform init

# Validate Terraform configuration
terraform validate

# Format Terraform files
terraform fmt

# Show execution plan
terraform plan

# Apply Terraform changes
terraform apply

# Destroy infrastructure
terraform destroy
```

Working with State

```
# List state resources
terraform state list

# Show details of a resource in state
terraform state show <resource>

# Remove a resource from state
terraform state rm <resource>

# Move resources between states
terraform state mv <source> <destination>

# Pull remote state
terraform state pull

# Push local state to remote
terraform state push
```

Variables and Outputs

```
# List output variables
terraform output

# Show value of an output variable
terraform output <variable_name>

# Define a variable in CLI
terraform apply -var="instance_type=t2.micro"

# Use a variables file
terraform apply -var-file="variables.tfvars"
```

Modules

```
# Initialize modules
terraform get

# Update modules
terraform get -update

# Define a module in configuration
module "example" {
  source = "../modules/example"
}
```

Providers and Resources

```
# Configure a provider
provider "aws" {
  region = "us-east-1"
}

# Define a resource
resource "aws_instance" "example" {
  ami           = "ami-123456"
  instance_type = "t2.micro"
}
```