



Infrastructure as Code : Terraform on Azure

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Common Infrastructure Setup

Physically setup servers

Install Os

Create Virtual machines

Set up virtual machines

Deploy the application

Maintain infrastructure (hardware,updates etc)

Infrastructure Pain..!



Cost



Complexity



Management



Maintenance



Scalability



Availability



What Cloud can solve



Scalability



Availability



Hardware Maintenance

**But still
we have
problems..**



Management



Complexity



Administration Cost

WHAT ABOUT INFRASTRUCTURE AS CODE?

```
mirror_mod = modifier_ob.  
set mirror object to mirror.  
mirror_mod.mirror_object =  
operation == "MIRROR_X":  
mirror_mod.use_x = True  
mirror_mod.use_y = False  
mirror_mod.use_z = False  
operation == "MIRROR_Y":  
mirror_mod.use_x = False  
mirror_mod.use_y = True  
mirror_mod.use_z = False  
operation == "MIRROR_Z":  
mirror_mod.use_x = False  
mirror_mod.use_y = False  
mirror_mod.use_z = True
```

```
selection at the end -add  
mirror_ob.select= 1  
modifier_ob.select=1  
context.scene.objects.active  
("Selected" + str(modifier_ob.name))  
mirror_ob.select = 0  
= bpy.context.selected_objects  
data.objects[one.name].select  
print("please select exactly one object")
```

OPERATOR CLASSES -----

```
types.Operator):  
X mirror to the selected  
object.mirror_mirror_x"  
mirror X"
```

```
context):  
context.active_object is not None
```

What is IaC

Infrastructure as Code is the management and provisioning of infrastructure through configuration files

Benefits of IaC



**VERSION
CONTROL**



**CLEAR
DOCUMENTATION**



**REPEATABLE
DEPLOYMENTS**



FAST CHANGES

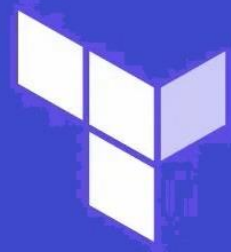


HashiCorp

Terraform

What is Terraform?

Terraform is a tool for building, changing, and versioning infrastructure safely and efficiently. Terraform can manage existing and popular service providers as well as custom in-house solutions.



HashiCorp

Terraform



Azure

Terraform + Azure

The Azure Provider can be used to configure infrastructure in [Microsoft Azure](#) using the Azure Resource Manager API's



Hands On..!

Let's build our infrastructure on Azure with Terraform!

Study Material



LINKS



BOOKS

- <https://www.terraform.io/docs/providers/azurerm/index.html>
- Book: Terraform Up & Running