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## **ASSIGNMNET 5.5B**

- To output the bucket ID using Terraform, you need to modify the configuration slightly. Here's an updated version of the Terraform configuration file (main.tf):

```
main.tf x outputs.tf x s3_data.tf x variables.tf x variables.tf x
1 terraform {
2   required_providers {
3     aws = {
4       source = "hashicorp/aws"
5       version = ">= 3.20.0"
6     }
7   }
8 }
9
10 provider "aws" {
11   region = "eu-central-1"
12 }
13
14 module "s3_data" {
15   source = "../s3_data"
16   bucket_name = var.bucket_name
17 }
18
19 output "s3_bucket_id" {
20   value = module.s3_data.s3_bucket_name
21 }
```

```
main.tf x outputs.tf x s3_data.tf x variables.tf x variables.tf x
1 output "s3_bucket_name" {
2   description = "AWS S3 bucket name"
3   value = aws_s3_bucket.s3_data.id
4 }
```

```
Open v [icon] s3_data.tf ~/data_engineering_bootcamp_2303/tasks/5_data_pipeline/day_5_laC/exercise4/s3_data Save [icon] [icon] [icon] [icon]
main.tf x outputs.tf x s3_data.tf x variables.tf x variables.tf x
1 resource "aws_s3_bucket" "s3_data" {
2   bucket = var.bucket_name
3 }
4 resource "aws_s3_object" "folder" {
5   bucket = "${aws_s3_bucket.s3_data.id}"
6   key = "day2/laC/"
7   source = "/dev/null"
8 }
9
```

```
Open v [icon] variables.tf ~/data_engineering_bootcamp_2303/tasks/5_data_pipeline/day_5_laC/exercise4 Save [icon] [icon] [icon] [icon]
main.tf x outputs.tf x s3_data.tf x variables.tf x variables.tf x
1 variable "bucket_name" {
2   description = "AWS S3 bucket name"
3   default = "talha-khan-bucket"
4 }
5
```

```
Open v [icon] *variables.tf ~/data_engineering_bootcamp_2303/tasks/5_data_pipeline/day_5_laC/exercise4 Save [icon] [icon] [icon] [icon]
main.tf x outputs.tf x s3_data.tf x variables.tf x *variables.tf x
1 variable "region" {
2   description = "AWS Region"
3   default = "eu-central-1"
4 }
5
6 # S3
7 variable "bucket_name" {
8   description = "AWS S3 bucket name"
9   default = "talha-khan-bucket"
10 }
11
```

```

talhakh@all-MS-7D35: ~/data_engineering_bootcamp_2303/tasks/5_data_pipelines/day_5_iaC/exercise4
(base) talhakh@all-MS-7D35: ~/data_engineering_bootcamp_2303/tasks/5_data_pipelines/day_5_iaC/exercise4$ terraform init
Command 'terraform' not found, did you mean:
  command 'terraform' from snap terraform (1.4.5)
See 'snap info <snapname>' for additional versions.
(base) talhakh@all-MS-7D35: ~/data_engineering_bootcamp_2303/tasks/5_data_pipelines/day_5_iaC/exercise4$ terraform init

Initializing the backend...
Initializing modules...
- s3_data in s3_data

Initializing provider plugins...
- Finding hashicorp/aws versions matching ">= 3.20.0"...
- Installing hashicorp/aws v4.67.0...
- Installed hashicorp/aws v4.67.0 (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.
(base) talhakh@all-MS-7D35: ~/data_engineering_bootcamp_2303/tasks/5_data_pipelines/day_5_iaC/exercise4$ terraform apply
Terraform used the selected providers to generate the following execution plan

```

```

talhakh@all-MS-7D35: ~/data_engineering_bootcamp_2303/tasks/5_data_pipelines/day_5_iaC/exercise4
(base) talhakh@all-MS-7D35: ~/data_engineering_bootcamp_2303/tasks/5_data_pipelines/day_5_iaC/exercise4$ 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:

# module.s3_data.aws_s3_bucket.s3_data will be created
+ resource "aws_s3_bucket" "s3_data" {
  + acceleration_status      = (known after apply)
  + acl                      = (known after apply)
  + arn                     = (known after apply)
  + bucket                  = "talha-khan-bucket"
  + bucket_domain_name      = (known after apply)
  + bucket_prefix           = (known after apply)
  + bucket_regional_domain_name = (known after apply)
  + force_destroy           = false
  + hosted_zone_id         = (known after apply)
  + id                     = (known after apply)
  + object_lock_enabled     = (known after apply)
  + policy                 = (known after apply)
  + region                 = (known after apply)
  + request_payer           = (known after apply)
  + tags_all               = (known after apply)
  + website_domain         = (known after apply)
  + website_endpoint       = (known after apply)
}

# module.s3_data.aws_s3_object.folder will be created
+ resource "aws_s3_object" "folder" {
  + acl          = "private"
  + bucket       = (known after apply)
  + bucket_key_enabled = (known after apply)
  + content_type = (known after apply)
  + etag        = (known after apply)
  + force_destroy = false
  + id          = (known after apply)
  + key         = "day2/iaC/"
  + kms_key_id  = (known after apply)
  + server_side_encryption = (known after apply)
  + source      = "/dev/null"
  + storage_class = (known after apply)
  + tags_all    = (known after apply)
  + version_id  = (known after apply)
}

Plan: 2 to add, 0 to change, 0 to destroy.

Changes to Outputs:
  + s3_bucket_id = (known after apply)

Do you want to perform these actions?
  Terraform will perform the actions described above.
  Only 'yes' will be accepted to approve.

Enter a value: yes

```

```

Enter a value: yes

module.s3_data.aws_s3_bucket.s3_data: Creating...
module.s3_data.aws_s3_bucket.s3_data: Creation complete after 4s [id=talha-khan-bucket]
module.s3_data.aws_s3_object.folder: Creating...
module.s3_data.aws_s3_object.folder: Creation complete after 0s [id=day2/iaC/]

Apply complete! Resources: 2 added, 0 changed, 0 destroyed.

Outputs:
(base) talhakh@all-MS-7D35: ~/data_engineering_bootcamp_2303/tasks/5_data_pipelines/day_5_iaC/exercise4$

```

← →

s3.console.aws.amazon.com/s3/buckets/talha-khan-bucket?region=eu-central-1&tab=objects

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Feature spotlight

AWS Marketplace for S3

Amazon S3 > Buckets > talha-khan-bucket

talha-khan-bucket

Info

Objects Properties Permissions Metrics Management Access Points

Objects (1)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 Inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

↻

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Create folder

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Find objects by prefix

< 1 >

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	day2/	Folder	-	-	-

CloudShell Feedback Language

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← →

s3.console.aws.amazon.com/s3/buckets/talha-khan-bucket?region=eu-central-1&prefix=day2/&showversions=false

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day2/

Copy S3 URI

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< 1 >

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	laC/	Folder	-	-	-

CloudShell Feedback Language

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