🛠️ Step-by-Step: Importing an Existing AWS EC2 Instance

1. Write the resource block

You must define a Terraform block for the resource you're importing, even if it's minimal.

```
# main.tf
resource "aws_instance" "example" {
  # Fill in fields *after* import
}
```

---

2. Find the resource ID

For EC2, get the instance ID from AWS Console or CLI:

```
aws ec2 describe-instances --query
"Reservations[*].Instances[*].InstanceId" --output text
```

Example output:

```
i-0123456789abcdef0
```

---

3. Run `terraform import`

```
terraform import aws_instance.example i-0123456789abcdef0
```

Format:

```
terraform import <RESOURCE_TYPE.RESOURCE_NAME> <RESOURCE_ID>
```

4. Run `terraform plan` and sync configuration

Now Terraform knows about the instance, but the `.tf` code may not yet match the actual resource. Run:

```
terraform plan
```

Terraform will show the diff. You must now **manually update `main.tf`** to match the actual configuration (AMI, tags, instance type, etc.). You can use `terraform show` or the AWS Console to help.

🔁 Common Resource IDs by Service

AWS Resource Type	Terraform Resource ID Format
EC2 Instance	`i-xxxxxxxxxxxxxxxxx`
S3 Bucket	`bucket-name`
Security Group	`sg-xxxxxxxxxxxxxxxxx`
IAM Role	`role-name`
RDS Instance	`db-instance-id`
VPC	`vpc-xxxxxxxxxxxxxxxxx`