

Best Practices

- Remote storage and locking, solves the problem of collaboration.
- Any problems we are left with?
 - How about Isolation?

Achieving Isolation

- What we have learnt so far. Define all your infra in one terraform file.



```
[➔ ~ tree my-infrastructure
my-infrastructure
├── main.tf
├── outputs.tf
├── variables.tf
└── vars.tfvars

0 directories, 4 files
➔ ~
```

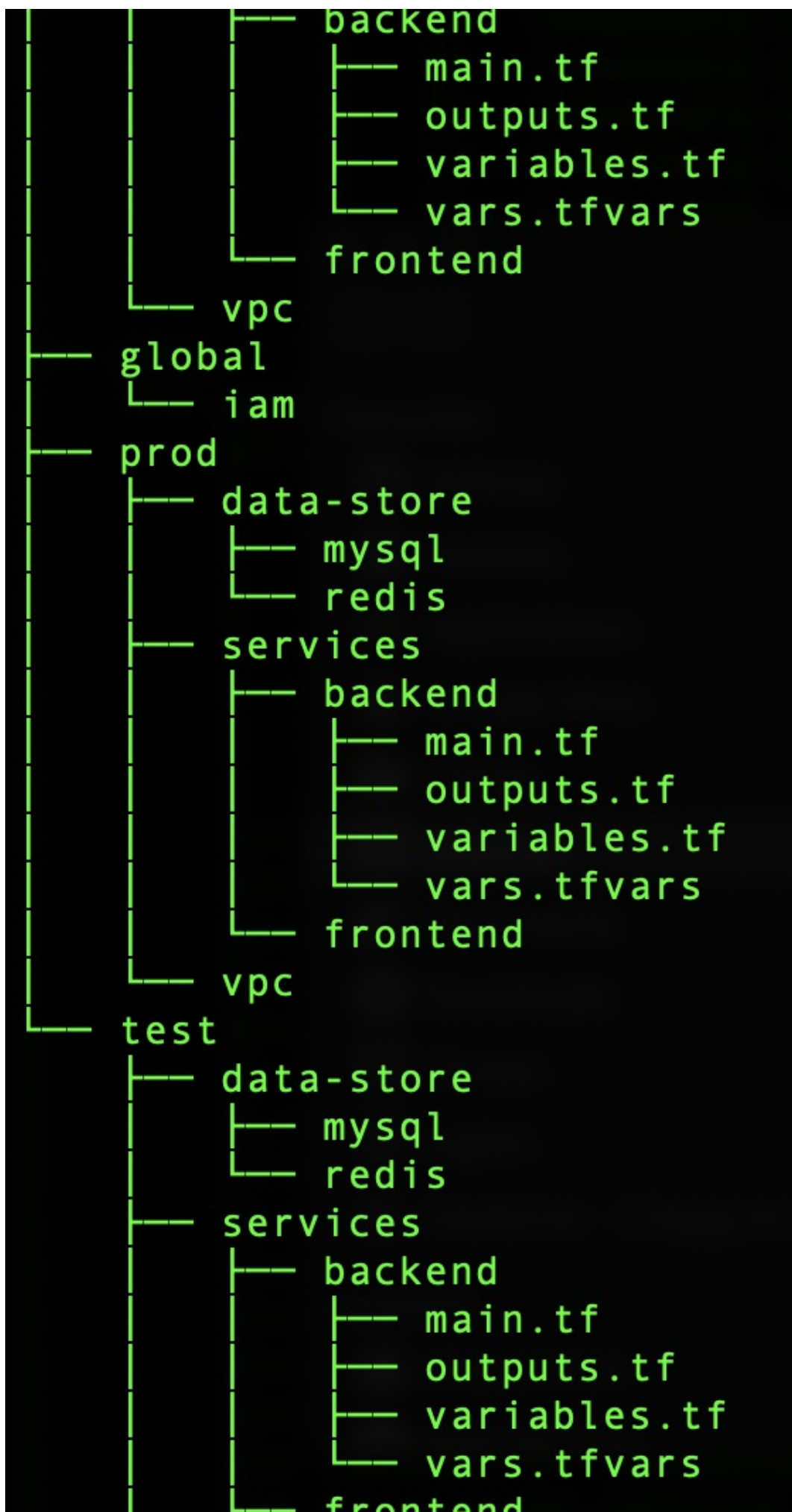
- What problems do you see?
 - Lack of using locking, might corrupt my entire state file
 - What are the chances of breaking production env while deploying something to test env?
 - The whole point of having separate environments is to isolate them from each other.

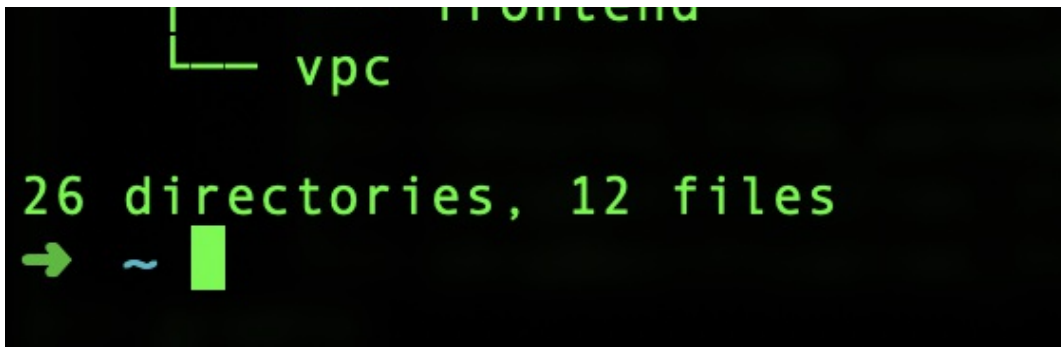
```
[➔ ~ tree my-infrastructure
my-infrastructure
├── dev
│   ├── main.tf
│   ├── outputs.tf
│   ├── variables.tf
│   └── vars.tfvars
├── prod
│   ├── main.tf
│   ├── outputs.tf
│   ├── variables.tf
│   └── vars.tfvars
└── test
    ├── main.tf
    ├── outputs.tf
    ├── variables.tf
    └── vars.tfvars

3 directories, 12 files
➔ ~ █
```

- Is the above better?
- Will there be separate state files for each environment?
- Any problems you see?
 - Few things must be *global* like IAM roles.

```
[➔ ~ tree my-infrastructure
my-infrastructure
├── dev
│   ├── data-store
│   │   ├── mysql
│   │   └── redis
│   └── services
```





- Any problems you see?
 - Breaking DRY principle

Read-only State

- How would you know required information of resources created as part of a different Terraform configuration (state file)?
- Or, how can you create dependent resources between two different state files?

HandsOn:

Let's look at an example of Read-only state

Refer 04-State/02-Remote-State-Data-Source

- Key takeaways:
 - You need to have a DynamoDB table and S3 pre-created
 - tfstate file gets created in S3 bucket. Let's verify.

Let's destroy all resources including the s3 bucket and DynamoDB table