Exercise Serverless Architecture walkthrough

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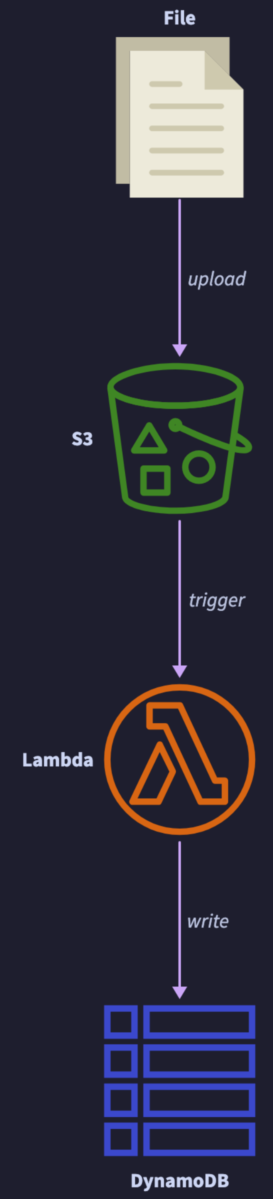
1. Deploy existing application
2. Inspect the architecture in console
3. Test manually
4. Update: Log bucket name also
5. Test manually
6. Destroy infrastructure

Architecture

- S3 bucket event `EventType_OBJECT_CREATED` is added as an event trigger
- Grants are used to give the function access to S3 and DynamoDB



1 - Deploy Infrastructure

1. Change directory to `~/go-on-aws-source/architectures/serverless/`
2. Inspect available tasks

```
task -l
```

3. Build app before deployment

```
task app:build
```

4. Deploy infrastructure

```
task infra:deploy
```

2 - Inspect the architecture

5. Check deployment status

```
cdkstat
```

6. Check resources

```
cdkstat dsl
```

7. Explore the architecture in the AWS console

- Bucket, note the name starting with `dsl-incoming`
- Lambda, why are there three new functions?
- DynamoDB

3 - Test manually

8. See DynamoDB table

There should be no items in the table

9. Upload a file to the bucket

10. See DynamoDB table

There should be one item in the table

4 - Update: Log bucket name also

11. Create a function ExtractBucket in `eventutils.go`
12. Use it in `main.go` create a variabes s3BucketName
13. Change `dsl.PutItem` with a new parameter `s3BucketName`
14. Update `func PutItem` in `table.go`

- add new parameter "s3BucketName"
- write parameter to DynamoDB

5 - Test manually

15.Deploy application

```
task app:fastdeploy
```

16. Empty DynamoDB table

There should be no items in the table

9. Upload a file to the bucket

10. See DynamoDB table

There should be one item *with bucketname* in the table

6 - Destroy infrastructure

You have to empty the bucket before destroying the infrastructure

11. Delete all files from the incoming bucket
12. Destroy infrastructure

```
task infra:destroy
```

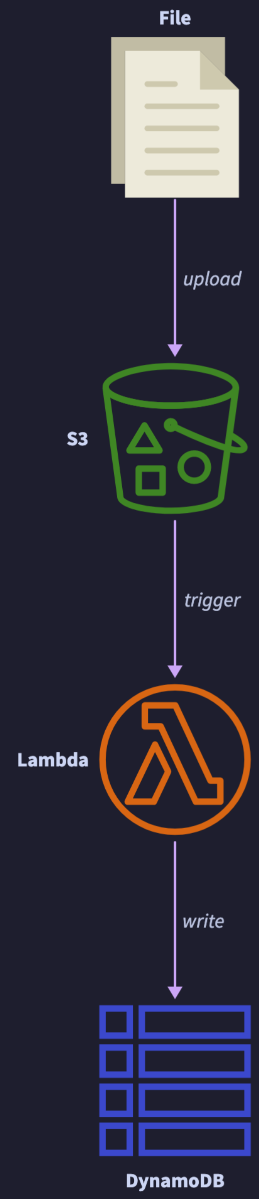
Quiz

Now you have destroyed the infrastructure, which resources are still available?

WrapUp

- With fastdeploy you enable fast development cycles
- Manual testing is easy, but takes time

=> ...What`s missing is the automated testing


File
upload
S3
trigger
Lambda
write
DynamoDB