Functionless batch processing with EB

1. **About me**
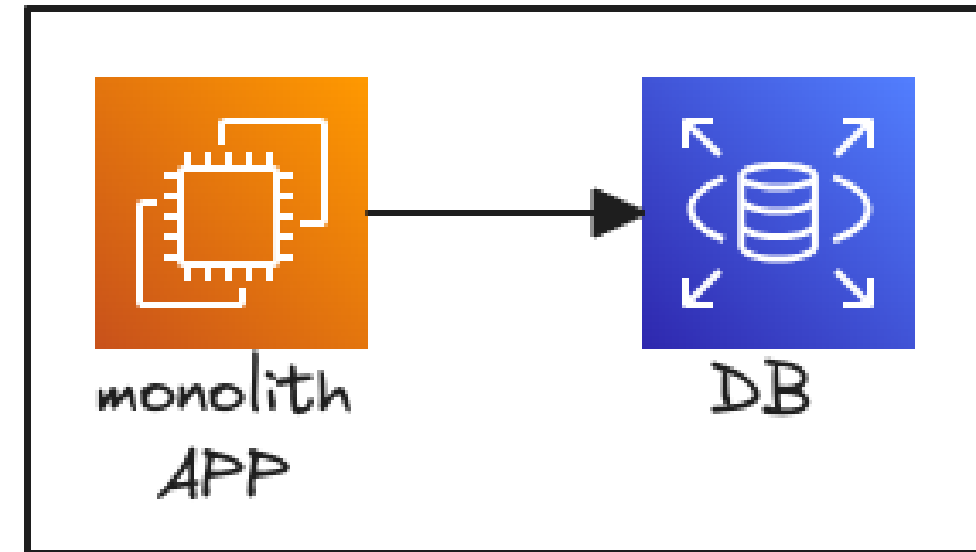2. **Situation**
3. **What we did**
4. **What we learnt**

About me

- I am Carlos Angulo
- I work at Ohpen as a Platform Engineer
- I have more than 7 years of experience
- You can find me on LinkedIn or GitHub

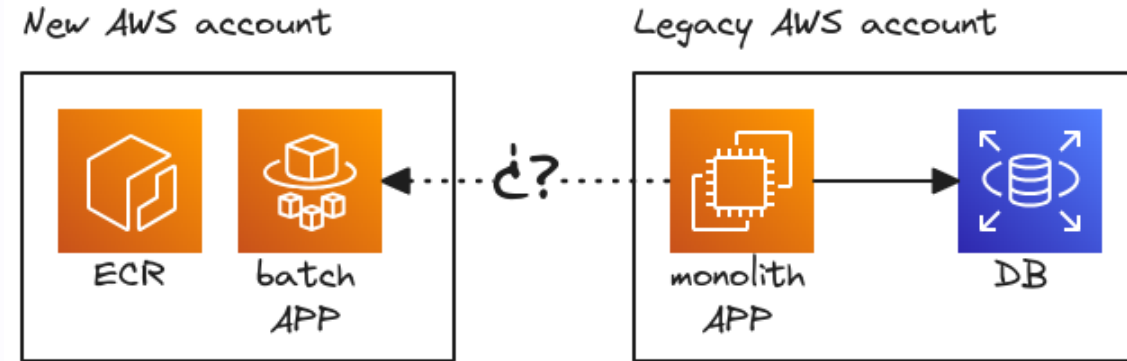# Situation

We have a legacy monolith app running in EC2 + RDS

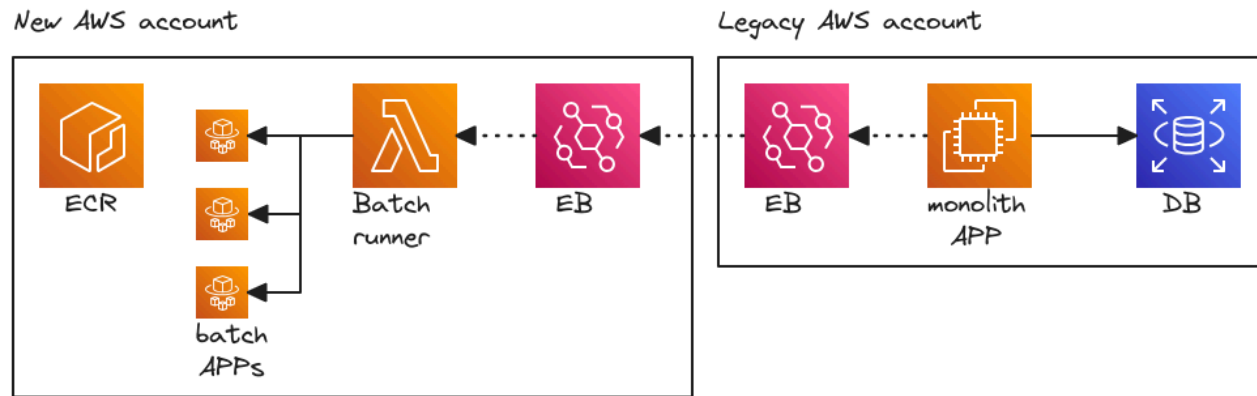Legacy AWS account

monolith
APP

DB

Dockerization

We dockerize some batch apps in a new account

How would you trigger those apps from the monolith?🤔

What we did

We decide to trigger batches based on events

```csharp
public async Task RunBatch(EventData detail, string traceId)
{
    var ecsConfig = await _configProvider.GetConfig(detail, traceId);
    var request = new RunTaskRequest
    {
        Cluster = ecsConfig.ClusterName,
        TaskDefinition = ecsConfig.TaskDefinition,
        NetworkConfiguration = new NetworkConfiguration
        {
            ... // omitted for brevity
        },
        Overrides = new TaskOverride
        {
            ContainerOverrides = new List<ContainerOverride>
            {
                new()
                {
                    Name = ecsConfig.TaskDefinition,
                    Command = ecsConfig.CommandParams,
                    Environment = ecsConfig.EnvironmentVariables
                        .Select(source => new EcsKeyValuePair() { Name = source.Key, Value = source.Value })
                        .ToList()
                }
            }
        }
    };

    var response = await _ecsClient.RunTaskAsync(request);
}
```

```
 1   execute_ecs_tasks = {
 2     effect = "Allow"
 3     actions = [
 4       "ecs:RunTask",
 5       "iam:PassRole"
 6     ]
 7     resources  = ["batch-apps-*"]
 8     principals = []
 9   }
10
```
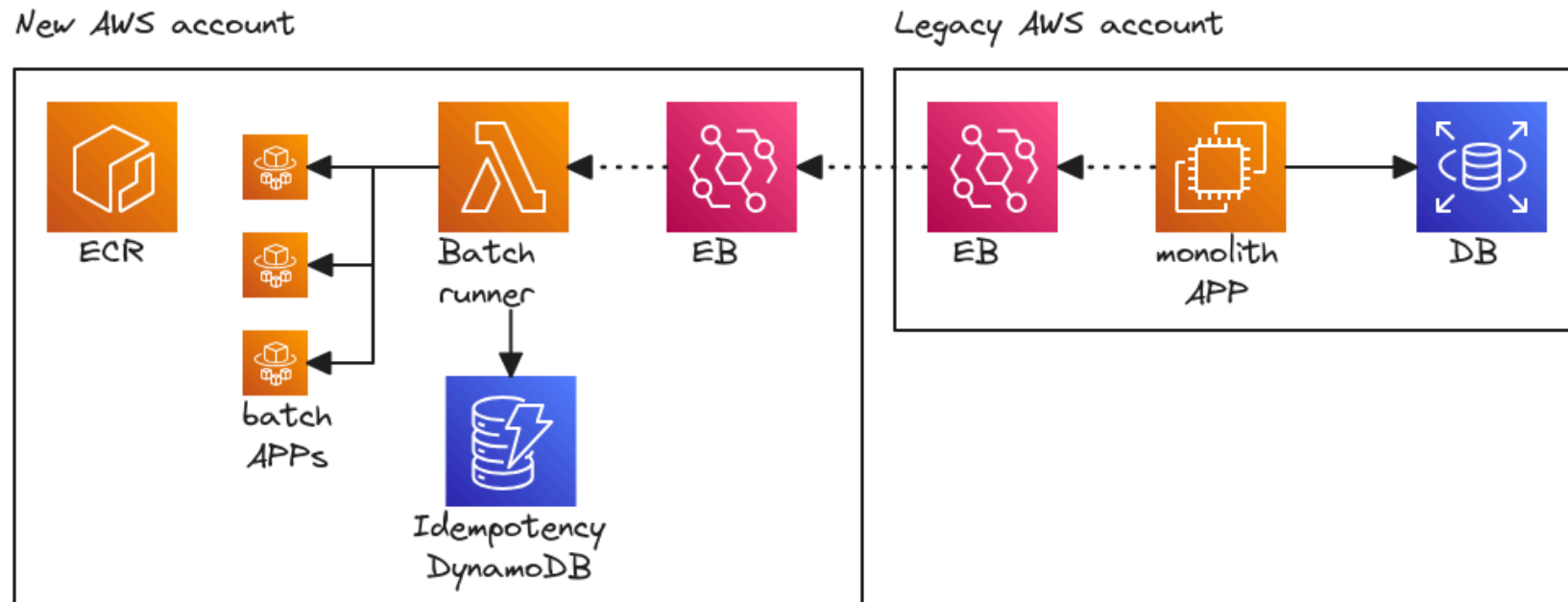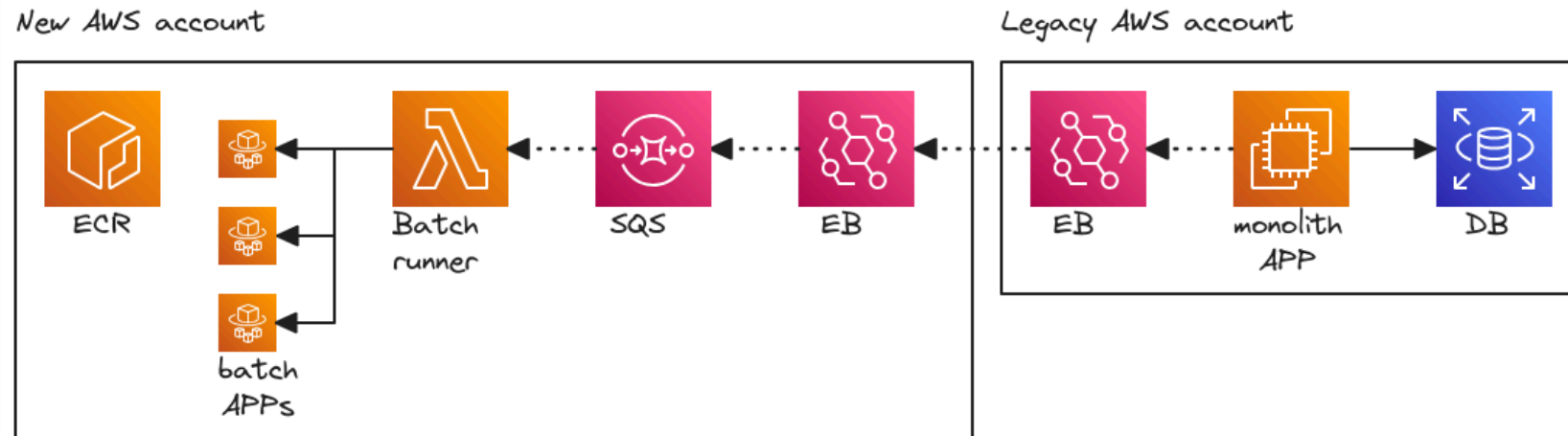
wait

What about duplicated events?
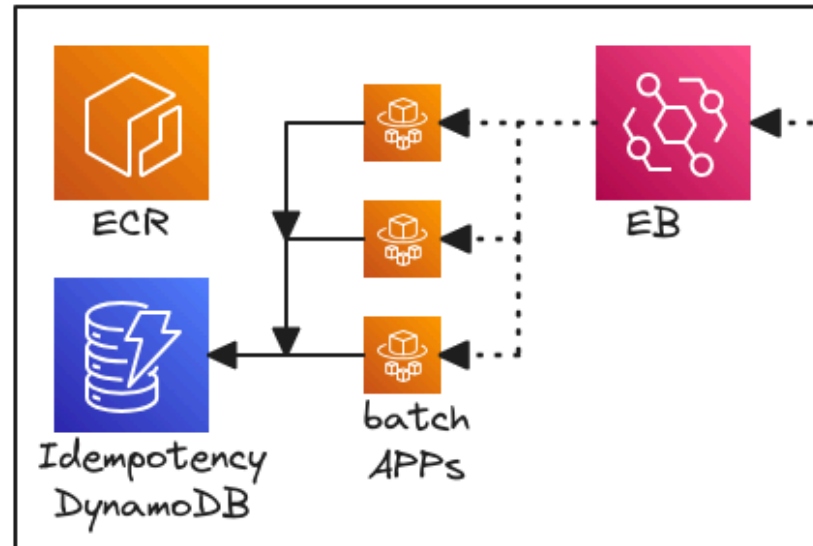
Idempotency with DynamoDB

New AWS account — ECR, batch APPs, Batch runner, Idempotency DynamoDB, EB

Legacy AWS account — EB, monolith APP, DB

Idempotency
with SQS

New AWS account

ECR · batch APPs · Batch runner · SQS · EB

Legacy AWS account

EB · monolith APP · DB

simpler solution?
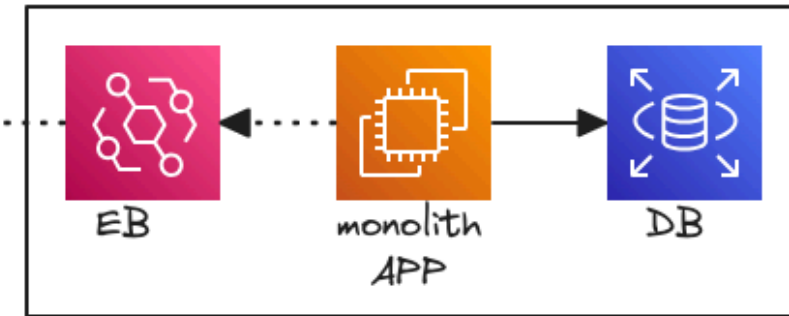
What we learn

- lambda (+ SQS) offers more control
- EB + ECS is simpler but more expensive and adds logic to batch apps

Questions?