

Clusters

`Cluster` allows you to group (or cluster) nodes in an isolated group.

Basic

`Cluster` represents a local cluster context.

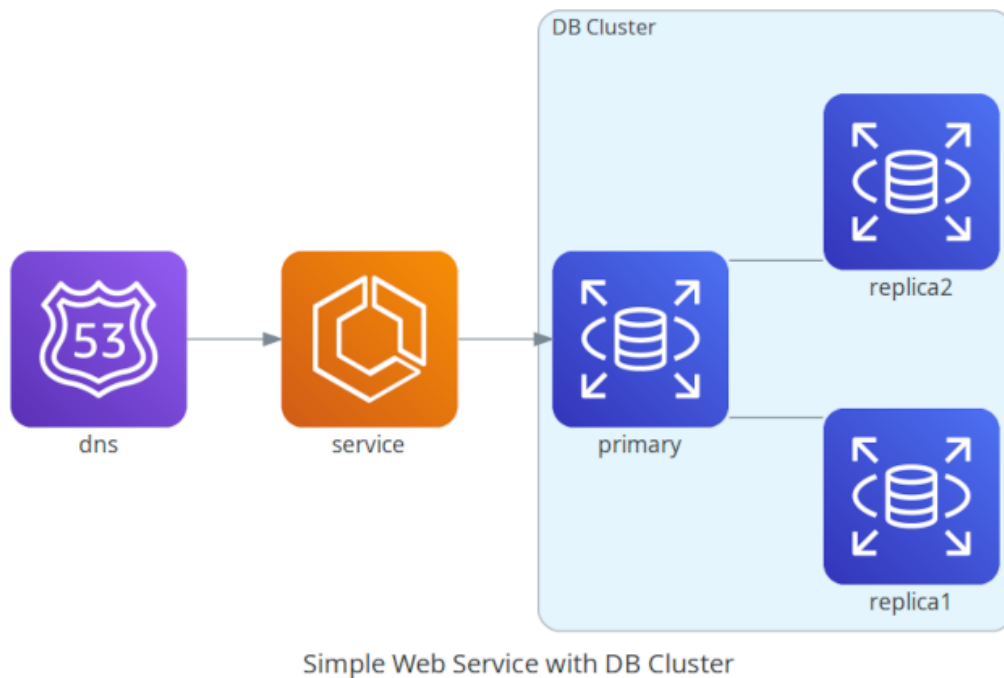
You can create a cluster context using the `Cluster` class. You can also connect the nodes in a cluster to other nodes outside a cluster.

```
from diagrams import Cluster, Diagram
from diagrams.aws.compute import ECS
from diagrams.aws.database import RDS
from diagrams.aws.network import Route53

with Diagram("Simple Web Service with DB Cluster", show=False):
    dns = Route53("dns")
    web = ECS("service")

    with Cluster("DB Cluster"):
        db_primary = RDS("primary")
        db_primary - [RDS("replica1"),
                     RDS("replica2")]

    dns >> web >> db_primary
```



Nested Clusters

Nested clustering is also possible:

```
from diagrams import Cluster, Diagram
from diagrams.aws.compute import ECS, EKS, Lambda
from diagrams.aws.database import Redshift
from diagrams.aws.integration import SQS
from diagrams.aws.storage import S3
```

```
with Diagram("Event Processing", show=False):
    source = EKS("k8s source")
```

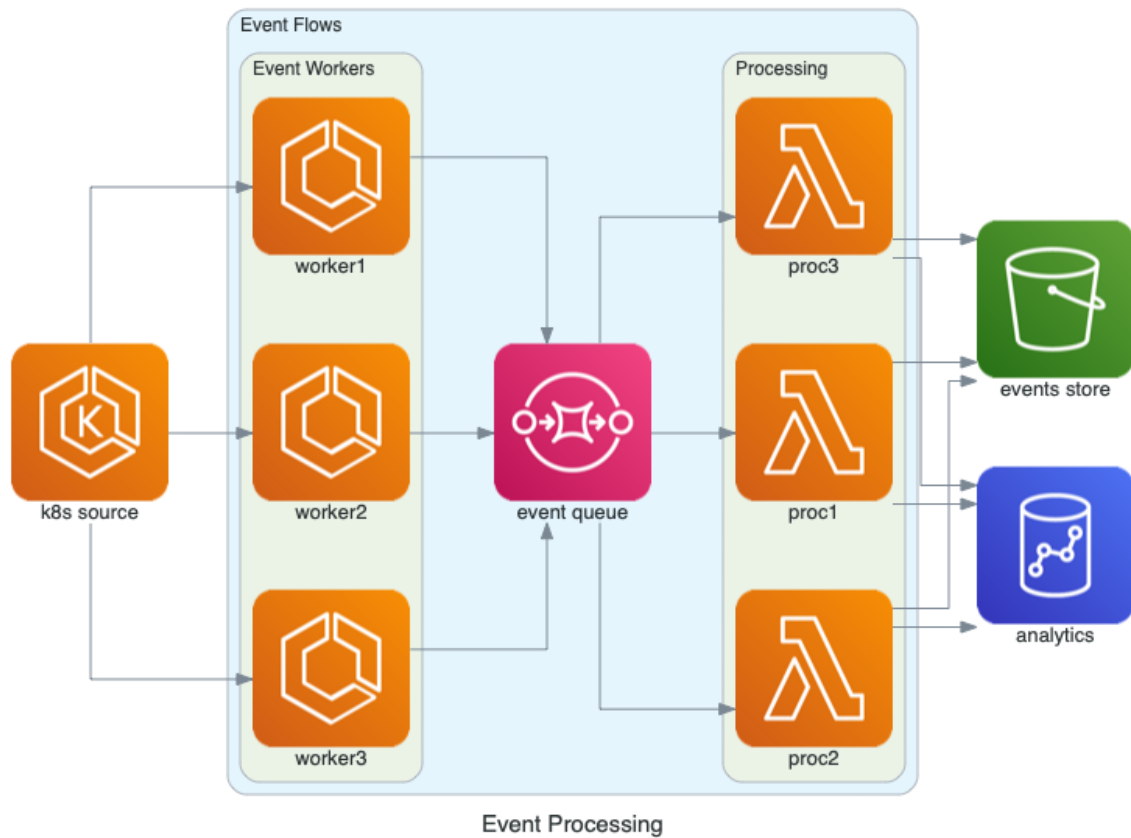
```
    with Cluster("Event Flows"):
        with Cluster("Event Workers"):
            workers = [ECS("worker1"),
                      ECS("worker2"),
                      ECS("worker3")]
```

```
    queue = SQS("event queue")
```

```
    with Cluster("Processing"):
        handlers = [Lambda("proc1"),
                   Lambda("proc2"),
                   Lambda("proc3")]
```

```
    store = S3("events store")
    dw = Redshift("analytics")
```

```
source >> workers >> queue >> handlers  
handlers >> store  
handlers >> dw
```



There is no depth limit to nesting. Feel free to create nested clusters as deep as you want.

Last updated on 4/13/2024

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