Fragments

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With Compose, you can use built-in <u>YAML</u> features to make your Compose file neater and more efficient. Anchors and aliases let you create re-usable blocks. This is useful if you start to find common configurations that span multiple services. Having re-usable blocks minimizes potential mistakes.

Anchors are created using the & sign. The sign is followed by an alias name. You can use this alias with the * sign later to reference the value following the anchor. Make sure there is no space between the & and the * characters and the following alias name.

You can use more than one anchor and alias in a single Compose file.

Example 1

```
volumes:
  db-data: &default-volume
    driver: default
  metrics: *default-volume
```

In the example above, a default-volume anchor is created based on the db-data volume. It is later reused by the alias *default-volume to define the metrics volume.

Anchor resolution takes place before variables interpolation, so variables can't be used to set anchors or aliases.

Example 2

```
services:
first:
  image: my-image:latest
  environment: &env
    - CONFIG_KEY
    - EXAMPLE_KEY
    - DEMO_VAR
second:
  image: another-image:latest
  environment: *env
```

If you have an anchor that you want to use in more than one service, use it in conjunction with an extension to make your Compose file easier to maintain.

Example 3

You may want to partially override values. Compose follows the rule outlined by YAML merge type.

In the following example, metrics volume specification uses alias to avoid repetition but overrides name attribute:

```
services:
backend:
  image: example/database
  volumes:
    - db-data
    - metrics
volumes:
  db-data: &default-volume
    driver: default
    name: "data"
metrics:
    <<: *default-volume
    name: "metrics"</pre>
```

Example 4

You can also extend the anchor to add additional values.

```
services:
  first:
    image: my-image:latest
    environment: &env
     FOO: BAR
     ZOT: QUIX
second:
    image: another-image:latest
    environment:
     <<: *env
     YET_ANOTHER: VARIABLE</pre>
```

Note

YAML merge only applies to mappings, and can't be used with sequences.

In example above, the environment variables must be declared using the FOO: BAR mapping syntax, while the sequence syntax - FOO=BAR is only valid when no fragments are involved.