**LABORATÓRIO DE INSTRUMENTAÇÃO
E FÍSICA EXPERIMENTAL DE PARTÍCULAS**
partículas e tecnologia

Developing a distributed and fault tolerant Dataverse architecture.

Our challenges.

- Dataverse Service for National Scientific Computation Foundation;
- Fault tolerant service;
- No single point of failure;
- High availabilty.

Our issues.

- No recipe to elaborate on;
- Package installations not flexible enough;
- Expandable storage – local/S3/swift/minio;
- Distributed database;
- SOLR index – standalone vs distributed;
- Server role shifting.

Our drawbacks.

- Trial and error advanced installation;
- Existing docker recipe not what we intended;
- Storage direct upload/download issues with S3/swift;
- Postgres documentation lacking solutions;
- Distributed SOLR index was cumbersome;
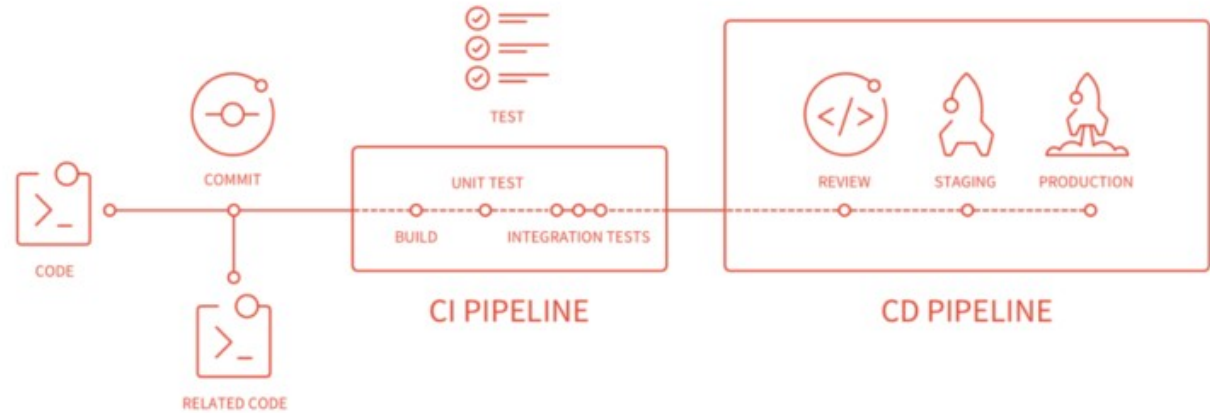- Server role shifting demands intervention.

Our solutions.

- Created our own recipe / pipeline;
- Docker containers;
- Minio;
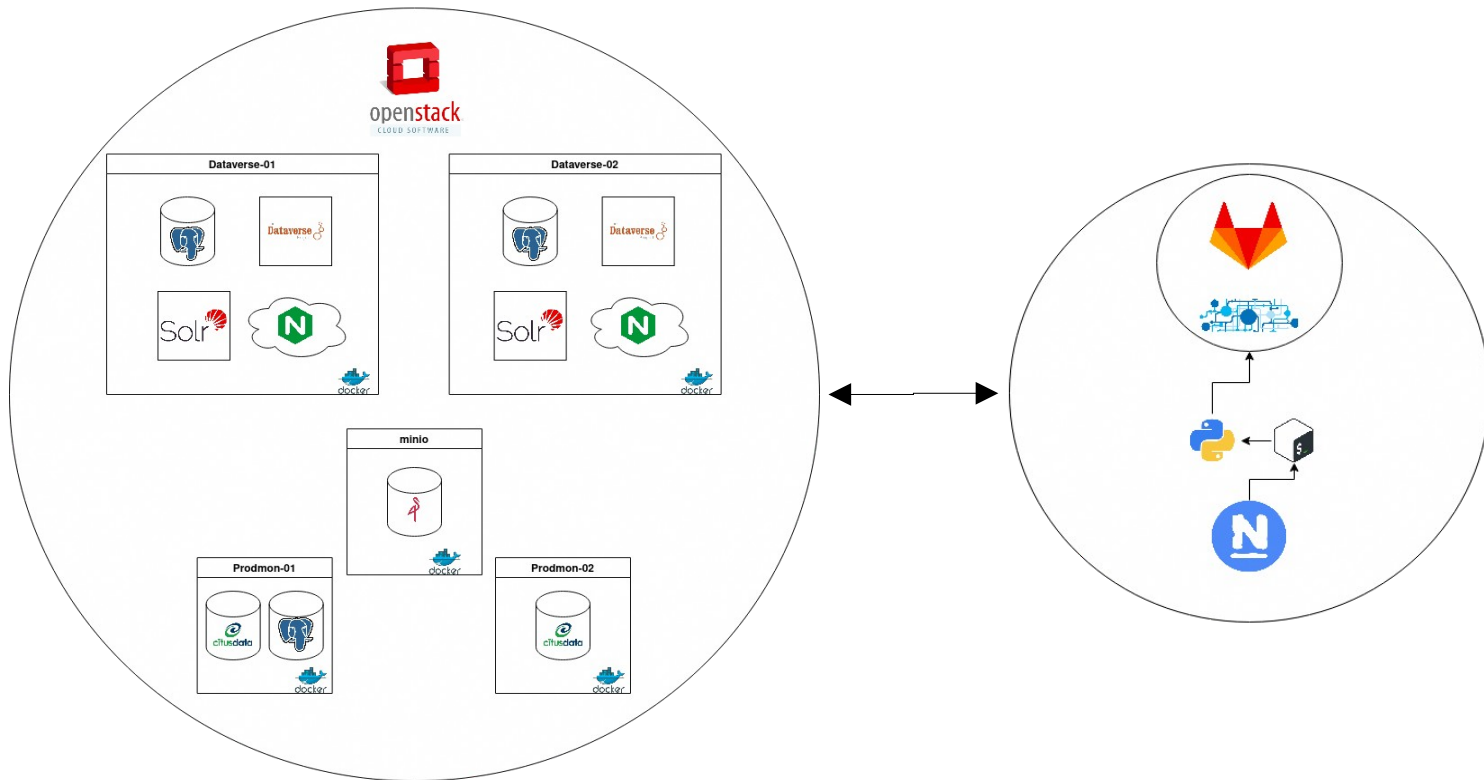- pg_auto_failover;
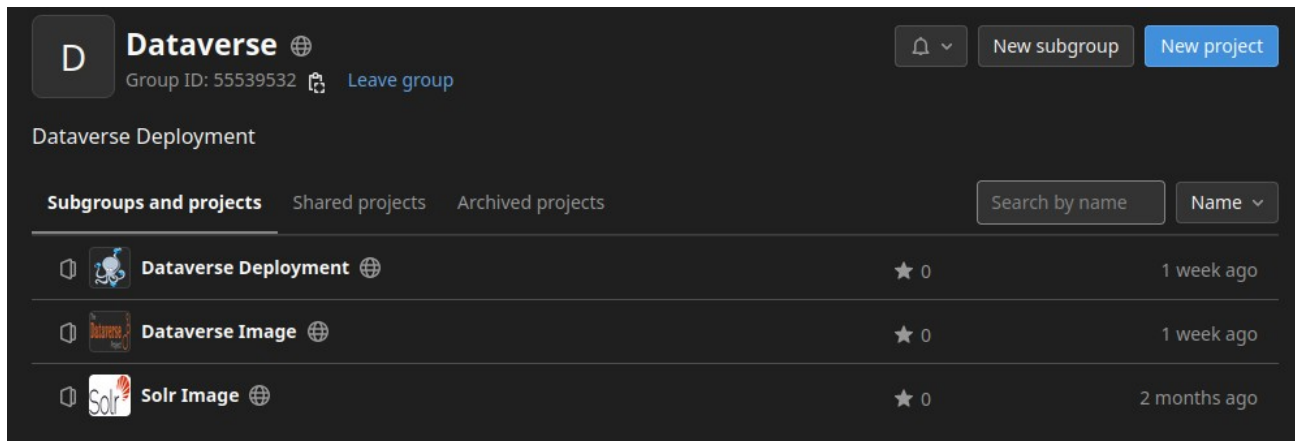- Standalone SOLR
- Keepalived/VIP.

The gitops approach

Dataverse Distributed
Architecture

Our one stop shop solution

https://gitlab.com/lip-computing/dataverse

Thanks

Any questions?
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