



OpenShift Github Training *Advanced*

Trainer: Alexander Kolin

The World's Local Training Provider

Course objectives

Course objectives

Day 1

- Openshift Architecture
- Network
- Storage
- CRD & Operators
- Kustomize

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Day 2

- Github Actions
- Pod Security
- Storage management
- Advanced Management
- DR & HA Strategies

Course objectives

Day 1

- Openshift Architecture
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- CRD & Operators
- Kustomize

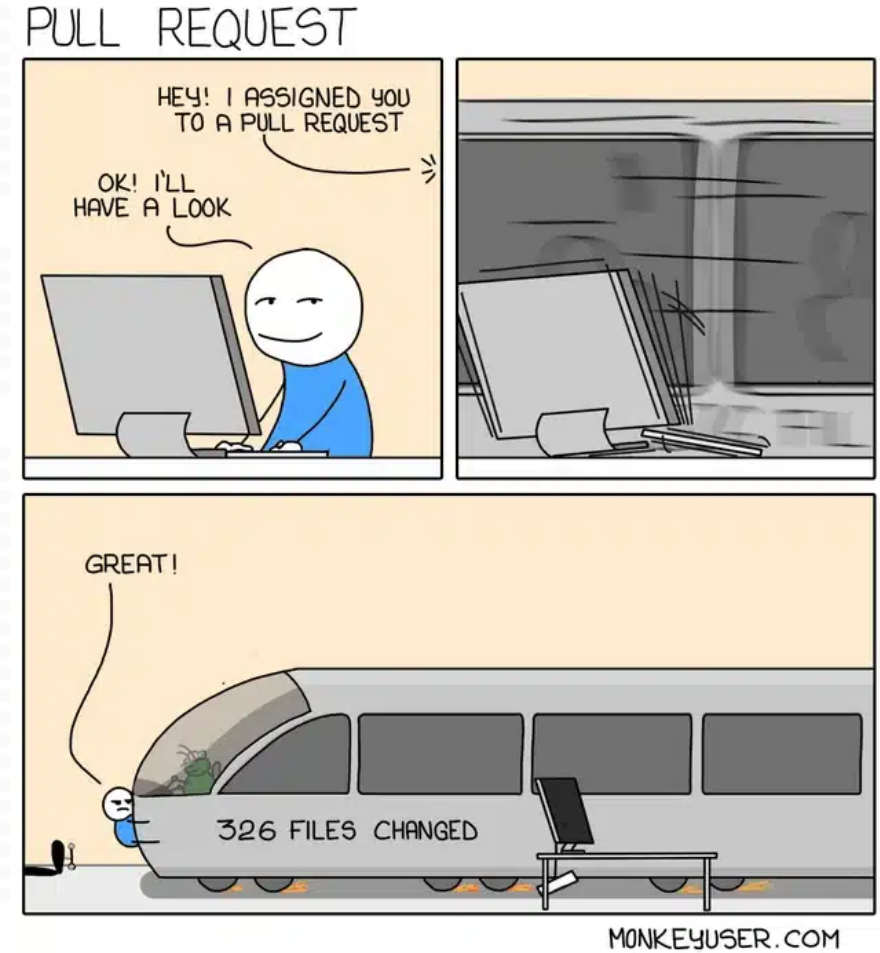
Day 2

- Github Actions
- Pod Security
- Storage management
- Advanced Management
- DR & HA Strategies

Day 3

- Development with GIT
- App & Infrastructure Security
- Monitoring
- DR & HA Velero
- Wrap Up & Questions
- Optional: Setup selfhosted Github Runner

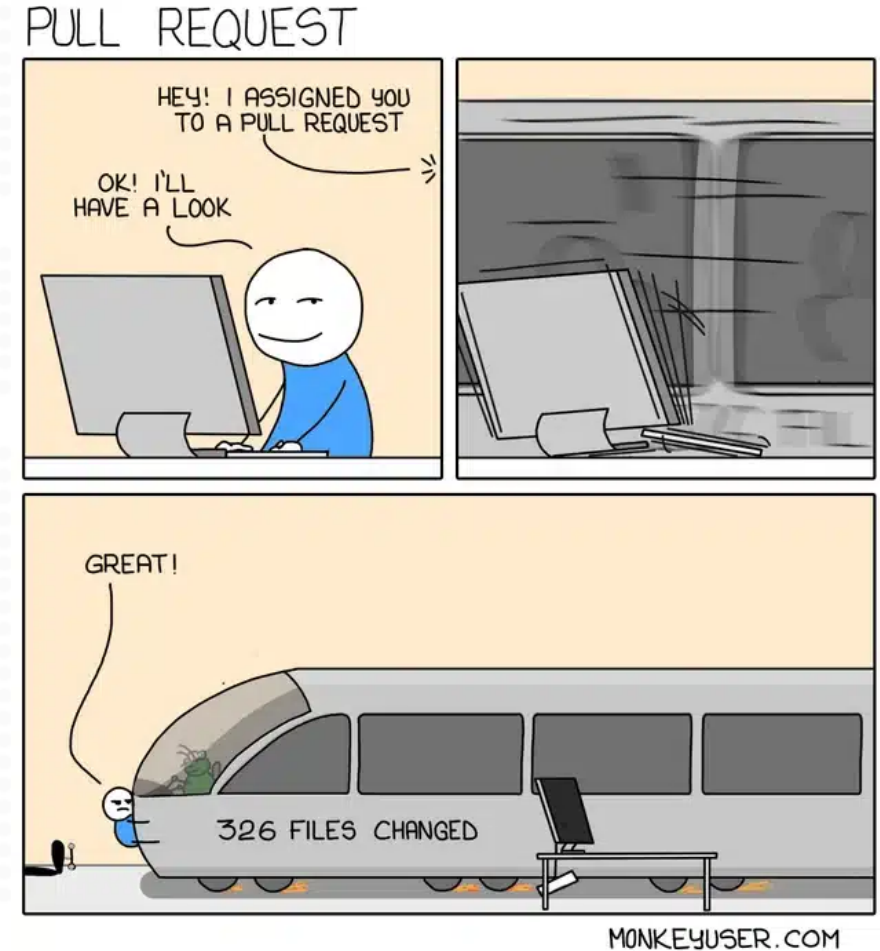
Showcase



(c) <https://www.gitkraken.com/blog/github-pr-management-gitkraken-client>

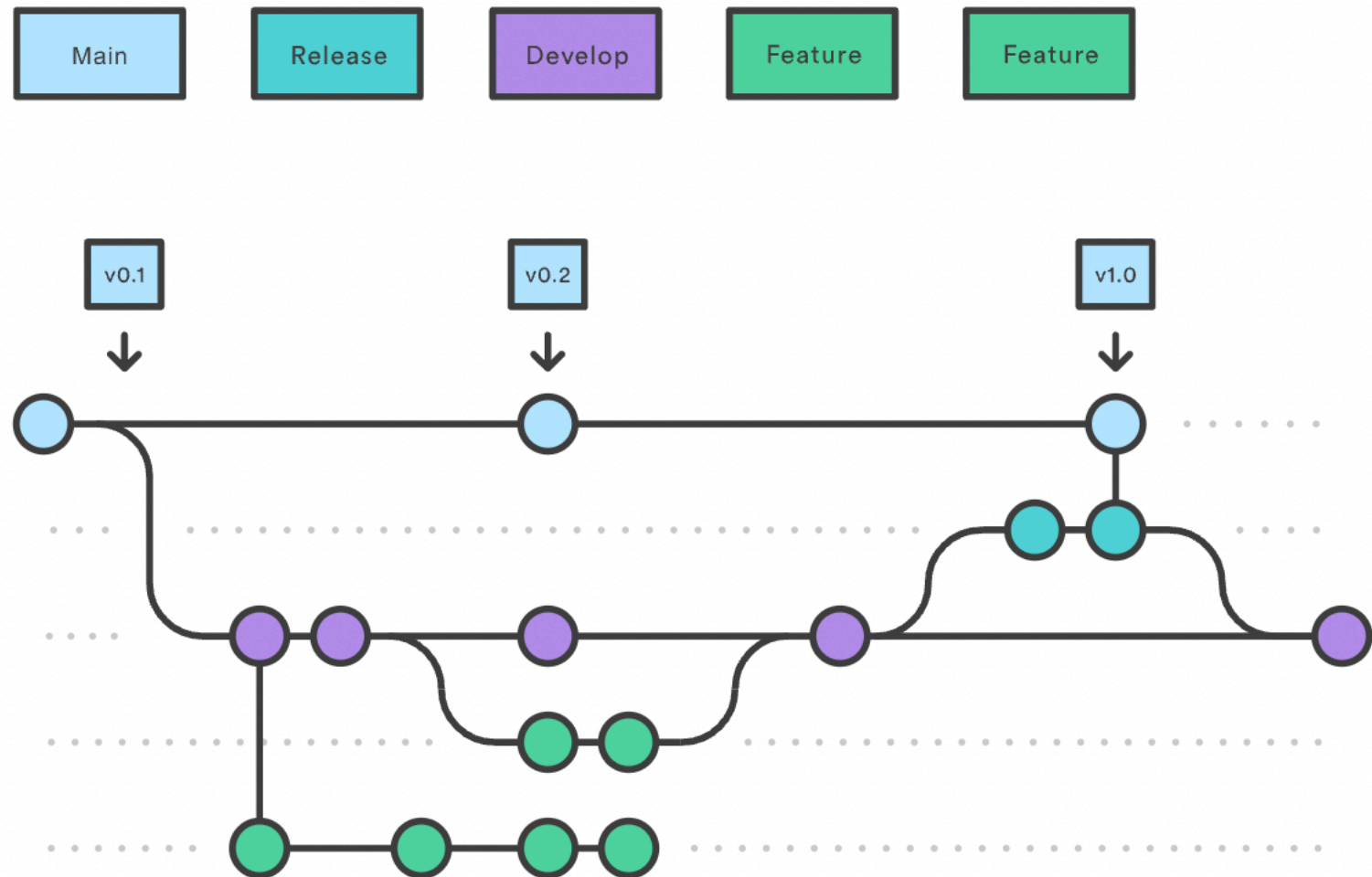
Showcase

- Development & collaborating in Teams with Github



(c) <https://www.gitkraken.com/blog/github-pr-management-gitkraken-client>

Showcase



<https://www.atlassian.com/git/tutorials/comparing-workflows/gitflow-workflow>

Security

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git clone https://github.com/kolinrr/openshift-adv.git
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- Deploy DB on different Namespace/Server
- Restrict user rights to different namespaces
- Add Networkpolicy to the Database

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apiVersion: rbac.authorization.k8s.io/v1
kind: RoleBinding
metadata:
  name: developer-edit
  namespace: dev
subjects:
- kind: User
  name: developer
  apiGroup: rbac.authorization.k8s.io
roleRef:
  kind: Role
  name: edit
  apiGroup: rbac.authorization.k8s.io
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```

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apiVersion: networking.k8s.io/v1
kind: NetworkPolicy
metadata:
  name: default-deny-all
  namespace: db
spec:
  podSelector: {}
  policyTypes:
  - Ingress
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```

```
apiVersion: v1
kind: Namespace
metadata:
  name: db
```

```
---

apiVersion: v1
kind: Namespace
metadata:
  name: dev
```

```
---

apiVersion: v1
kind: Namespace
metadata:
  name: test
```

```
---

apiVersion: v1
kind: Namespace
metadata:
  name: prod
```

Security

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```

```
cd openshift-adv/Day3/0.security
```

Security

- Lab - Follow README.md
cd openshift-adv/Day3/0.security

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Monitoring

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cd openshift-adv/Day3/1.monitoring
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Monitoring

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```

```
cd openshift-adv/Day3/1.monitoring
```

- Deployment of Prometheus with Grafana and predefined Dashboard
- Go through together
 - Follow README.md
cd openshift-adv/Day3/1.monitoring

HA & DR with VELERO

git clone <https://github.com/kolinrr/openshift-adv.git>

cd openshift-adv/Day3/2.velero

HA & DR with VELERO

git clone <https://github.com/kolinrr/openshift-adv.git>

cd openshift-adv/Day3/2.velero

- Deployment of Minio, Velero
- Go through together
 - Follow README.md
cd openshift-adv/Day3/2.velero

HA & DR with VELERO

git clone <https://github.com/kolinrr/openshift-adv.git>

cd openshift-adv/Day3/3.capstone

HA & DR with VELERO

git clone <https://github.com/kolinrr/openshift-adv.git>

cd openshift-adv/Day3/3.capstone

- Deployment of Application
 - With DB usage
 - Deployment in different Namespaces
 - Go through together
 - Follow README.md
- cd openshift-adv/Day3/3.capstone

Github self-hosted runner

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git clone https://github.com/kolinrr/openshift-adv.git
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cd openshift-adv/Day3/4.runner
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- Optional
- Go through together
 - Follow README.md
cd openshift-adv/Day3/3.capstone



Questions?