

Backend Evolution

First CloudyGo Event!

Introduction

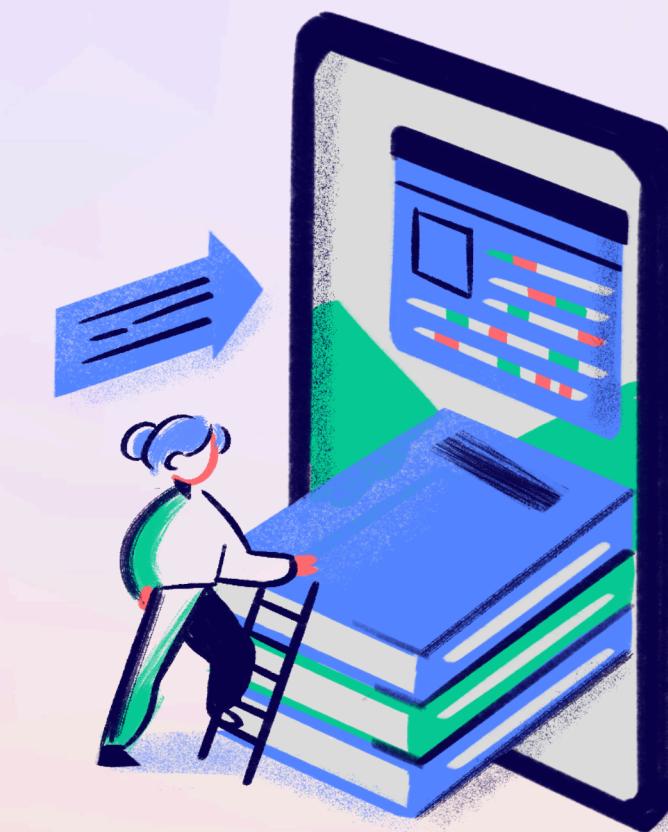
**Don't Be a Framework Developer,
Be a Software Engineer**

Chapters

- Good Old Days
- Application Scaling
- Docker, Podman, Kubernetes
- CI/CD
- Observability
- Golang

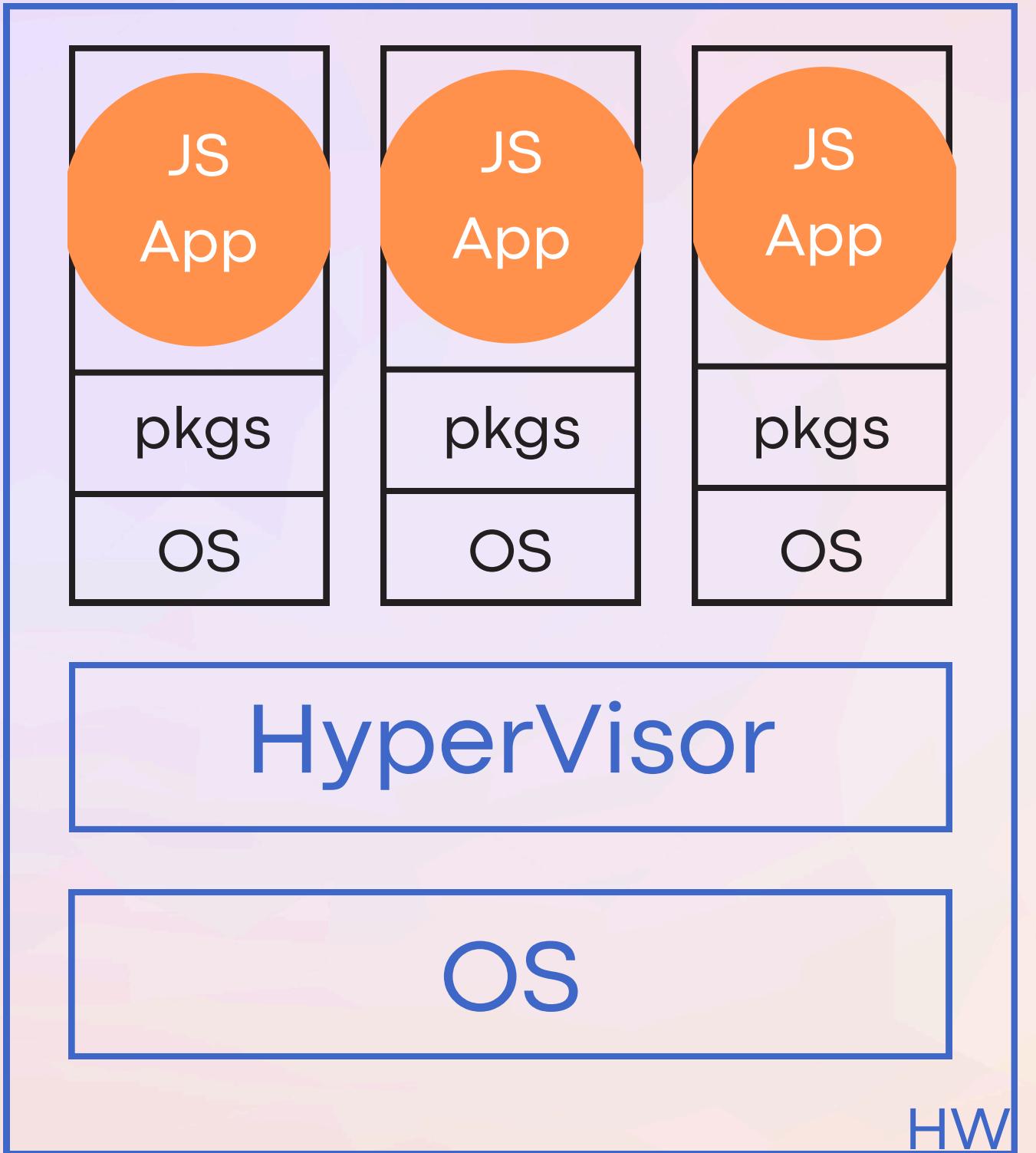


Good Old Days

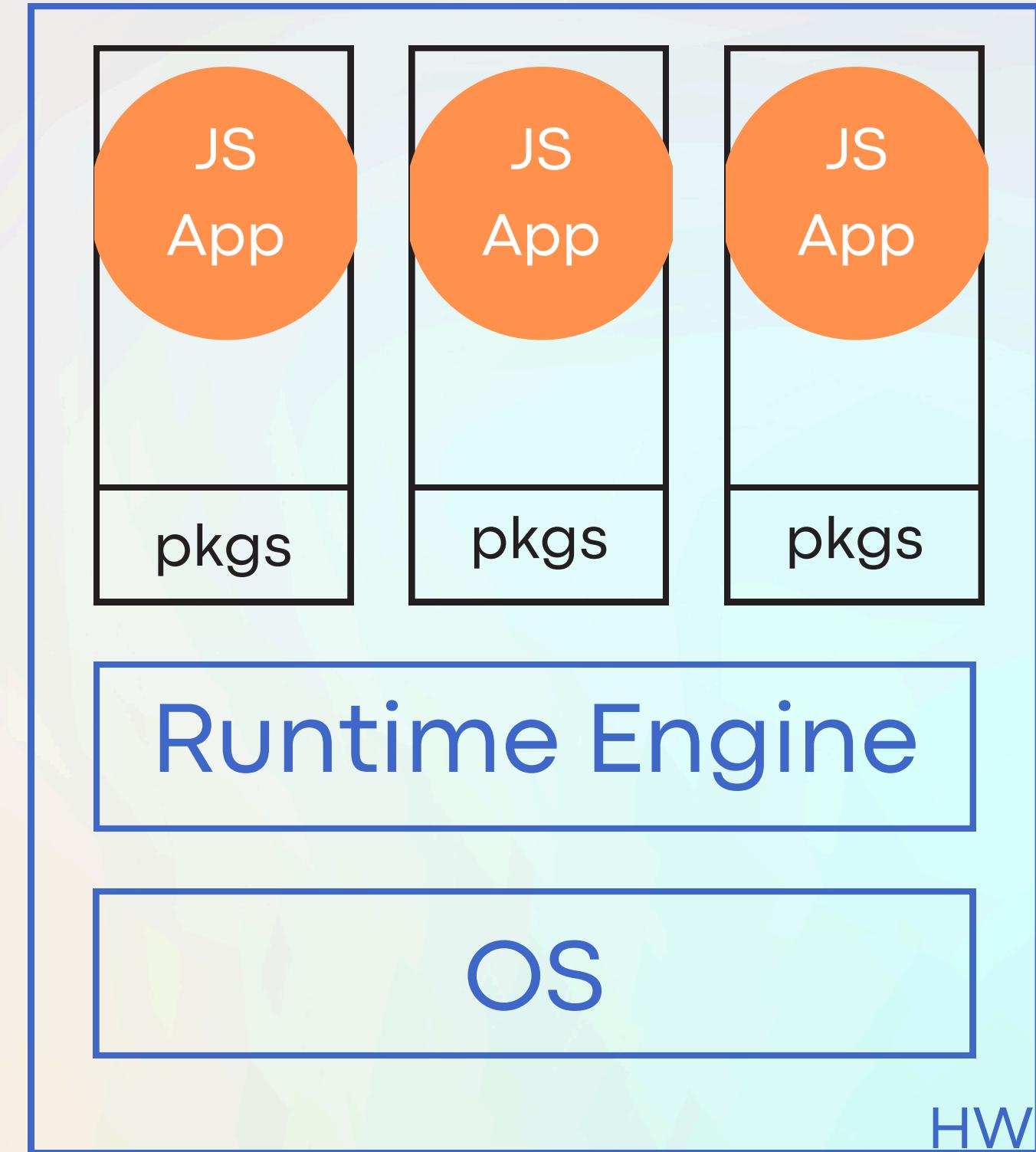


- **Install Everything**
- **Configure Everything**
- **Enterprise System Challenge**
- **Bash**

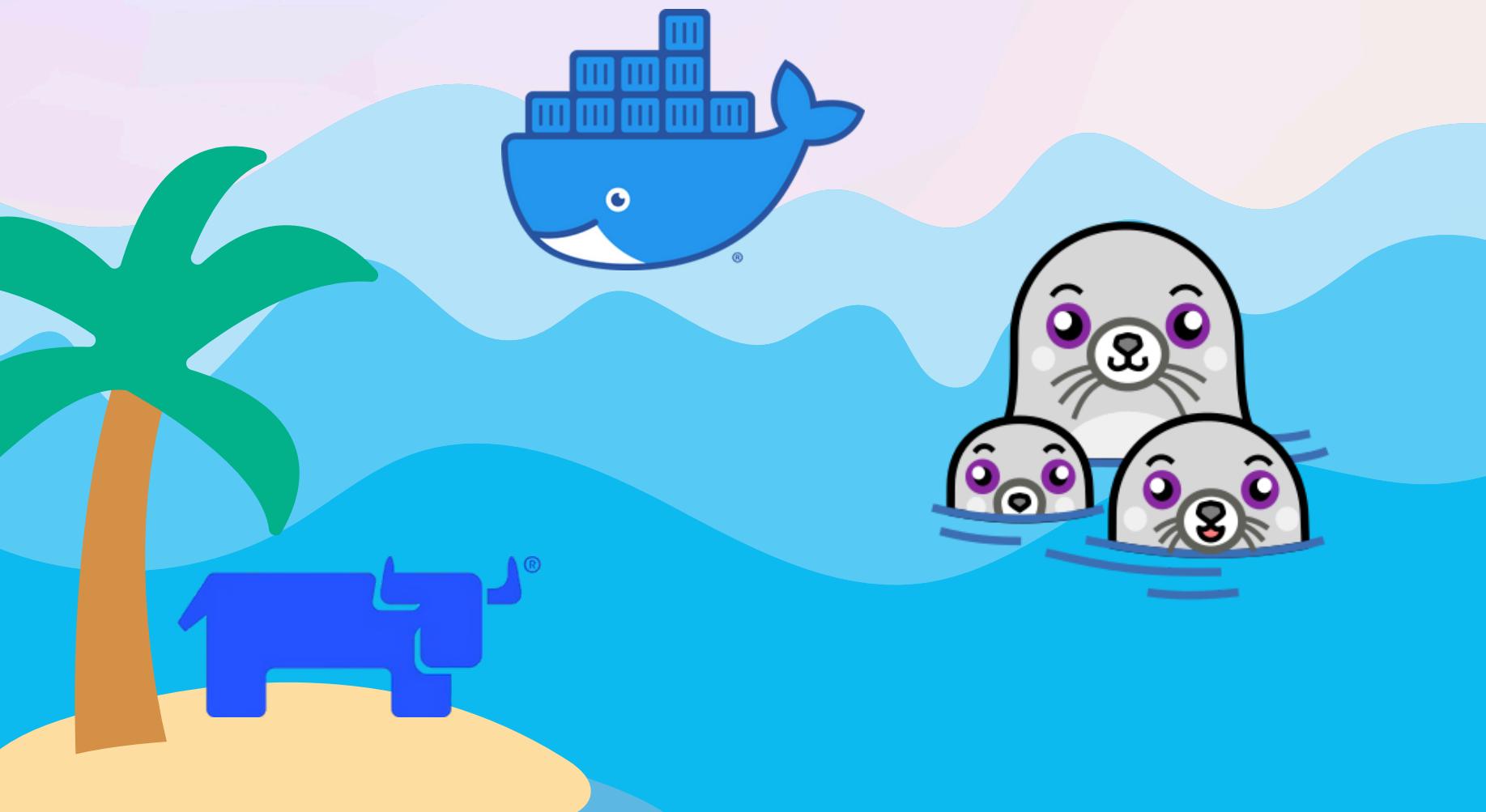
VMWares



Containers



Containers



- OCI
- Commands
- OS Level Isolation

Podman

- Pods
- Multiple units Share Vol, Net
- K8s Ready
- Podman Engine
- Daemonless, Rootless
- Process Replicate Themselves
- Networking

Docker

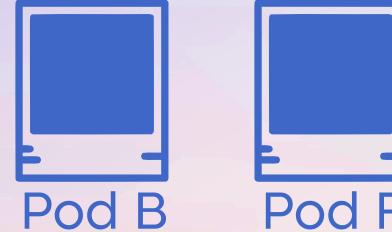
- Industry Standard
- Code, Packages, Runtime
- Dockerfile, Images, Container
- Docker Engine (Daemon)
- Client Server & Heavy Lifting
- Root Access
- Networking

	Daemonless	Rootless	Compose	Swarm
Docker	✗	✗	✓	✓
Podman	✓	✓	✓	✗

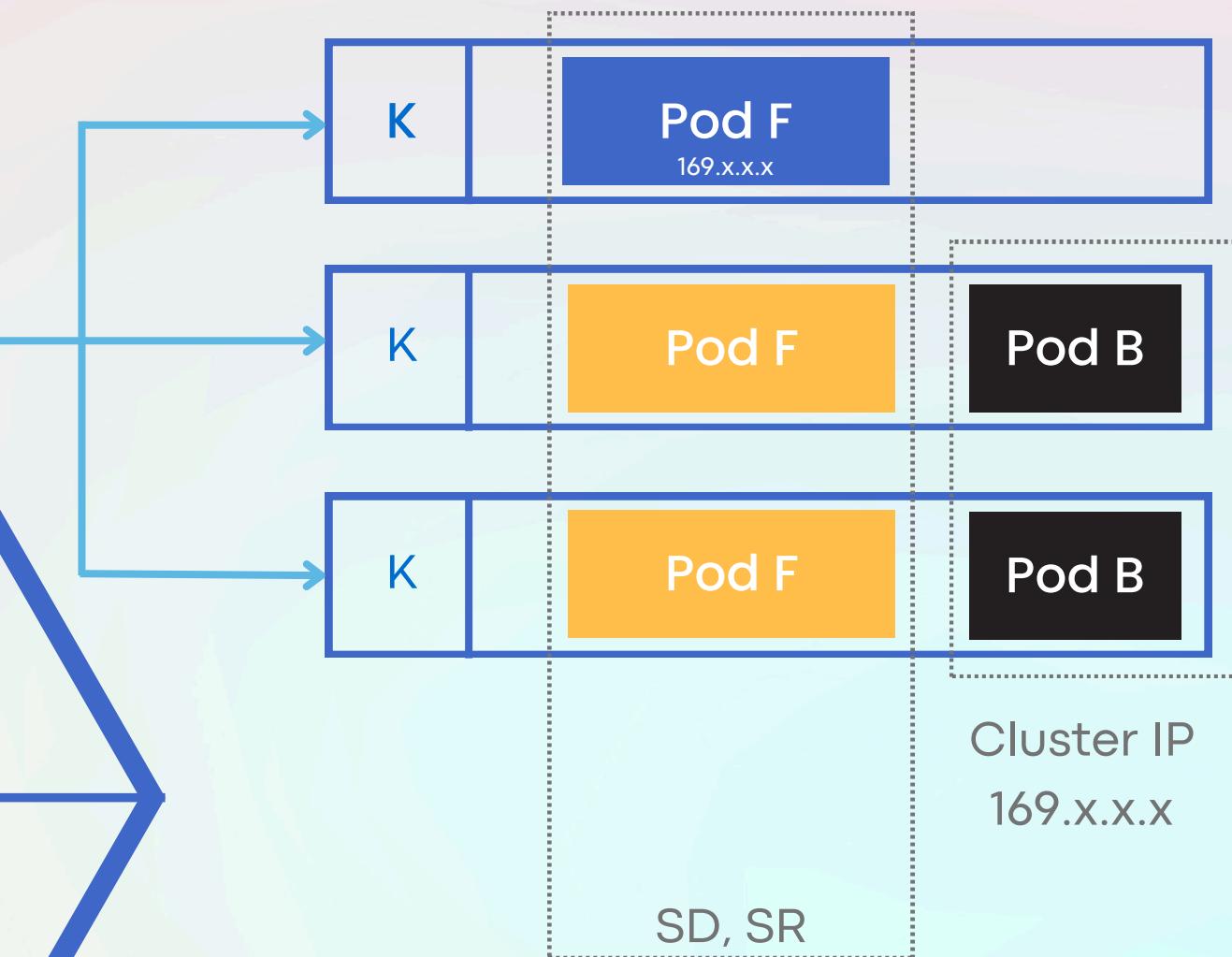
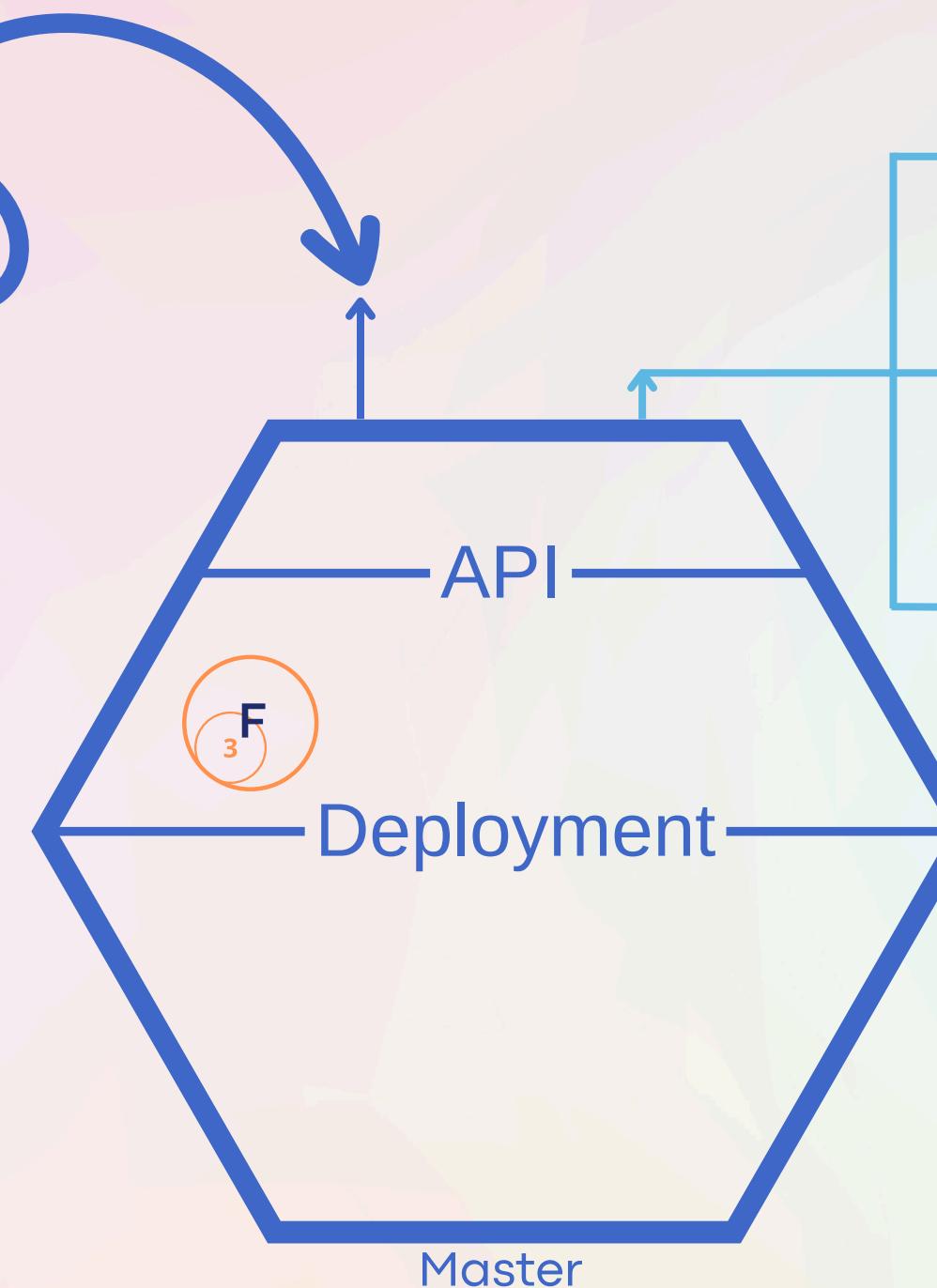
K8s

```
kind: Deployment  
...  
replicas: 3  
template:  
metadata:  
labels:  
app: f
```

.yaml



Kubectl



Continuous Integration

- Even Small Teams Can Benefit
- Avoid Merge Hell
- Always Have Testable Builds
- If Anybody Makes Breaking Changes It Will Not Harm The Whole Code Base & Application

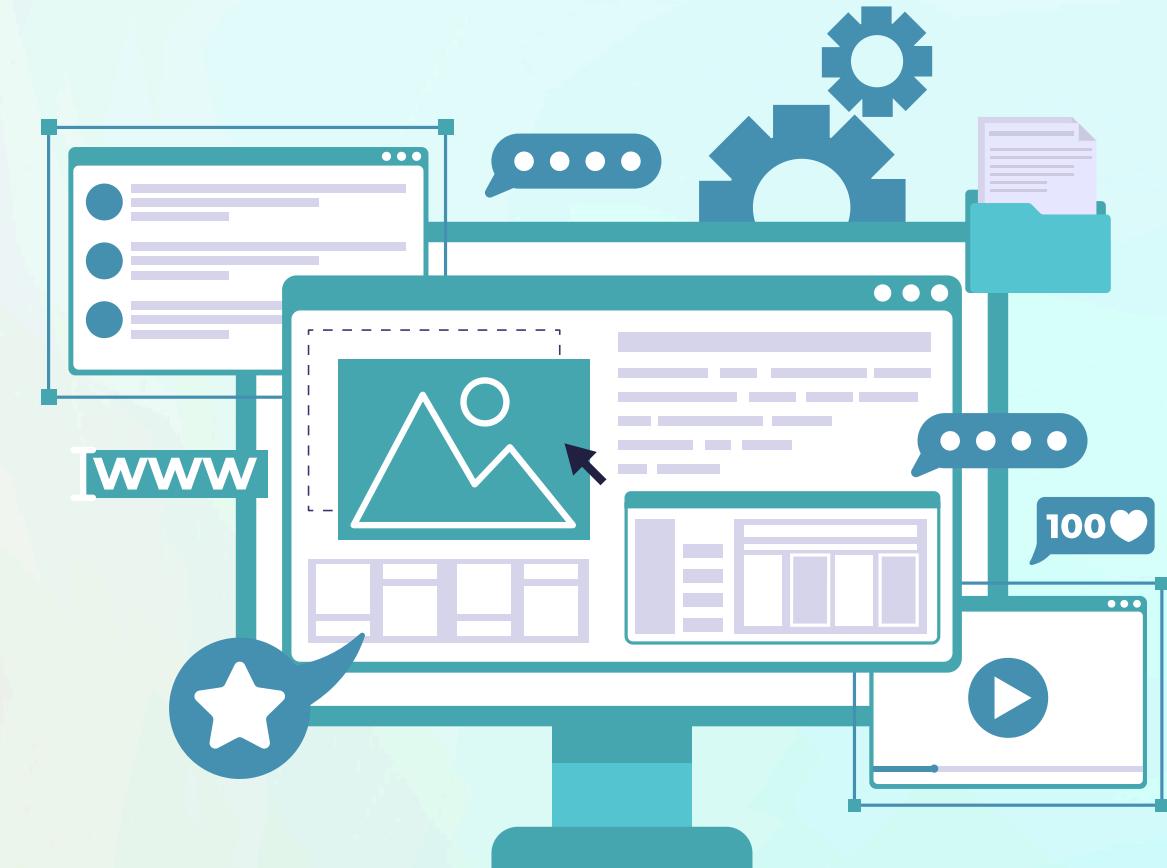


```
    }
}

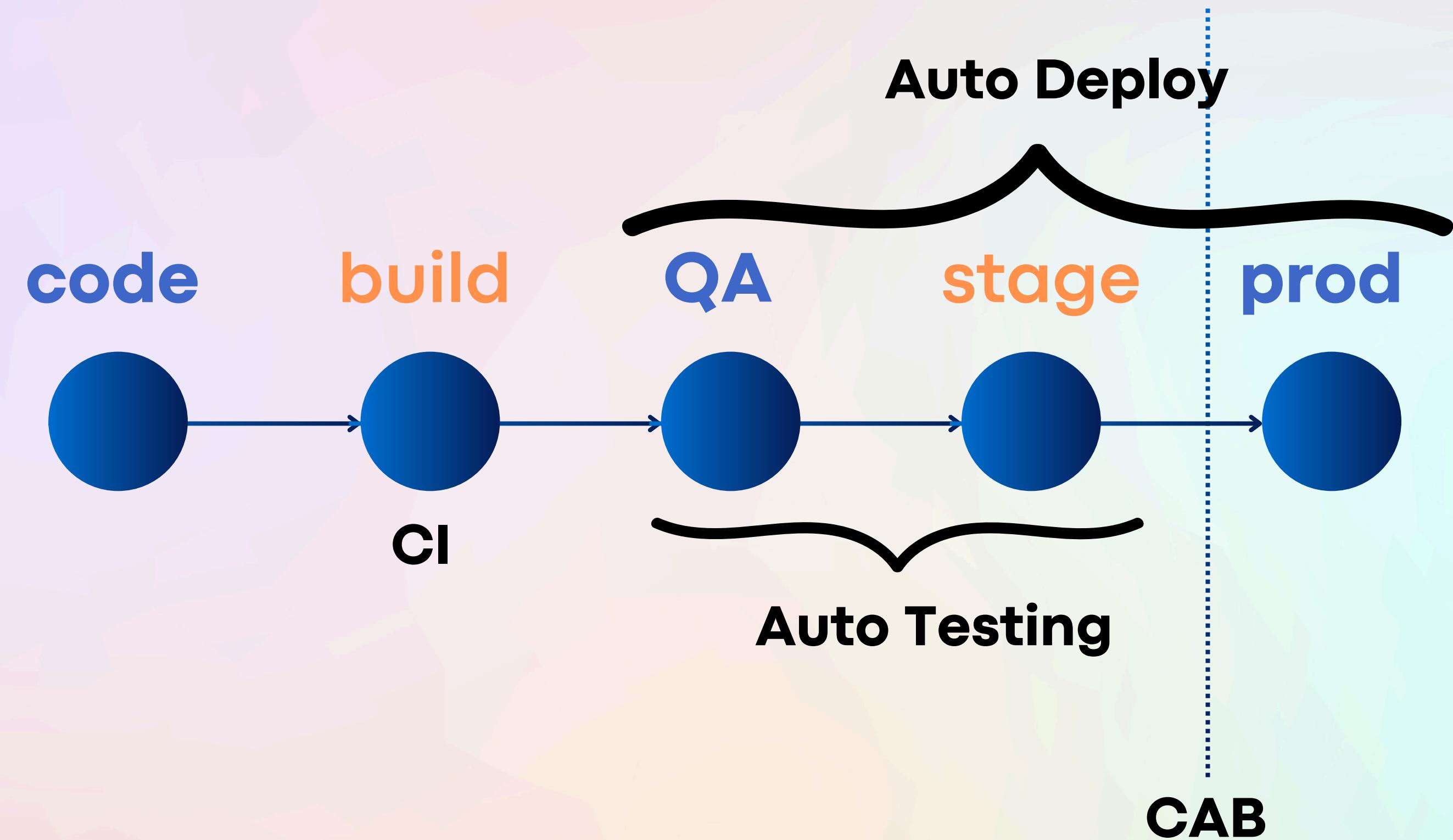
$sort_order = array();
foreach ($quotes as $key => $value) {
    $sort_order[$key] = $value['sort_order'];
}

array_multisort($sort_order, SORT_ASC, $quotes);
$this->session->data['lpa'][['shipping_methods']] = $quotes;
$this->session->data['lpa'][['address']] = $address;
if (empty($quotes)) {
    $json['error'] = $this->language->get('
        error_no_shipping_methods');
} else {
    $json['quotes'] = $quotes;
}

if (isset($this->session->data['lpa'][['shipping_method']]) && !empty($this->session->data['lpa'][['shipping_method']]) && isset($this->session->data['lpa'][['shipping_method']]['code'])
) {
    $json['selected'] = $this->session->data['lpa'][['
        shipping_method']]['code'];
} else {
    $json['selected'] = '';
}
else {
    $json['error'] = $this->language->get('error_shipping_methods');
}
```

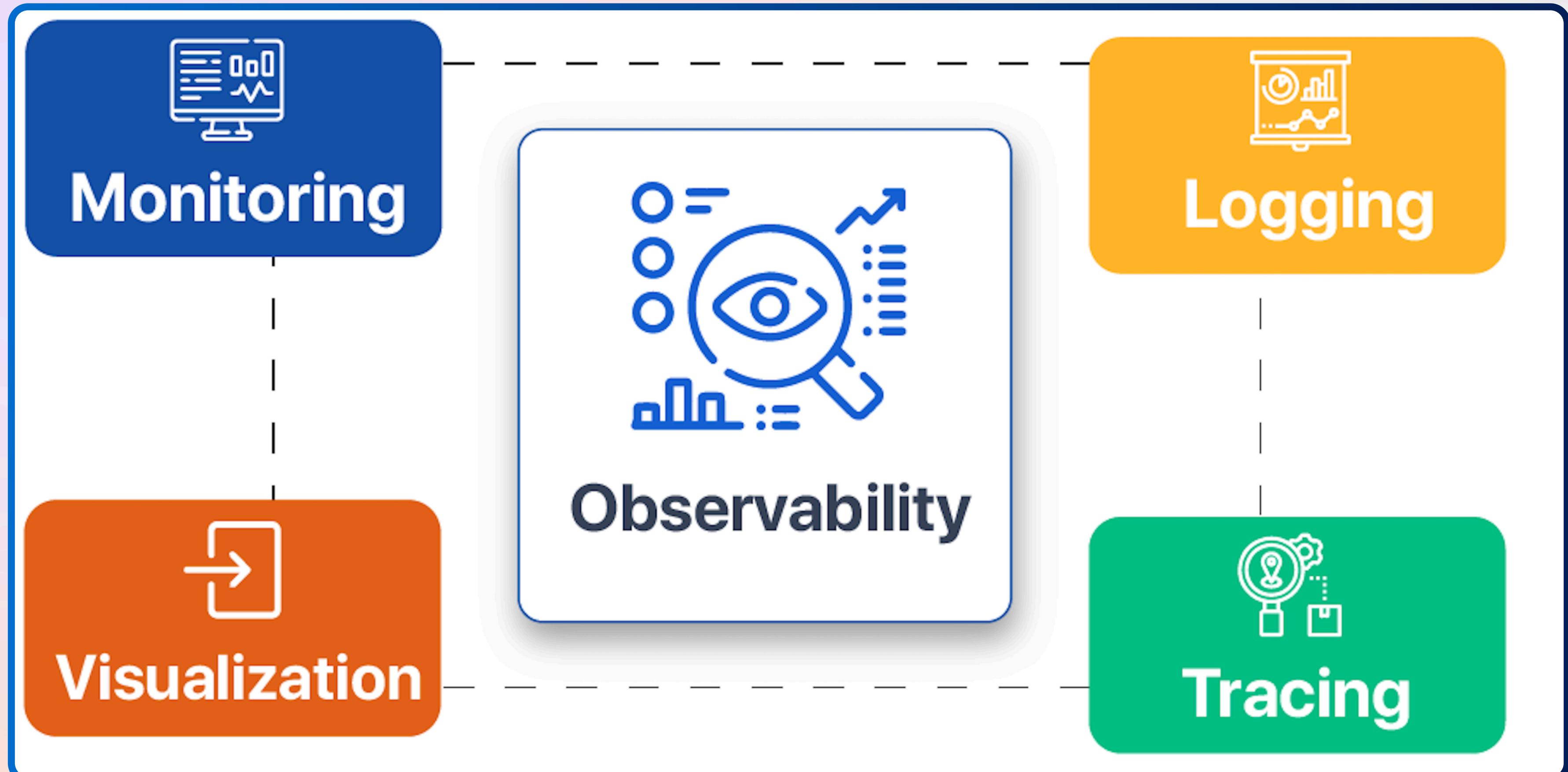


Continuous Delivery



You have something valuable in code, you must have something valuable in production too!

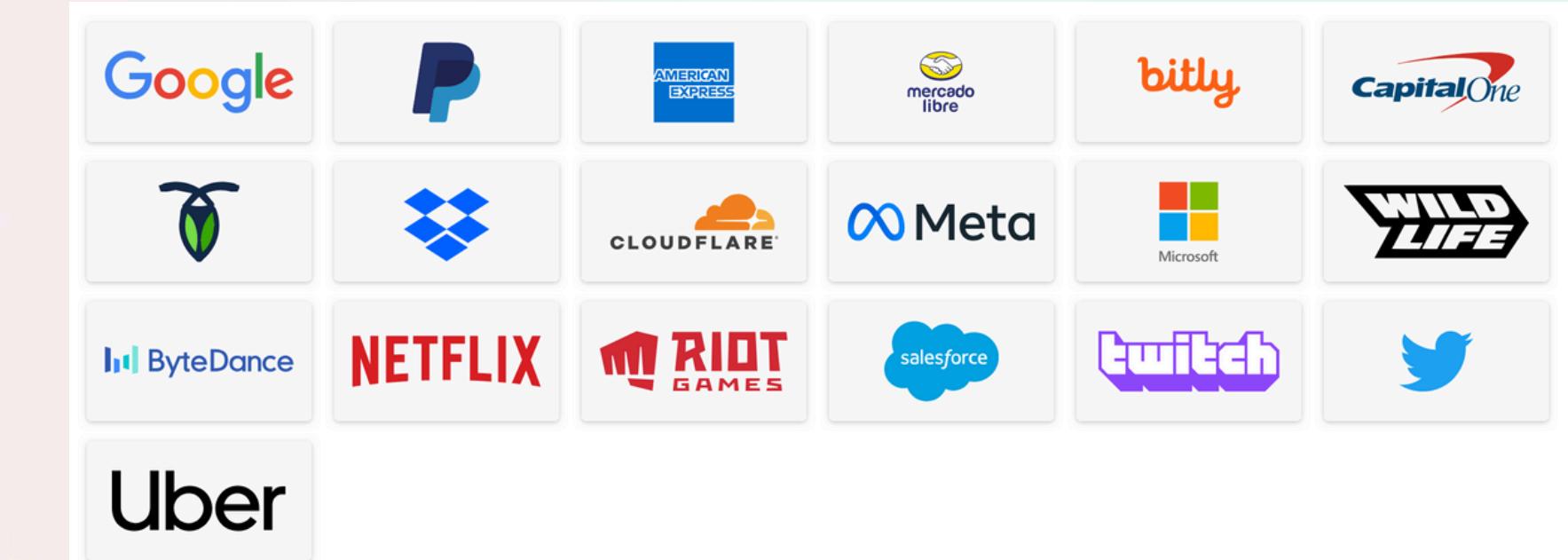
Observability



Golang

Every Tools We discussed So Far Is Built With Golang

- MinIO
- Kubernetes
- Docker Engine
- Podman
- OpenShift
- Prometheus



Companies Use Golang

- Google | Uber | Microsoft | Twitch | Paypal
- Entekhab | Divar | 780 | آپ | Snapp | Cafe Bazar
- usecases & proof of concept

**Enough Talking
Show Me
Some Codes!**

Thank You.



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