

# DOCKER

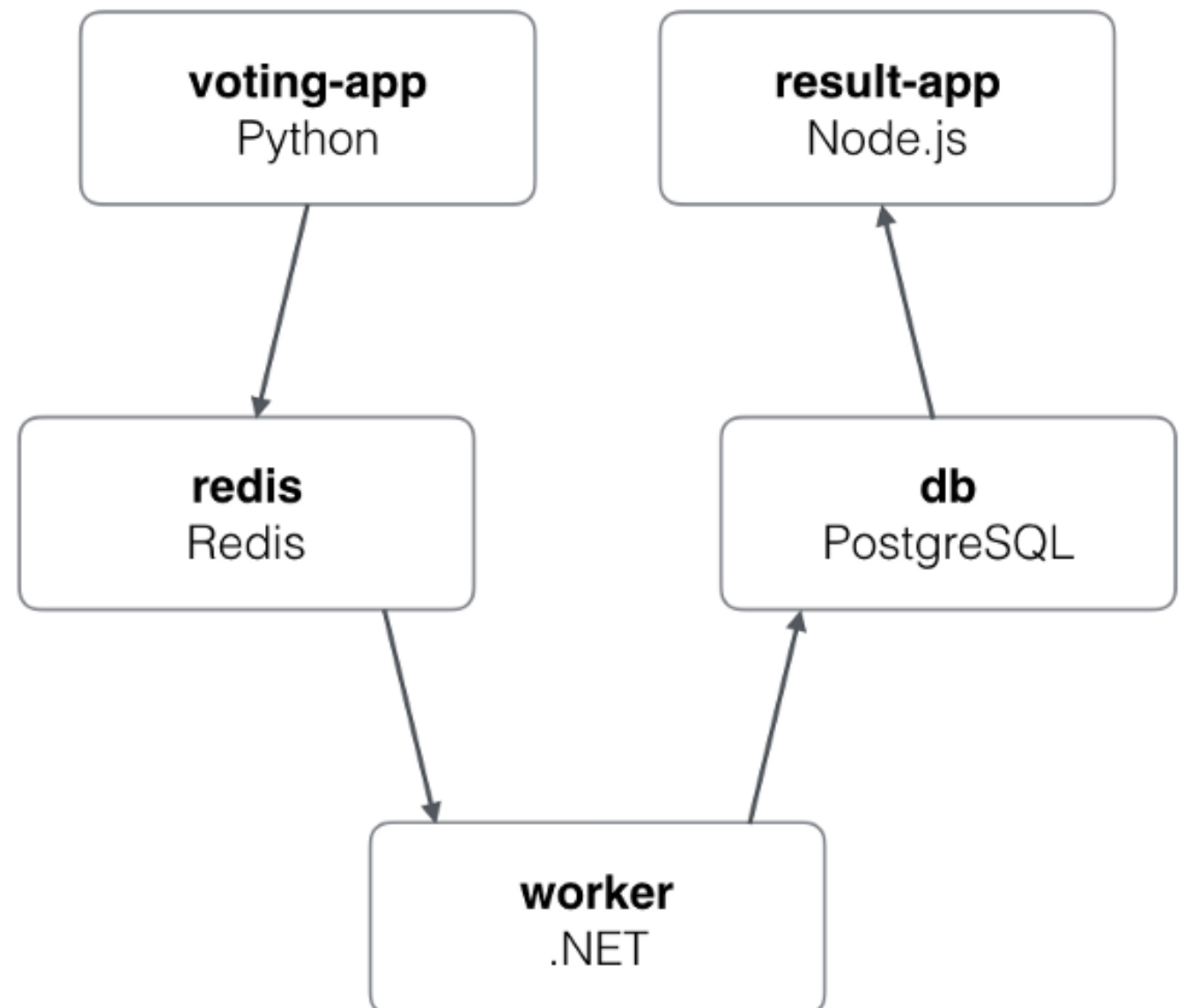
---

*Assignment Answer : Deploy Multi Node Service*

## *Docker : Docker Swarm*

---

- Assignment to Deploy Multi Node Service via Docker Swarm
- Docker's Distributed Voting App.
- Service Architecture:



- Service Parts:
- This is **5 Service** combination App.
- **vote**: front-end that enables a user to choose between a cat and dog
- **redis**: database where votes are stored
- **worker**: service that get votes from redis and store the results in a postgres database
- **db**: the postgres database in which vote's results are stored
- **result**: front-end displaying the results of the vote

- This service need 1 Mount Volume, 2 Network and 5 Stack Services
- Two overlay network you can call `front_end_ntw` and `back_end_ntw` is needed.  
`docker network create -d overlay front_end_ntw`  
`docker network create -d overlay back_end_ntw`

## *Docker : Docker Swarm*

---

- Voting App:
- Image : `dockersamples/examplevotingapp_vote:before`
- Web front app
- Publish this on port `5000`, Listener Container Port `80`
- Publish `5+ replicas`
- Publish on `front_end_ntw` overlay Network

```
docker service create --name vote -p 5000:80 --network  
front_end_ntw --replicas 5 dockersamples/  
examplevotingapp_vote:before
```

## *Docker : Docker Swarm*

---

- Redis:
- Image : **redis:3.2**
- Redis is used to Store the Data from Front End Service
- Publish **5+ replicas**

```
docker service create --name redis --network front_end_ntw -  
-replicas 5 redis:3.2
```

## *Docker : Docker Swarm*

---

- Worker:
- Image : `dockersamples/examplevotingapp_worker:latest`
- This will process on redis and Store Data in postgres
- Use Front-end & Back-end Network
- Publish 1+ replicas

```
docker service create --name worker --network  
front_end_ntw --network back_end_ntw dockersamples/  
examplevotingapp_worker:latest
```

## *Docker : Docker Swarm*

---

- DB Service:
- Image : **Postgres:9.4**
- Mount Volume and mount to `/var/lib/postgresql/data`
- Publish on `back_end_ntw` network
- Publish **1+ replicas**

```
docker service create --name db -- network back_end_ntw  
--mount type=volume, source=db-data, target=/var/lib/  
postgresql/data Postgres:9.4
```



## *Docker : Docker Swarm*

---

- Result Service:
- Image : `dockersamples/examplevotingapp_result:bfore`
- Will display the Voting result
- Publish on `back_end_ntw` network
- Publish on port `5001`, Container port `80`
- Publish `1+ replicas`

```
docker service create --name result --network back_end_ntw  
-p 5001:80 dockersamples/examplevotingapp_result:before
```

*Will see you in Next Lecture...*

---

*Thank you!*

A close-up photograph of a hand holding a black marker, writing the words 'Thank you!' in a cursive script on a white surface. The hand is positioned on the right side of the frame, with the marker tip touching the paper. The background is plain white.

*See you in next lecture ...*