

Cloud and DevOps

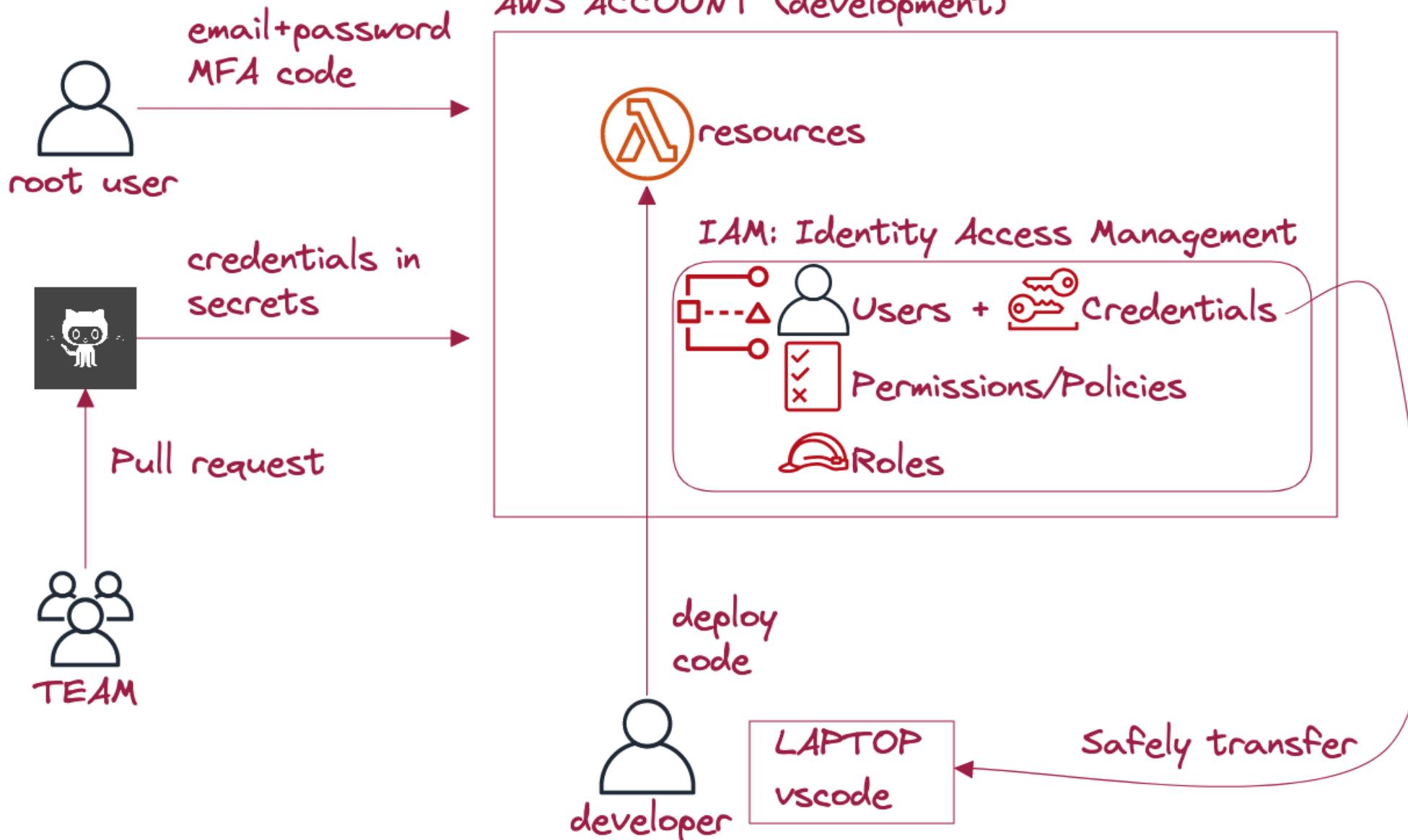
1. Hello Cloud
2. Software development
3. AWS & Serverless
4. Security in AWS
5. Advanced Security & CICD
6. ➡ Testing, Cost and Security at Ohpen ➡
7. Guest speaker



Previously in C&D ...

Any questions about previous sessions
and assignments?

AWS ACCOUNT (development)

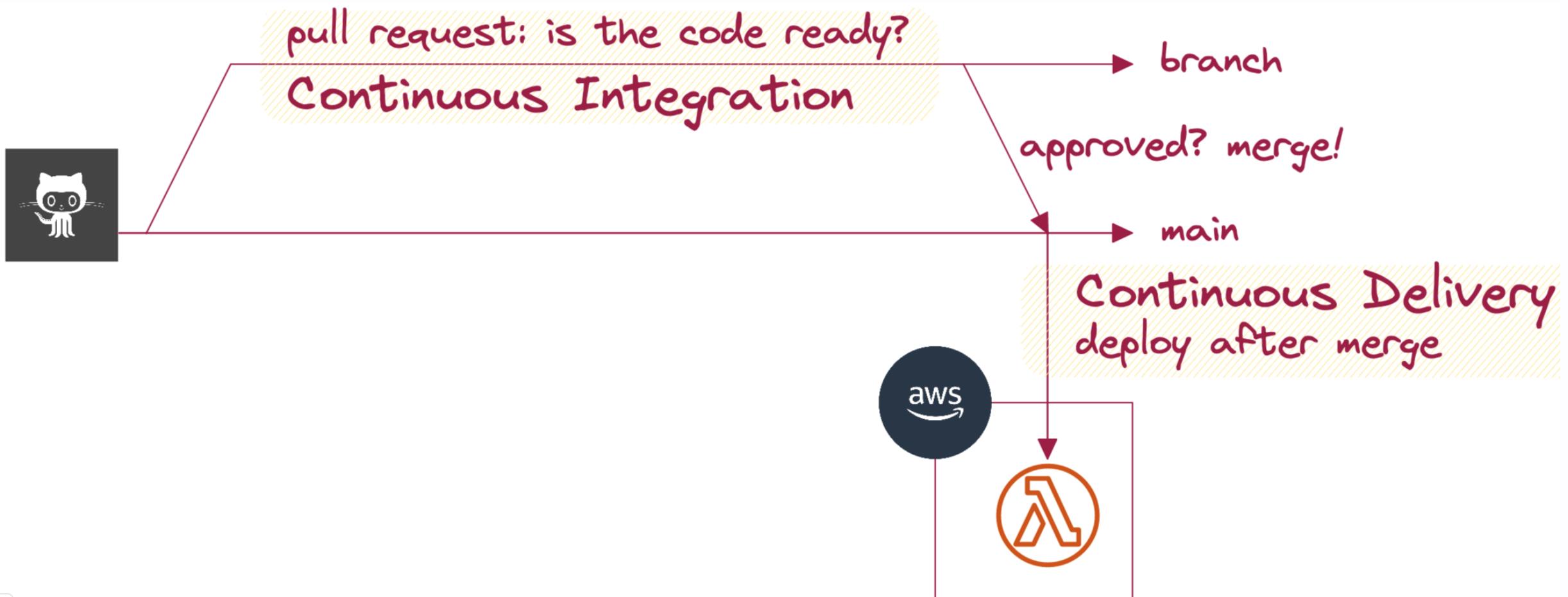


Code in Github



“ Developers manage code in **branches** and create **pull requests** to **continuously integrate** their code to **main** branch. ”

Let's see it in the repository and Ohpen.



QA: Developers

Developers usually do:

- **Manual:** Good for exploration.
- **Unit:** Focuses on a unit/function/class of code.

QA: Product managers

Product Managers care about:

- **Component:** Tests **App** with *use-cases*.
- **Integration:** Tests **system** with *use-cases*.
- **End to end:** Tests **system** with *user stories*.
- **Performance:** Stresses **system** with *user stories*.

“ Can you come up with examples?
What is the difference between Component and
Integration? ”

QA: When and How

“ Tests are evaluated based on: **Speed, Cost and Confidence** ”

- **Component:** Fastest - Low - Limited
- **Integration:** Slow - High - High
- **End to end:** Slow - High - Highest
- **Performance:** Slow - Highest - Highest

QA: As a PM ...

- We should estimate the confidence ourselves.
- We should measure job execution in our CI/CD pipeline.
- How can I **estimate the cost?**

“

Scenario

API gateway + Lambda + Dynamo

vs

Load balancer + EC2 + RDS

”

AWS Cost explorer

How can we oversee costs in AWS?

- Reports
- Budgets
- **Unblended vs Amortized**
- How does Ohpen do it? The importance of tags.

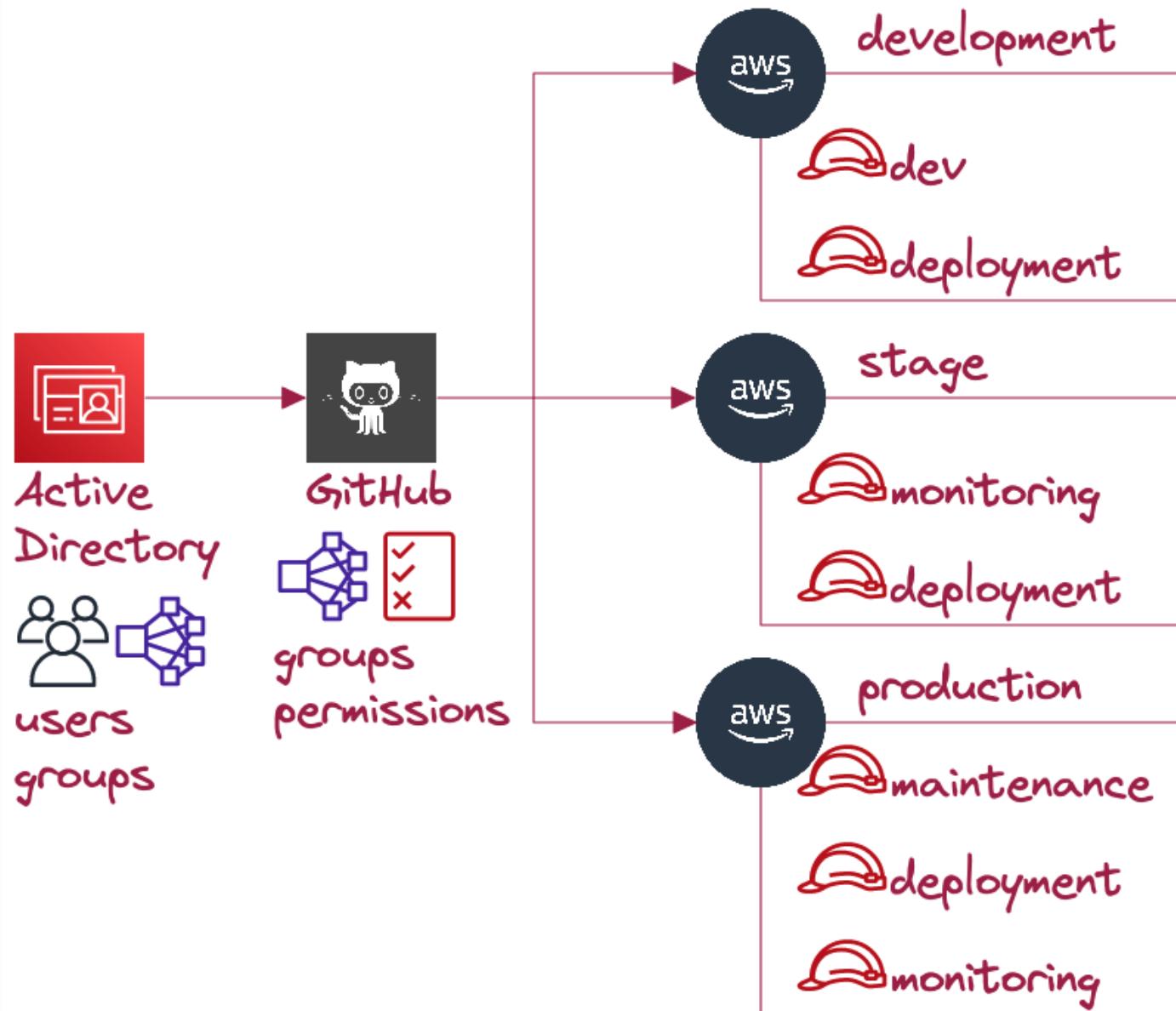
IAM roles



- Users belong to one person.
- Roles can be assumed if allowed.
- Roles don't have credentials but temporary keys.
- AWS services use IAM roles. [Let's see it.](#)
- How are our lambdas allowed to access our Dynamodb?

Permissions at Ohopen

- How users access AWS?
- How does Github deploy?
- How we ensure nobody can deploy from laptop?



Conclusions

- **IAM roles** (and SSO) scale up permissions.
- Teams leverage **CICD** to **ensure** product **quality**.
- As a **PM**, we care about **use cases** and **user stories** and those are covered by **component**, **integration** and **e2e** testing.
- Leverage **AWS Cost explorer** and **documentation** to estimate and manage AWS costs.