

Cloud and DevOps

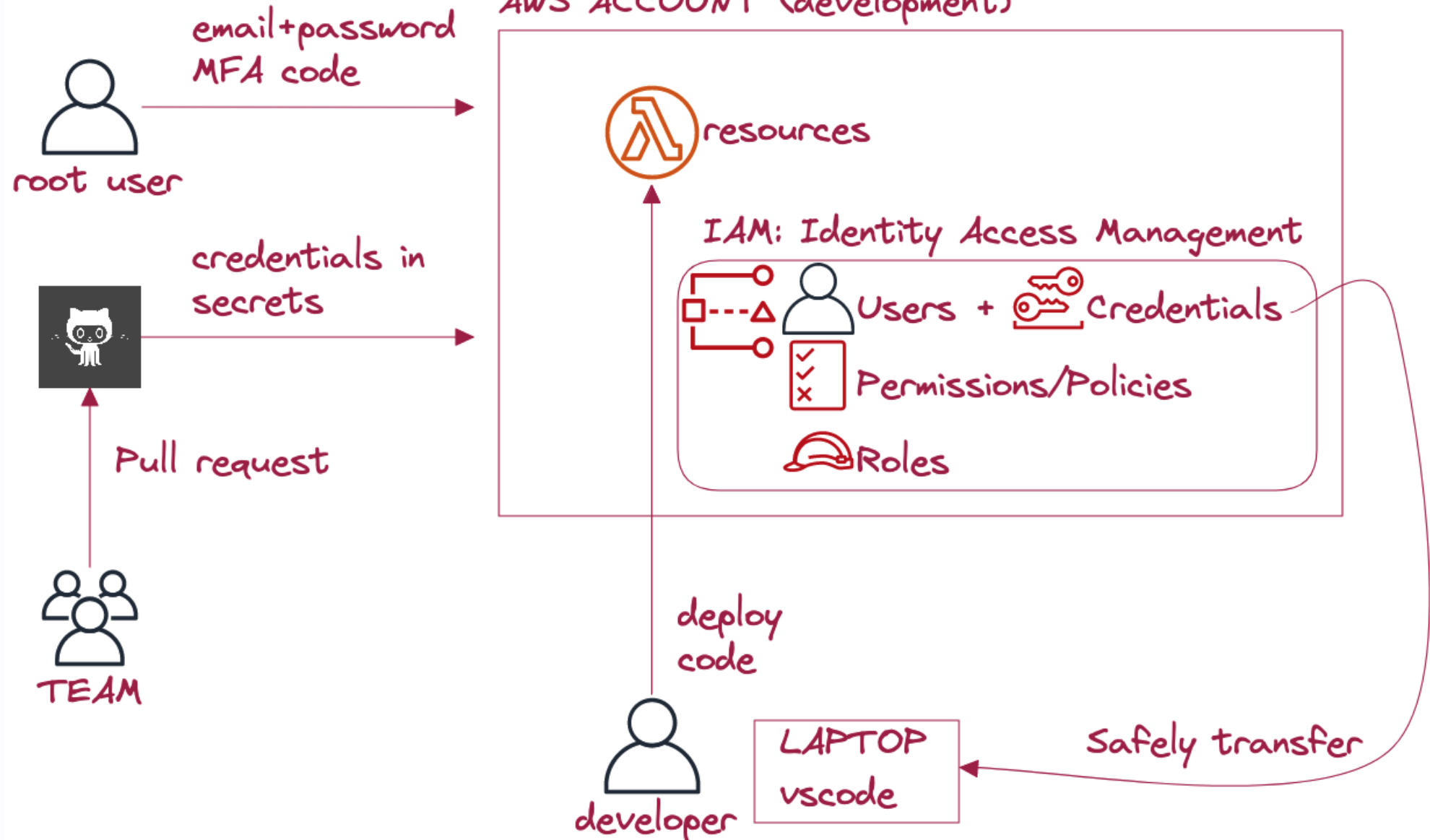
1. Hello Cloud
2. Software development
3. AWS & Serverless
4. Security in AWS
5. 📌 **Security, Testing & Cost management** 📌
6. Devops & CI/CD: Recap
7. Guest speaker

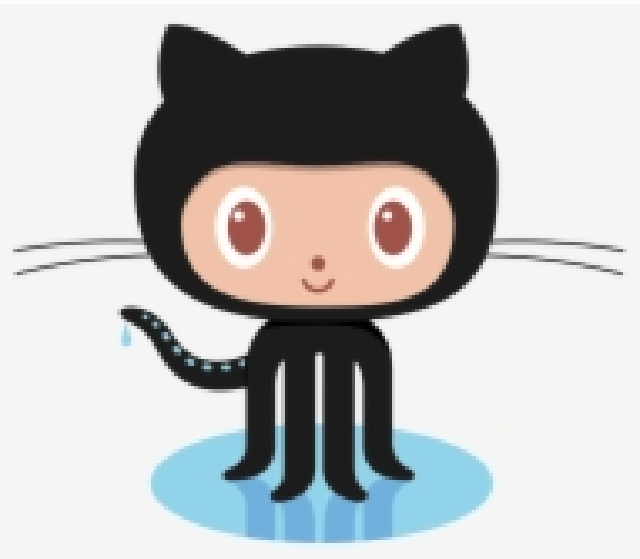


Previously in C&D ...

Any questions about previous sessions
and assignments?

AWS ACCOUNT (development)





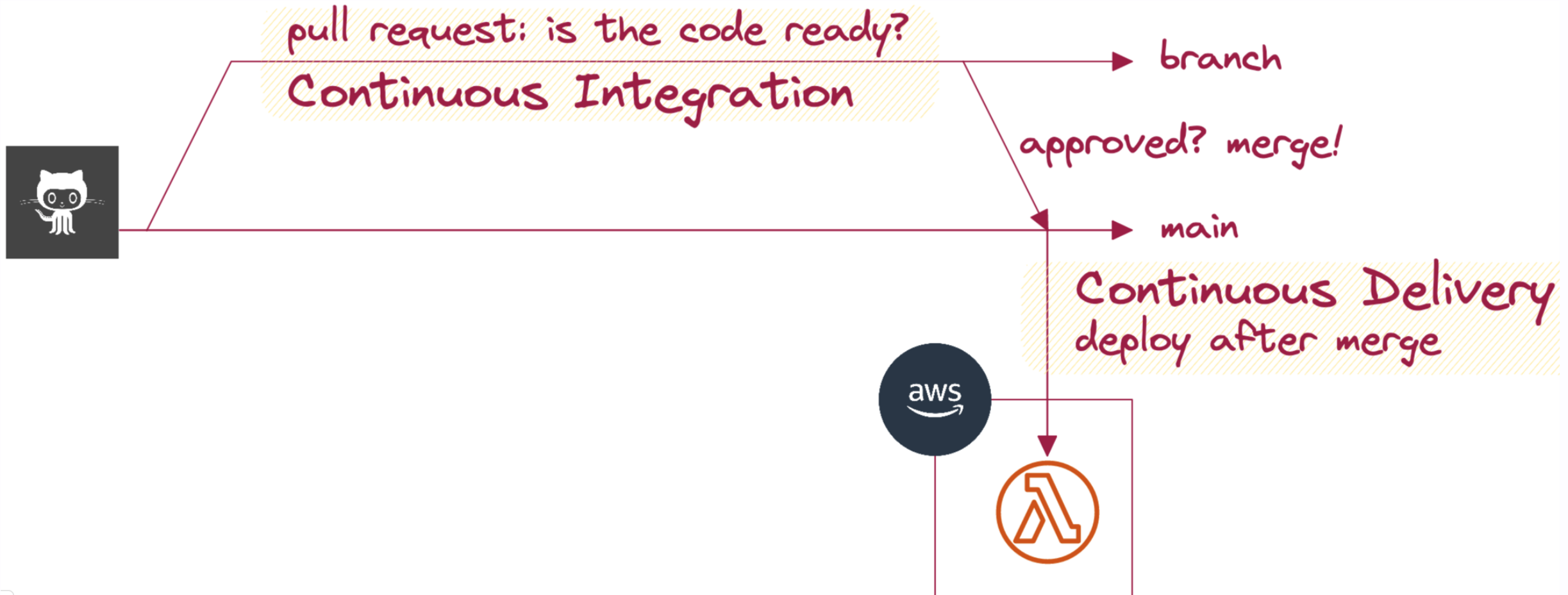
Code in Github

“

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.



Quality Assurance

- **Manual** testing: Everybody does it.
- **Unit**: Tests a single unit of code.
- **Integration**: Tests one use case. Service deployed.
- **End to end**: Tests a user story. Service deployed.
- Can you come up with examples?

CI/CD vs tests

When should we use each type of testing?

- **Manual:** Fast, medium cost, bad coverage.
- **Unit:** Fast, low cost, limited coverage.
- **Integration:** Slow, medium cost, good coverage.
- **E2E:** Slower, medium cost, high coverage.



Serverless architecture have shifted the paradigm.



IAM roles

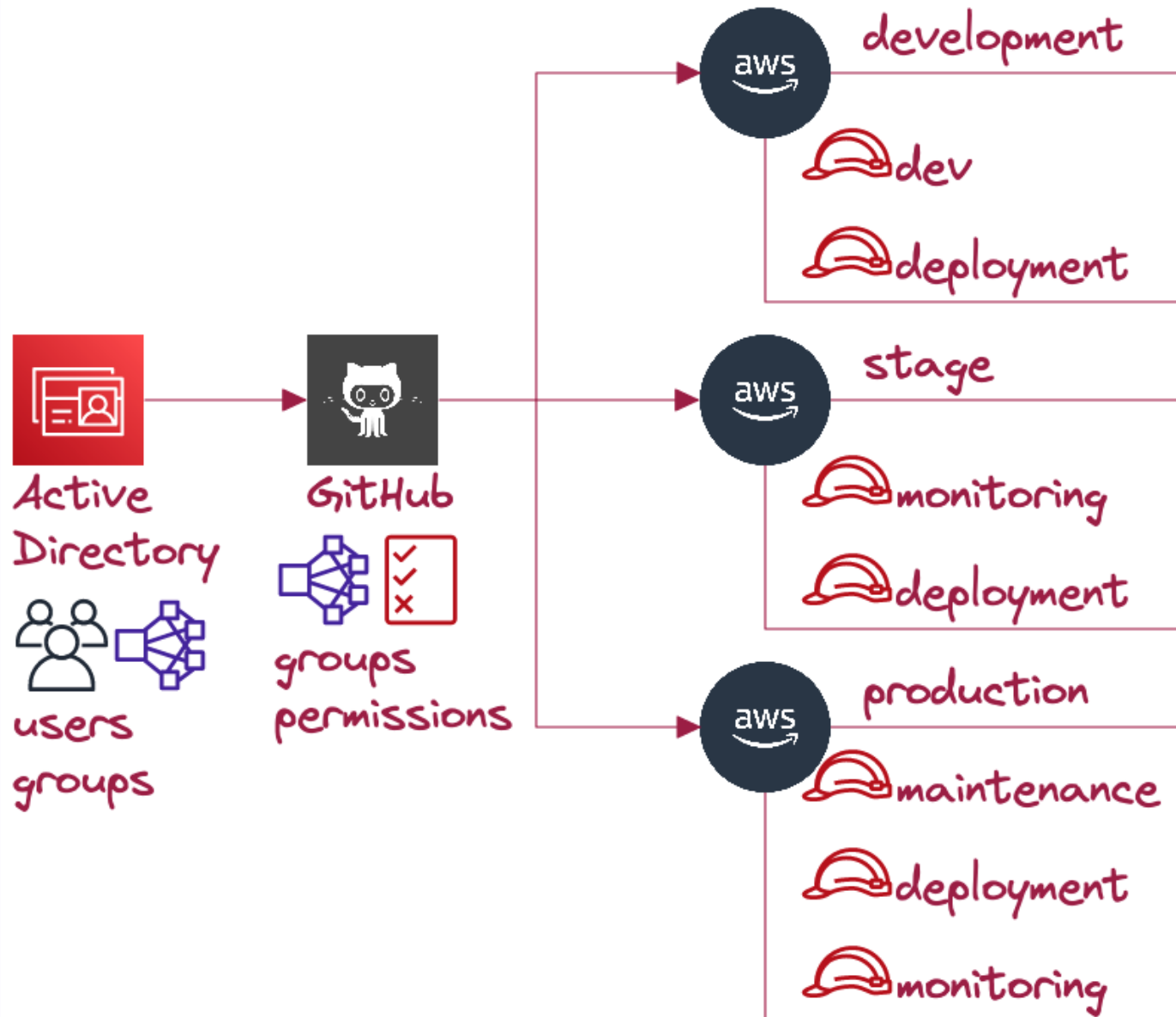


- Users belong to one person.
- Roles can be assumed if allowed.
- Roles don't have credentials but temporary keys.
- AWS services use IAM roles. **Let's see it.**
- How are our lambdas allowed to access our Dynamodb?

Permissions at Ohpen

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





AWS Cost explorer

How can we oversee costs in AWS?

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

Conclusions

- **IAM roles and SSO** scale up your permissions across your organization.
- IAM roles provide temporary credentials.
- Teams leverage **CI/CD** to **ensure** product **quality**.
- As a **PM**, we care about **integration** and **e2e** testing.
- **AWS Cost explorer** is the go-to solution for costs in AWS