

# FUN FACTS FOR EARLY BIRDS

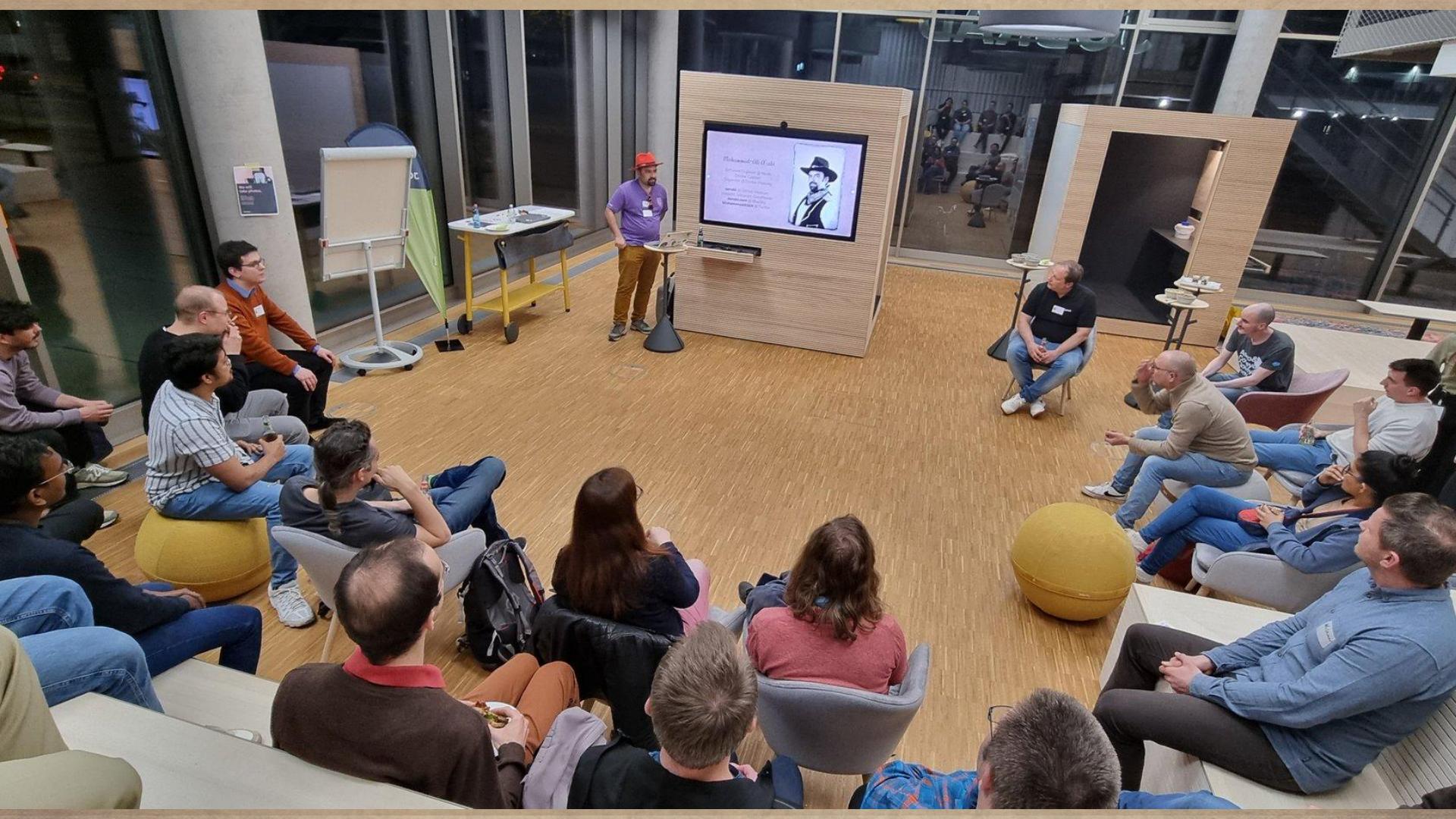
Did you know that:

1. The word "**algorithm**" comes from the name of the Persian mathematician Muhammad ibn Musa **al-Khwarizmi**, who lived in the 9th century. His book on decimal numbers was translated into Latin under the title **Algoritmi de Numero Indorum** (meaning "Al-Khwarizmi on Indian numbers"). The title was misinterpreted to mean "algorithms on Indian numbers".
2. The word **Chess** (as well as **check**) come from the Persian word **shah** which means "king". **Checkmate** means "the king is dead".
3. Not all infinities are the same. There are more real numbers than natural numbers, but natural numbers and rational numbers have the same cardinality.
4. The word **tulip** comes from the Persian word **dulband** meaning "turban", a headwrap worn by men.
5. The word **magic** comes **magh**, a Persian word for the priests of Zoroastrianism, an Iranian religion practiced since 16th century BCE.
6. Speaking of Zoroastrianism, the word **Paradise** comes from Old Iranian word **paridaiza**, meaning "enclosed garden". This word was loaned in Greek as **paradeisos** and was used by Xenophon and others for an orchard or royal hunting park in Persia, and it was taken in Septuagint to mean "the garden of Eden," and in New Testament translations of Luke xxiii.43 to mean "the Christian heaven, place where the souls of the righteous departed await resurrection".
7. Al-Khwarizmi has another book called **al-mukhtasar fi hisab al-jabr wa al-muqabala** meaning "the compendium on calculation by restoring and balancing". **Al-jabr** "restoring" became **algebra** in Europe.

# BEST PRACTICES DEVELOPING (A WEB APP)

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2024-10-07





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#### FUN FACTS FOR EARED BIRDS

Did you know that there are more than 100 species of eared birds? These birds have a unique feature: they have external ear openings on their heads, just like mammals do. This allows them to hear sounds coming from different directions.

One interesting fact about eared birds is that they can hear frequencies that humans cannot. For example, some species of parrots can hear ultrasonic sounds, which are frequencies above 20,000 Hz.

Another fascinating aspect of eared birds is their ability to communicate through song. Many species have complex vocalizations that serve as a form of communication between individuals.

It's also worth noting that eared birds are found in a variety of habitats, from tropical rainforests to deserts and even in urban environments.

In conclusion, eared birds are a diverse and fascinating group of animals that play an important role in their ecosystems. By learning more about them, we can better appreciate the complexity and beauty of the natural world.



# 00

## PYTHON + GIT

The snake bit you

01010000



# · WHAT'S WRONG WITH THIS PIECE ·

```
ALLOWED_HOSTS = [  
    “aerabi.com”,  
    “blog.aerabi.com”  
]
```

# · WHAT'S WRONG WITH THIS PIECE ·

```
ALLOWED_HOSTS = [  
    “aerabi.com”,  
    “blog.aerabi.com”,  
    “localhost”  
]
```

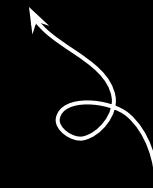
**· WHAT DO YOU CONTROL VERSION WITH ·**

• WHAT DO YOU CONTROL VERSION WITH •

GIT

• WHAT DO YOU CONTROL VERSION WITH •

GIT



Named  
after its  
creator



# · WHAT'S WRONG WITH THIS PIECE ·

```
ALLOWED_HOSTS = [  
    "aerabi.com",  
    "blog.aerabi.com",  
    "localhost"  
]
```

# GIT BLAME

The best way to  
blame developers



· WHAT DO YOU BLAME PEOPLE WITH ·

GIT BLAME

# · GOOD VERSION ·

```
ALLOWED_HOSTS = [  
    “aerabi.com”,  
    “blog.aerabi.com”,  
    “localhost”,  
]
```



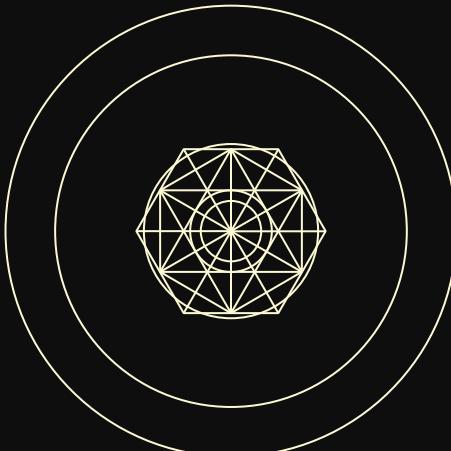
# GIT BLAME IS INVENTED FOR

## BLAMING

Check the commit that created the change, to check for more context

## PRIDE

Some people take pride in the number of lines of changes they created



# DEMO TIME

The image shows a detailed historical world map from the 16th century. The map is oriented with North at the top, showing the Northern Hemisphere on the left and the Southern Hemisphere on the right. The map includes labels for 'NORTHEM HEMISPHERE' and 'SOUTHEM HEMISPHERE'. A central box contains the text 'DEMO TIME'. The map is filled with various geographical features, including continents, oceans, and islands. The style is characteristic of early printed maps, with a focus on cartographic accuracy and geographical knowledge of the era.

# • GIT BLAME BLAMING •

```
$ git blame README.md
```

# ▪ GIT BLAME NOT BLAMING ▪

```
$ git log --format='%an <%ae>'  
| sort  
| unique
```

# ▪ GIT BLAME NOT BLAMING ▪

```
$ git log  
--author=<author>  
--oneline  
--shortstat
```

# • GIT BLAME NOT BLAMING •

```
$ git log  
--author=<author>  
--pretty=format: --numstat
```

# • GIT BLAME NOT BLAMING •

```
$ git ls-files -z  
| xargs -0n1 git blame -w --show-email  
| perl -n -e '/^.*?\((.*?)\)\s+[\d]{4}/;  
print $1,"\\n"  
| sort -f  
| uniq -c  
| sort -n
```

# GIT-BLAME-FRIENDLY CODING

## ADD A LINTER

A linter or formatter can unify code styling in the codebase



## ADD CONFIG

Agree on a common linter config and add it to repos



## PRE-COMMIT

Add a pre-commit hook to reformat upon committing



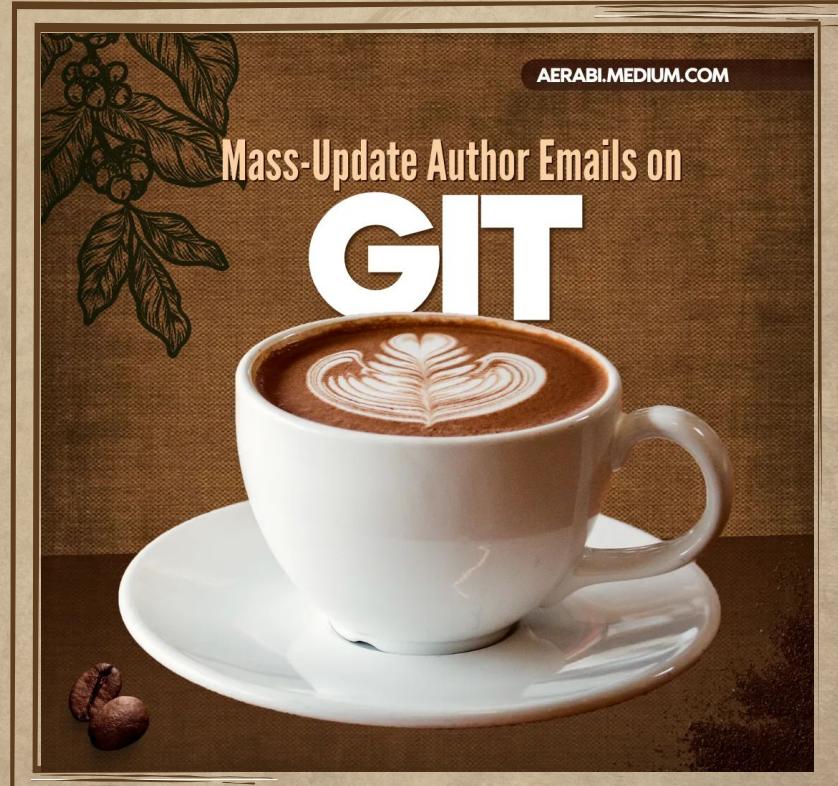
## CI CHECK

Add a CI check to make sure code is formatted

# BLOG

Mass-Update Author  
Email Addresses on a Git  
Repo

[aerabi.medium.com](https://aerabi.medium.com)



# • GIT MAILMAP •

```
$ cat << EOF > .mailmap  
    <aerabi@gmx.de> <other-email>  
    Mohammad-Ali <aerabi@gmx.de>  
EOF
```

# GITHUB

[github.com/aerabi/talks](https://github.com/aerabi/talks)  
[github.com/aerabi/chat](https://github.com/aerabi/chat)  
[github.com/aerabi/events](https://github.com/aerabi/events)

# 01

## MERGING

How do you merge them  
commits?



# THREE MERGING STRATEGIES

I.

## THREE-WAY MERGE

Merge by creating a  
merge commit



II.

## REBASE & FAST-FORWARD

Just put the commits in  
the master branch

III.

## SQUASH MERGE

Squash all the commits  
and add it to the master

# DEMO TIME

The image shows a detailed historical world map from 1606. The map is oriented with the Northern Hemisphere at the top. It features a grid of latitude and longitude lines. The Northern Hemisphere is divided into several regions, including 'THE OCEANE OF ZUR OF PERU', 'NORTHEM AMERICA OR PERU', 'THE PACIFICKE SEA', 'THE WESTERNE OCEAN', 'THE INDIAN SEA', 'THE MEDITERRANEAN SEA', 'ATLAN TICKE SEA', and 'THE SOUTHEM HEMISPHERE'. The Southern Hemisphere is partially visible at the bottom. The map is filled with numerous place names, some of which are enclosed in decorative cartouches. A prominent feature is a large rectangular box in the upper left quadrant containing the words 'DEMO TIME' in a serif font.

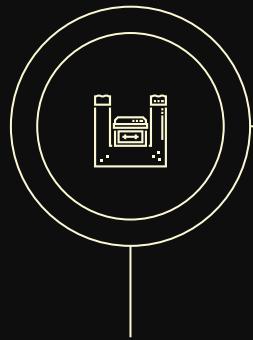


# 02

## ONION

Web app's architecture

# CLEAN ARCHITECTURE



## CONTROLLER

I/O layer dealing with  
the web traffic



## SERVICE

The business logic  
lies here



## REPOSITORY

Repository pattern  
deals with data I/O



## MODELS

Database models deal  
with the data

# CLEAN ARCHITECTURE



# BAD PRACTICES



## LOGIC IN CONTROLLER

How do you test that sh!d?



## NO TEST

Our thing is complicated,  
we test it manually



## DB IN SERVICE

Have fun changing the  
database provider



## NO REPOSITORY

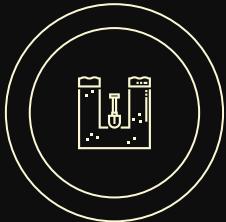
Database metadata should not  
bleed out to the service layer



## RETURN DB RECORD

Do you bleed?

# GOOD PRACTICES

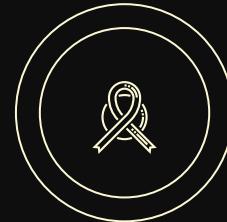


## CONTROLLER

Keep thin, avoid business logic

## SERVICE

Pure business logic, no external dependencies



## REPOSITORY

Pure data handling, translate database records to entities



# DEPENDENCY INVERSION PRINCIPLE

The service layer should depend on an interface to the repository, not its implementation. This can be achieved using dependency injection libraries.



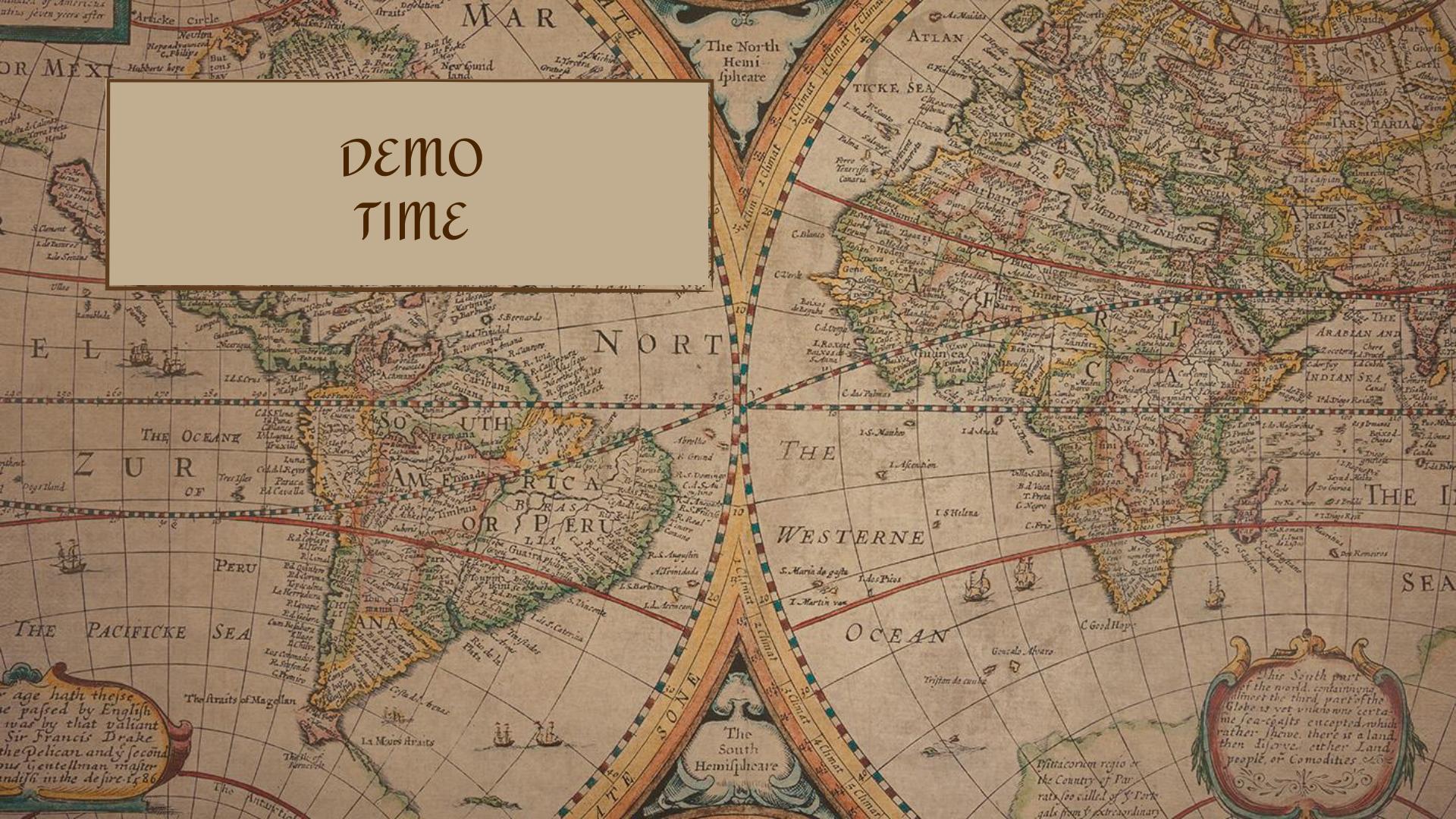
## LET'S DIP





To see great examples,  
refer to my GitHub repos.

# DEMO TIME



age hath these  
passed by English  
was by that valiant  
Sir Francis Drake  
the Pelican and y seconde  
one a gentleman master  
and shipp in the deſire 1586

Pitacorion regio or  
the Country of Par  
rats, so call'd by Turk  
gals from y extraordinary

This South part  
of the world, containing  
almost the third part of the  
Globe, is very unknowne certa  
in sea-crafts excepted which  
rather shewe there is a land,  
then if fore, either Land  
people, or Comodities ead

# GIT GUT

# Hackdöckerfest

## Tech Meetup

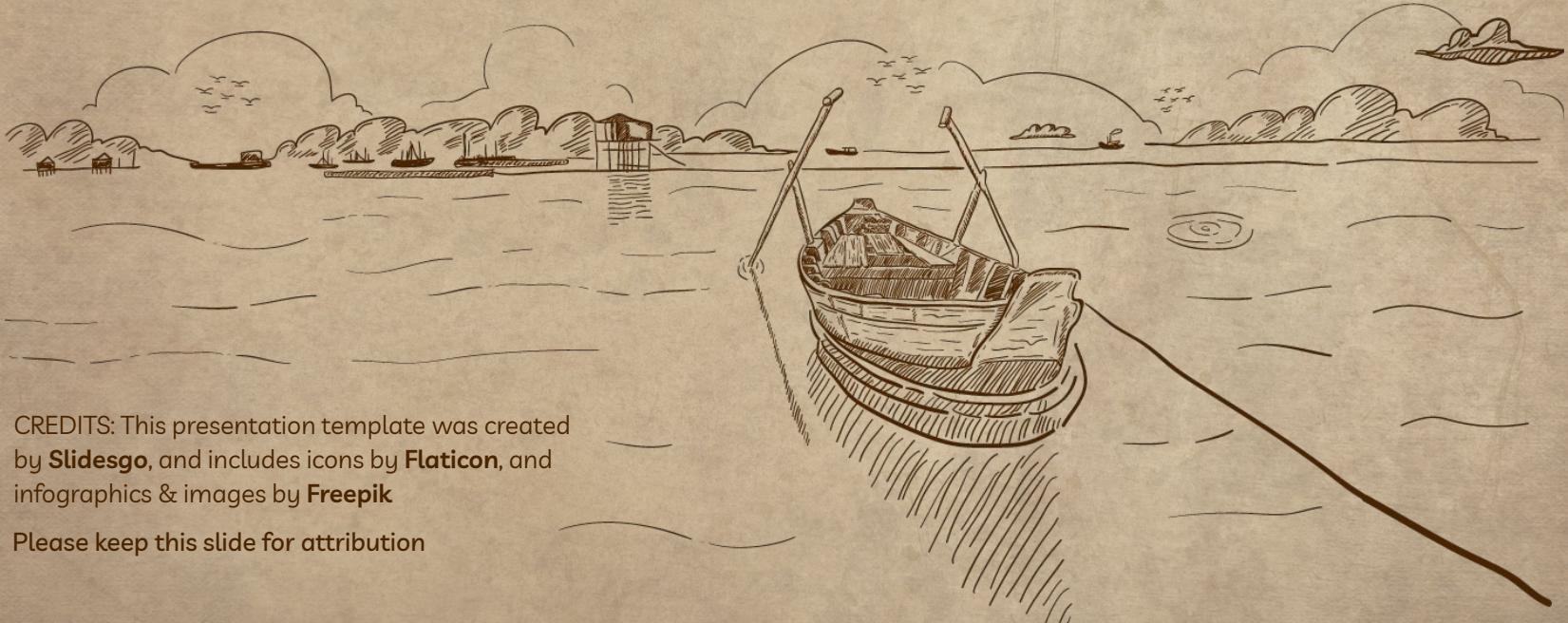
Friday, Oktober 25th @ 18:00  
Freiburg im Breisgau, Germany



# THanks

Please don't forget to like and subscribe

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ANY  
QUESTIONS?

The slides are here:  
[github.com/aerabi/talks](https://github.com/aerabi/talks)