
FACE
RECOGNITION

Face recognition

SAP Leonardo Machine Learning

Who am I?

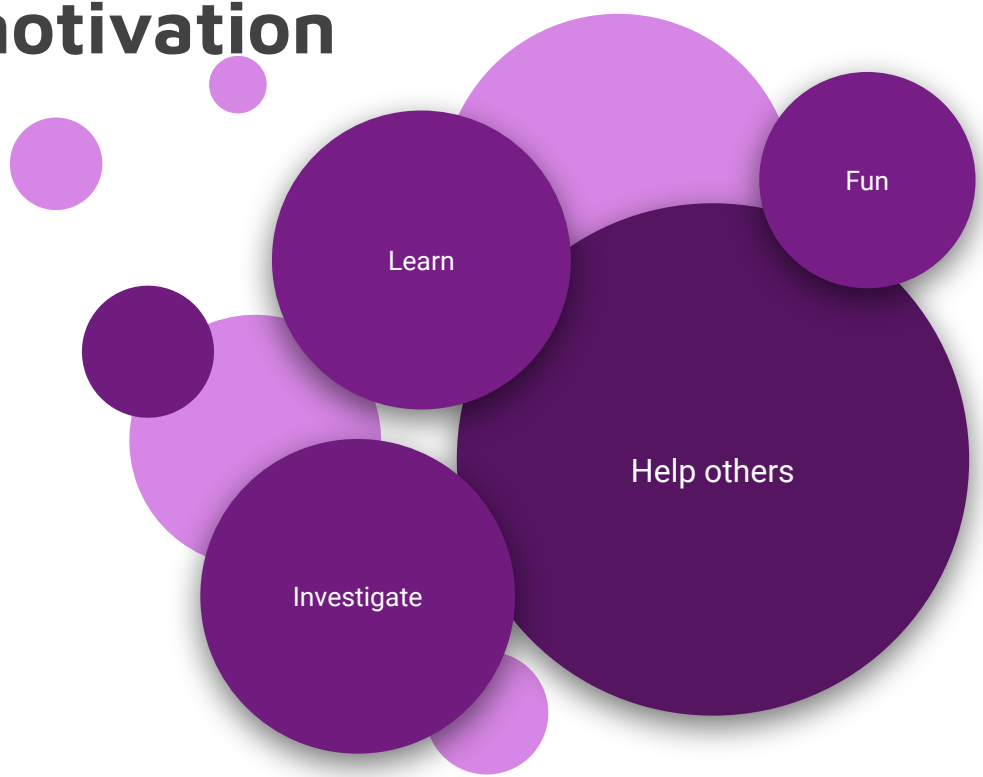
SAP Developer, Architect & Mentor

Specialized in UI5 & Fiori

Independent Consultant

What is your motivation?

My motivation

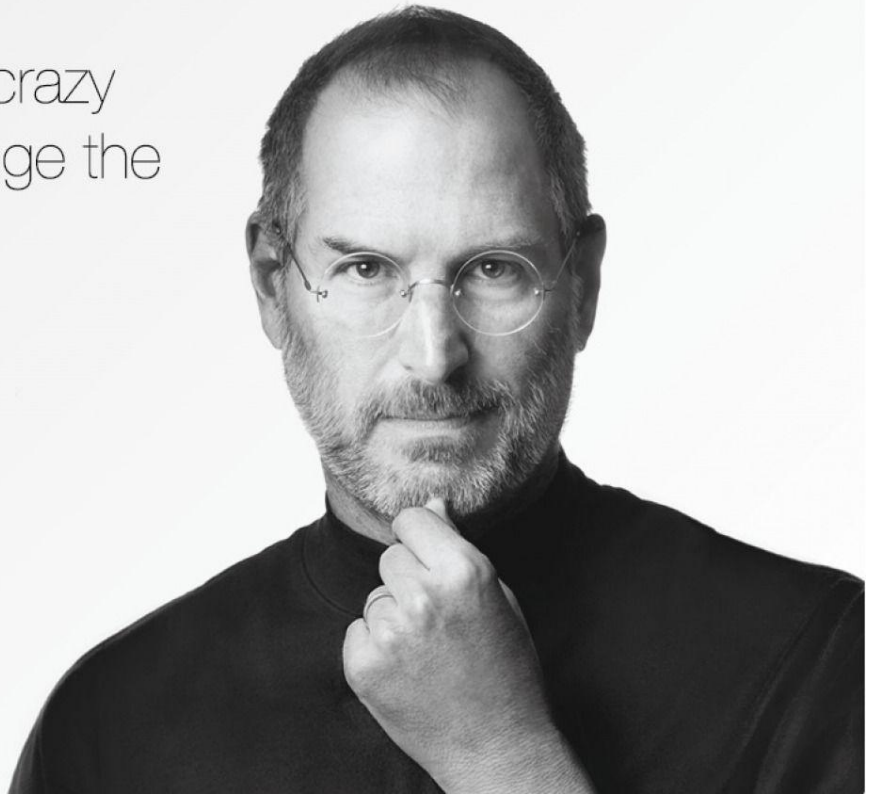



We can change
the world
and make it a better
place. It is in your hands
to make a difference.
-Nelson Mandela

Because the people who are crazy enough to think they can change the world are the ones who do.

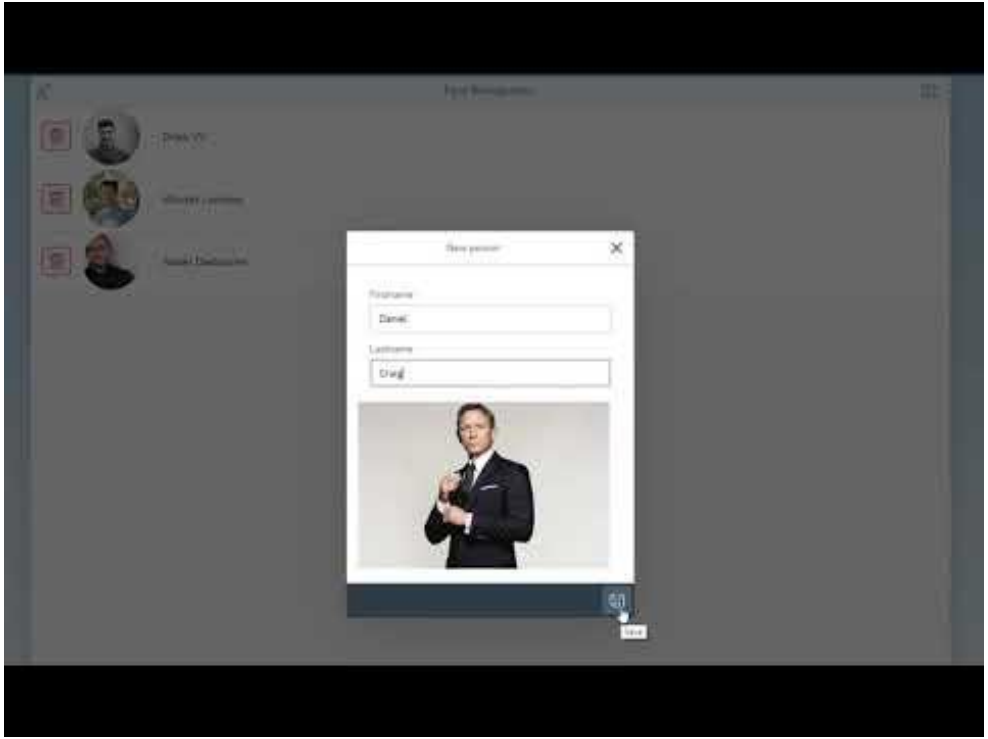
Steve Jobs

1955-2011

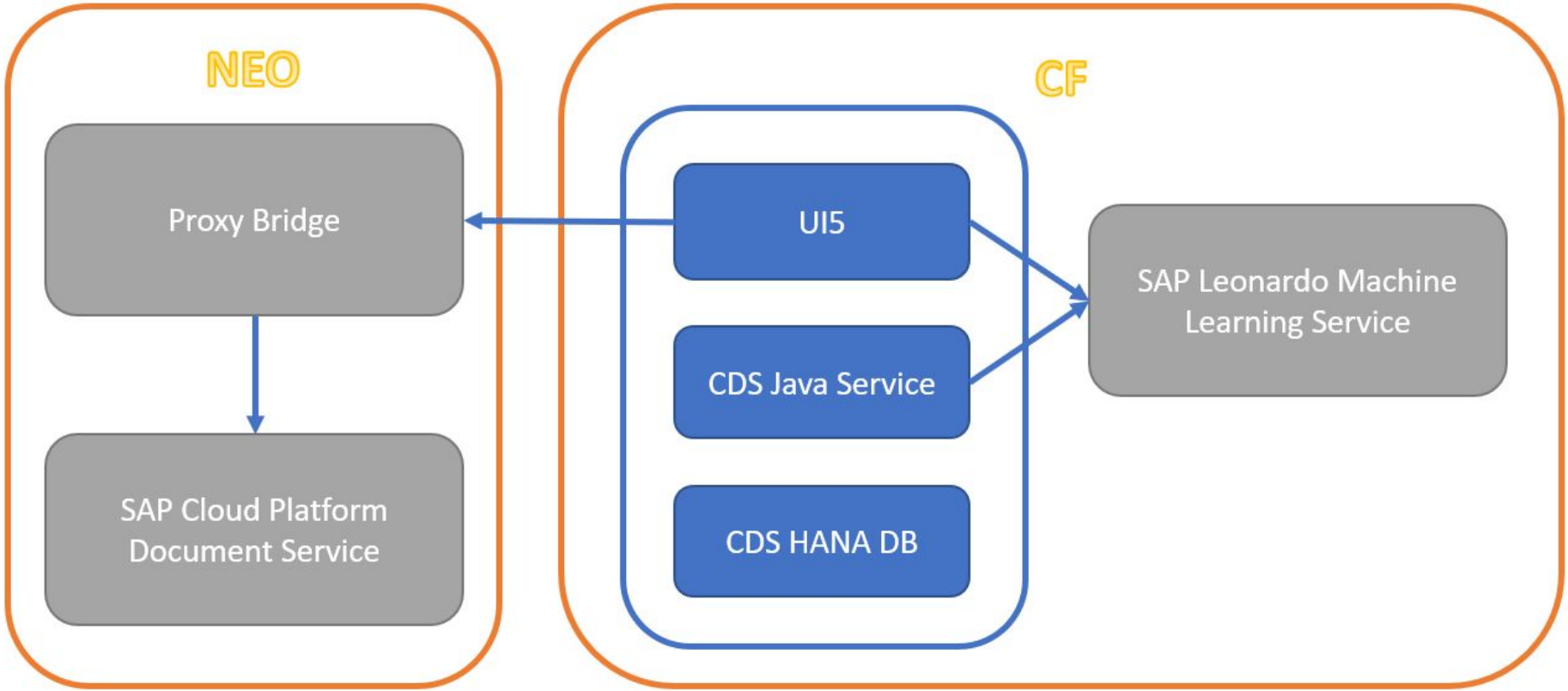


Solution

Demo



Architecture

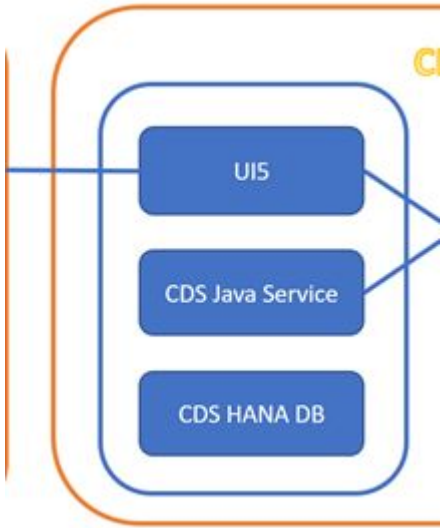


The App

Technology:

- CAP
- Java
- Machine Learning SDK
- SAP Web IDE

Store and expose Perons



Store images

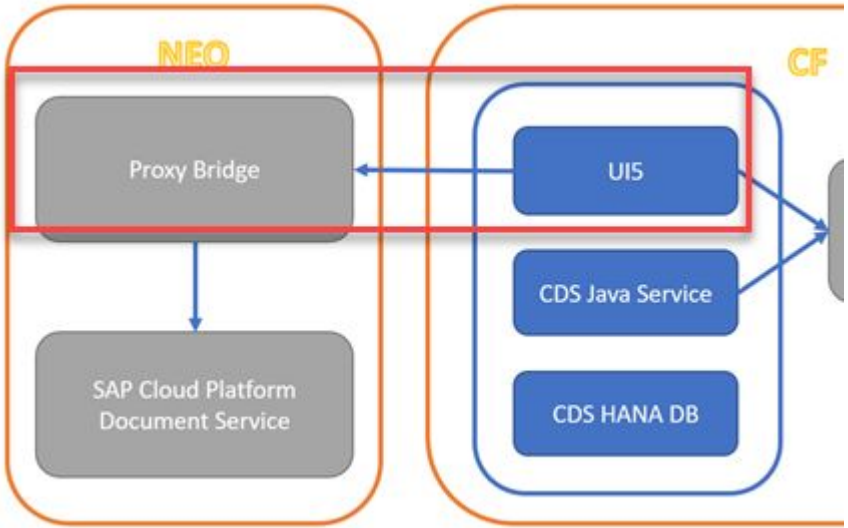
Technology:

- SCP Document Service
- Java Proxy Bridge (NEO)

Store image of a person

Example: Document Repository Viewer

https://github.com/lemaiwo/DocumentRepositoryViewer



Document Repository Viewer

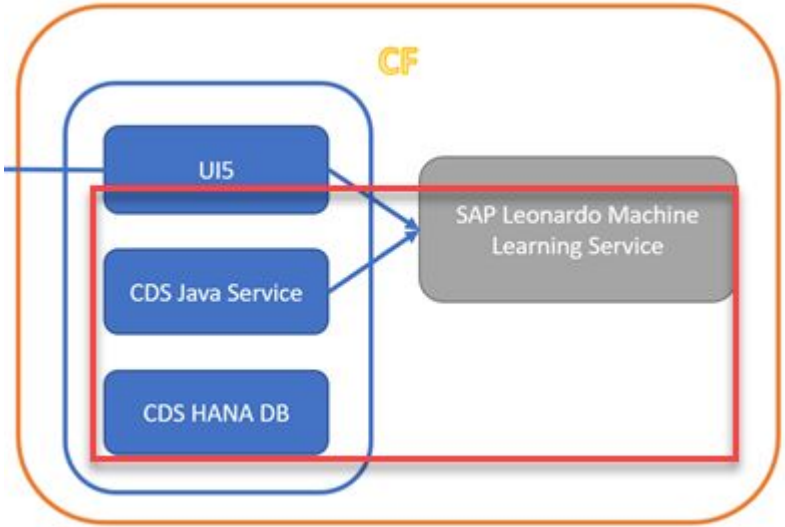
SAP Leonardo Machine Learning

Used in:

- UI
- Java Service

Used for:

- Finding a face on an image
- Search for similar faces on other images



Machine Learning - Face Recognition

FACE_FEATURE_EXTRACTION_API_URL

⇒ Find face in image and convert it to vector

IMAGE_FEATURE_EXTRACTION_URL

⇒ Converts image to vector

SIMILARITY_SCORING_URL

⇒ Compares vector (faces)

Demo

Recap Demo

1. Converted three images to vectors
2. Used one vector to search similar vector using other two vectors

Conclusion

- SAP Leonardo Machine Learning
  - Not in trial account anymore (not free)
  - No model training required
  - No real Face Recognition
- Java was not the best choice ⇒ Slow to run in SAP Web IDE
- Document Service ⇒ Documentation hard to find
- CAP is great!

What’s next?

Bigfix on Safari iOS

Handle documents by CAP (not UI)

Update version CAP

Switch to NodeJS

Use camera on mobile (instead of file upload)

References

Blog: https://blogs.sap.com/2019/10/03/the-road-to-the-face-recognition-app/

Face Recognition App: https://github.com/lemaiwo/FaceRecognition

ML App Example: https://github.com/lemaiwo/MyCAPMAppWithML

Document Repository Viewer: https://github.com/lemaiwo/DocumentRepositoryViewer

Thank You!