

Questions

What's next ?

Conclusion

What's done ?

Project Context

Introduction



CERN
openlab

Building effective Restful APIs with Oracle Rest Data Services 19

CERN Open Lab summer students' lightning talks 2

Iheb Eddine IMAD

Supervisor : Luis Rodriguez Fernandez

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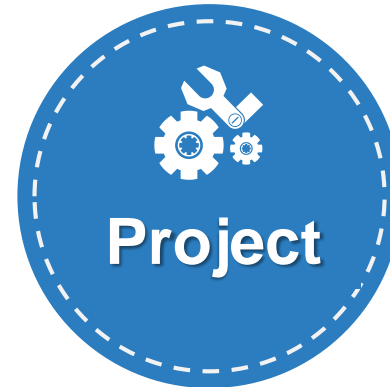
[~]\$ whoami ■

I am a fresh Computer Science Engineer...

What I've been doing at CERN ?



Luis Rodriguez
Fernandez



"Building effective Restful
APIs
with Oracle Rest Data
Services (ORDS) 19"



IT-DB-DAR

What's ORDS ?

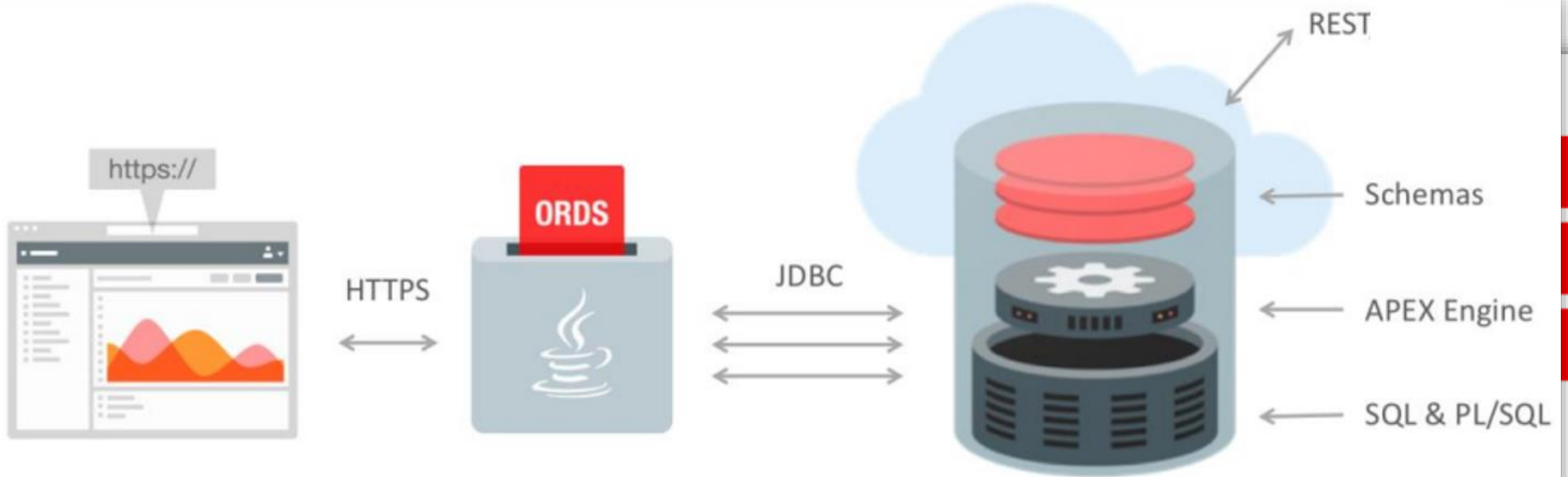
But first, REST API ... what is it and why should we care?

REST : “REpresentational State Transfer”, it's a standard way for two entities to talk to each other, based on HTTP protocol.

ORDS: Oracle REST Data Services

A mid-tier Java application, maps HTTP(S) verbs (GET, POST, PUT, DELETE, etc.) to Oracle database transactions.





Oracle REST Data Services

(Weblogic, Jetty, Tomcat)

*No Application Logic
Converts HTTP to database API calls*

Oracle Database

(Pluggable or Dedicated, 11g, 12c, 18c)

*Zero latency database data access
Dynamically driven by APEX metadata*

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ORDS 3.x

Current production infrastructure:
ORDS 3.x over
WebLogic 12.1.3...

???

ORDS 19.x

Latest version:
ORDS 19.x with
Oracle DB 19x
New features...



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Target of the project: Evaluate/test the latest ORDS version in order to be prepared for the future migration

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START

1

Getting started

- Apache Tomcat,
- ORDS, APEX, PL/SQL
- Docker, Container...

2

ORDS deployment

- Standalone
- Application server:
Apache Tomcat
- Docker



What's done ?

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Write PL/SQL automation script

- Creating the user and schema, tables....
- Enable ORDS REST service.
- Creating web services(a CRUD example)
- Protecting services using Oauth2.0

4

Testing

- **Local:** ORDS + Tomcat
Docker images + Oracle DB
image Docker
- **Integration:** Docker local
ORDS image + CERN
integration database



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Evaluation

- Open API Swagger documentation
- Statistics (ORDS & REST monitoring)

6

Cloud deployment

- CERN Platform as a Service, Hosting Service
- Oracle Cloud

FINISH



What's done ?

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ORDS 3

Current
info
OR
WebL



Latest version:
ORDS 19.x with
B 19x
ures...

ORDS 19.x



Conclusion

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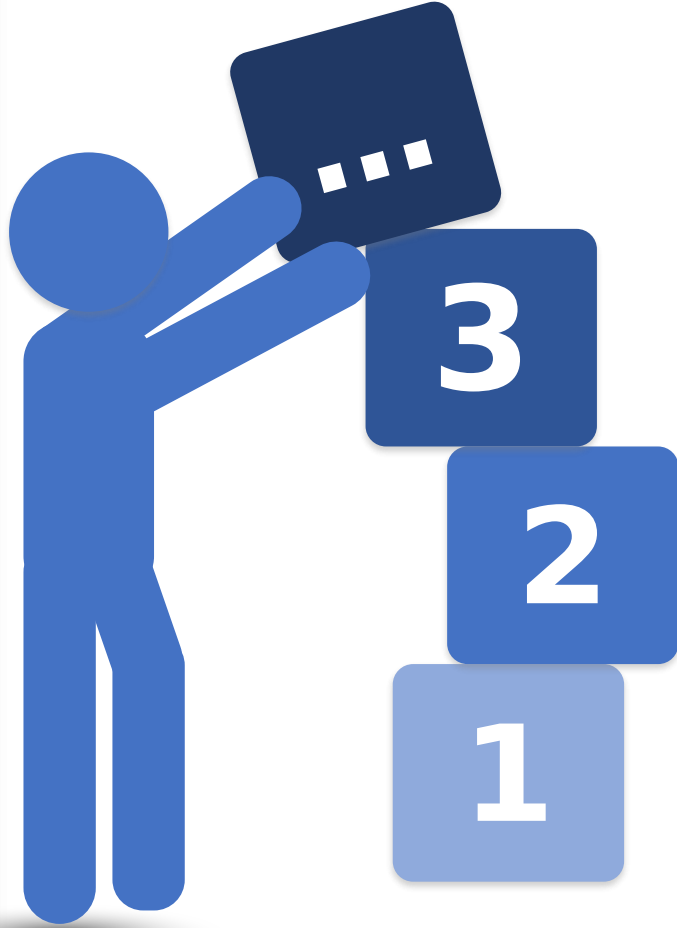
Target of the project: Evaluate/test the

latest ORDS version in order to be prepared

for the future migration

future work

Questions



- Deployment of latest version...
- Upgrade the WebLogic infrastructure
- Further tests are needed (test with SSO)...



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CONTACT

Iheb Eddine IMAD
Computer Science engineer

 [Ei_imad@esi.dz](mailto:ei_imad@esi.dz)

 [imad-iheb-eddine](https://www.linkedin.com/in/imad-iheb-eddine)

