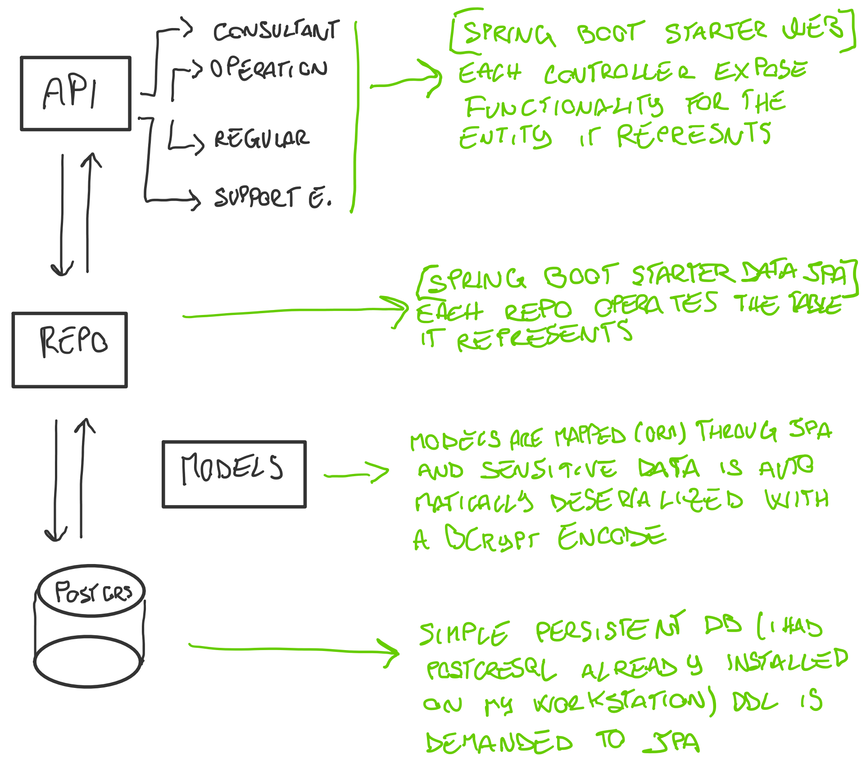
Application design and implementation

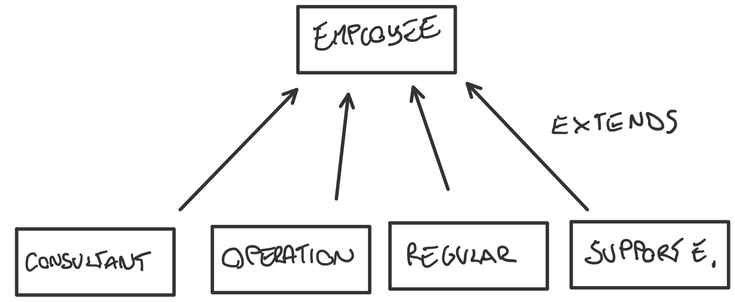
Wednesday, 18 November 2020 22:13

SERVER SIDE SOLUTION IS A SIMPLE 2-STACKS (PLUS MODELS) LAYERED SPRING BOOT APPLICATION (2.4.0):



MODEL DEFINITION

AT JPA LEVEL MODEL HIERACHY LOOKS LIKE THIS:



IMPLEMENTATION USES AN ABSTRACT SUPERCLASS (EMPLOYEE) MAPPED WITH @MAPPED SUPERCLASS ANNOTATION, THIS WILL CREATE 4 DIFFERENT TABLES WITH SOME REPEATED COLUMNS. CHOOSE HAVE BEEN MADE FOR SIMPLICITY OF EXECUTION, THIS MAY AFFECT PERFORMANCE IF THE AMOUNT OF DATA INCREASE TOO MUCH (CAN BE CHANGED WITH DIFFERENT JPA IMPL).

REPO DEFINITION

DEFAULT CRUD OPERATION ARE PROVIDE BY THE JPA REPOSITORY INTERFACE

TESTING

PERSISTENCE: UNIT TESTED EVERY REPO FUNCTIONALITY WITH AN H2 DB (TO SPEED UP THE PROCESS)

API: INTEGRATION TESTED EVERY CONTROLLER ON THE PERSISTENT DB TO ENSURE EVERYTHING IS WORKING APPLICATION WIDE. USED WEBFLUX TO CREATE REACTIVE WEB CLIENTS ON THE GO

TOOLS

ECLIPSE / MAVEN

POSTMAN

POSTGRESQL 13 (WITH TABLE PLUS)