**Back-end exam prep task** v. 2019-04-16 by JV

(Pairwork if find a pair, otherwise individual). Spend some 5-6h with this starting this morning.

**Back-end code work**

Category only, and just some, but not all of these services \_properly\_ made:

* GET (single Category by id)
* POST (single Category as JSON, excluding the id that will be auto-generated by DB)
* PUT (single Category as JSON, including the id)
* DELETE (single Category, by id)
* GET /all (multiple Categories as JSON)
* Extra: POST /insertMany (multiple Categories as JSON, excluding the ids that again will be auto-generated by DB)
* Pro: GET/all/isActive/**true** (multiple Categories as JSON, all of those who are active categories)
* Pro: GET/all/isActive/**false** (multiple Categories as JSON, all of those who are active categories)
* Pro: GET/all/budgetLimit/10000/**false** (multiple Categories as JSON, all of those whose budget limit is <= 10000)
* GET /db\_reset => would run the drop, create, insert statements to reset DB to test case situation. Only development time => would go to the checklist of things changed befor publication

1. Check the incoming request for the needed data, if faulty => 4XX errors sent back, e.g. 400.
2. Do the knex operation (see <https://knexjs.org> documentation and examples
3. In .then case handle the possible return data (GET) or rowsaffected (PUT, DELETE) or the returned created new item’s id (POST).
4. In the .catch case e.g. find out from the DB status code what happened. See given code examples
5. If no specific error code matched, return e.g. generic “400” error code.

PostMan test collection!

* Create an account with PostMan
* Create a Collection
* Create subfolders to the collection, e.g.

Collection

Category

Single

Multiple

Idea

Single

Multiple

About 4 test cases per each REST API service like the single GET:

* Successful GET with correct id Put “OK” in the name and tell why ok
* Unsuccessful GET with id that is correct but doesn’t exist in DB Put “X” in the name and tell why
* Unsuccessful GET with id missing (Also X, diff explanation)
* Unsuccessgul GET with id that is not a number, like “” or “abc” (Also X, diff explanation)

**DDL for the DB and Test data scripts for the whole database**

(Incremental way, Category, Idea, Member, …)

But just 5-20-10-5 rows in the five tables (Comments and Idea\_Members should both have 20)

**Database: Foreign key policy suggestions**

for all 5 FK:s, (=10 policies) plus some speculation for alternatives for just two of the FK:s, and why those policies maybe would be not suitable

**Optional: Data dictionary updated to match 100% the DB diagram**

DB diagram updated e.g. 2019-04-16. E.g. deletion business rules / decisions,

**Exam likely like this:**

* 20 multiple-choice questions (1. select best answer or 2. select all that apply)
* One task or drawing about back-end architecture