TÉCNICO LISBOA

DB Project

Part 3

Databases

Prof. Ana Cláudia Madeira David

Group nr.:: 177

Total Effort: 38 hours

Student's Number	Full Name	Relative effort
96098:	Tomás Gonçalves Lopes Costa Carvalho	33%
99078:	Guilherme Henrique Corrêa Carabalone	33%
99095:	João Paulo Melo Furtado	33%

Table 1: Students from the 'BDL05' shift.

Computer Science and Engineering

IST-TAGUSPARK

2021/2022

Application

The app can be found over this link: https://web.ist.utl.pt/ist199078/app.cgi/. The file structure:

```
web/
├── app.cgi
└── templates/
    ├── add_category.html
    ├── add_retailer.html
    ├── add_subcat.html
    ├── category.html
    ├── error.html
    ├── ivm.html
    ├── replenishments.html
    ├── retailer.html
    └── subcat.html
```

Archive's relations

The purpose of each file:

CGI	
app.cgi	The script executed by the web client, containing render instructions, SQL instructions and the routing of the app.
Templates	
add_category.html	Template to add a new super category.
add_retailer.html	Template to add a new retailer.
category.html	Template to list all the categories, both simple and super.
error.html	Template to generate an error.
ivm.html	Template to list all the IVMs.
replenishments.html	Template to list all the replenishments of an IVM.
retailer.html	Template to list all retailers.
subcat.html	Template to list all the categories that are categories of the argument(the category chosen).

Indexes

Point 7 from the Databases 3rd delivery draft:

7.1)

```
CREATE INDEX index\_cat\_name ON responsable\_for(category)
```

It is not necessary to generate an index for TIN, since it is a primary key of retailer and foreignkey of responsible_for. ‘P.nome_cat = ’Frutos’‘ has a high selectivity pick.

7.2)

```
CREATE INDEX index\_cat\_name ON product(product\_category)
CREATE INDEX index\_product\_descr ON product(descr)
CREATE INDEX index\_cat\_name ON has\_category(category\_name)
```

It is necessary to generate an index for both product_category and category_name because they are foreign keys on other tables that are not product nor has_catagory. We know that the description of the product starts with ’A’, so makes sense to use the index.