Georges Youssef - 103070491 COS20015 — FUNDAMENTALS OF DATA MANAGEMENT

Credit Task 5.2.1

Company Relations Database

```
CREATE DATABASE test;
USE test;
CREATE TABLE Employee
    emp id INT(10) UNSIGNED not null,
    emp fname VARCHAR(30) not null,
    tmp lname VARCHAR(30) not null,
    emp bdate DATE not null,
    emp address VARCHAR(255) not null,
    emp_gender CHAR(1) CHECK(emp_gender = 'M' OR emp_gender = 'F' OR
emp gender = 'U'),
    dept id INT(10) UNSIGNED not null,
    super id INT(10) UNSIGNED not null,
    PRIMARY KEY (emp id),
    FOREIGN KEY (dept id) REFERENCES Department (dept id),
    FOREIGN KEY (super id) REFERENCES Employee (emp id)
);
CREATE TABLE Department
    dept id INT(10) UNSIGNED not null,
    dept name VARCHAR (40) not null,
    mgr id INT(10) UNSIGNED not null,
    mgr start date DATE not null,
    PRIMARY KEY(dept id),
    FOREIGN KEY (mgr id) REFERENCES Employee (emp id)
);
CREATE TABLE Project
    proj id INT(10) UNSIGNED not null,
    proj name CHAR(40) not null,
    proj loc CHAR(40) not null,
    dept_id INT(10) UNSIGNED not null,
    PRIMARY KEY(proj id),
    FOREIGN KEY (dept id) REFERENCES Department (dept id)
);
CREATE TABLE Works on
    proj_id INT(10) UNSIGNED not null,
    emp id INT(10) UNSIGNED not null,
    role CHAR(30) not null,
    salary factor DECIMAL(2,1) not null DEFAULT 0 CHECK(salary factor >=
0.00),
    hours FLOAT UNSIGNED not null,
    role comment VARCHAR (255) not null,
    PRIMARY KEY(proj_id, emp_id),
    FOREIGN KEY (proj id) REFERENCES Project (proj id),
```

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```
FOREIGN KEY(emp_id) REFERENCES Employee(emp_id)
);

CREATE TABLE Salary
(
    emp_id INT(10) UNSIGNED not null,
    salary DECIMAL(20,4) UNSIGNED not null,
    start_date DATE not null,

PRIMARY KEY(emp_id, start_date),
    FOREIGN KEY(emp_id) references Employee(emp_id)
);
```