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# HW 2 – Data Bases

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**Question 1:**

-- 1. Names of physicians who were on duty on 01/01/2011

**SELECT** p**.**first\_name**,** p**.**last\_name

**FROM** Physicians p

**JOIN** Shifts s **ON** p**.**physician\_id **=** s**.**physician\_id

**WHERE** s**.**date **=** '2011-01-01'**;**

-- 2. Details of the physicians (physician ID, first name, last name) who were on duty on 01/01/2011 and started to work at 13:00

**SELECT** p**.**physician\_id**,** p**.**first\_name**,** p**.**last\_name

**FROM** Physicians p

**JOIN** Shifts s **ON** p**.**physician\_id **=** s**.**physician\_id

**WHERE** s**.**date **=** '2011-01-01' **AND** s**.**start\_time **=** '13:00'**;**

-- 3. Show the expertise domain of the physicians "Dana" and "Alice"

**SELECT** e**.**expertise

**FROM** Expertise e

**JOIN** Physicians p **ON** e**.**physician\_id **=** p**.**physician\_id

**WHERE** p**.**first\_name **IN** **(**'Dana'**,** 'Alice'**);**

-- 4. Show the physician's details (physician ID, first name, last name) who has the most expertise domains

**SELECT** p**.**physician\_id**,** p**.**first\_name**,** p**.**last\_name

**FROM** Physicians p

**JOIN** Expertise e **ON** p**.**physician\_id **=** e**.**physician\_id

**GROUP** **BY** p**.**physician\_id**,** p**.**first\_name**,** p**.**last\_name

**ORDER** **BY** **COUNT(\*)** **DESC**

**LIMIT** 1**;**

-- 5. Show the patient (patient ID, first name, last name) who received the most (different) treatments

**SELECT** pt**.**patient\_id**,** pt**.**first\_name**,** pt**.**last\_name

**FROM** Patients pt

**JOIN** Patient\_Treatments ptmt **ON** pt**.**patient\_id **=** ptmt**.**patient\_id

**GROUP** **BY** pt**.**patient\_id**,** pt**.**first\_name**,** pt**.**last\_name

**ORDER** **BY** **COUNT(DISTINCT** ptmt**.**treatment\_code**)** **DESC**

**LIMIT** 1**;**

-- 6. Details of the patients (patient ID, first name, last name) who received more than three different treatments

**SELECT** pt**.**patient\_id**,** pt**.**first\_name**,** pt**.**last\_name

**FROM** Patients pt

**JOIN** Patient\_Treatments ptmt **ON** pt**.**patient\_id **=** ptmt**.**patient\_id

**GROUP** **BY** pt**.**patient\_id**,** pt**.**first\_name**,** pt**.**last\_name

**HAVING** **COUNT(DISTINCT** ptmt**.**treatment\_code**)** **>** 3**;**

-- 7. Details of the patients (patient ID, first name, last name) who did not receive any treatment

**SELECT** p**.**patient\_id**,** p**.**first\_name**,** p**.**last\_name

**FROM** Patients p

**LEFT** **JOIN** Patient\_Treatments pt **ON** p**.**patient\_id **=** pt**.**patient\_id

**WHERE** pt**.**patient\_id **IS** **NULL;**

-- 8. Details of patients who have not made any progress in their treatment (no comment in the Patient progress table)

**SELECT** p**.**patient\_id**,** p**.**first\_name**,** p**.**last\_name

**FROM** Patients p

**LEFT** **JOIN** Patient\_Progress pp **ON** p**.**patient\_id **=** pp**.**patient\_id

**WHERE** pp**.**patient\_id **IS** **NULL;**

-- 9. The patient in whose condition the most progress has been made (appears most often in the comments in the Patient progress table)

**SELECT** p**.**patient\_id**,** p**.**first\_name**,** p**.**last\_name

**FROM** Patients p

**JOIN** Patient\_Progress pp **ON** p**.**patient\_id **=** pp**.**patient\_id

**GROUP** **BY** p**.**patient\_id**,** p**.**first\_name**,** p**.**last\_name

**ORDER** **BY** **COUNT(\*)** **DESC**

**LIMIT** 1**;**

-- 10. Add a new record to the patient progress table (details as you wish)

**INSERT** **INTO** Patient\_Progress **(**patient\_id**,** treatment\_code**,** physician\_id**,** initial\_status\_description**,** current\_status\_description**,** treatment\_end\_date**)**

**VALUES** **(**'123'**,** 'ABC'**,** '456'**,** 'Initial status'**,** 'Current status'**,** '2023-06-10'**);**

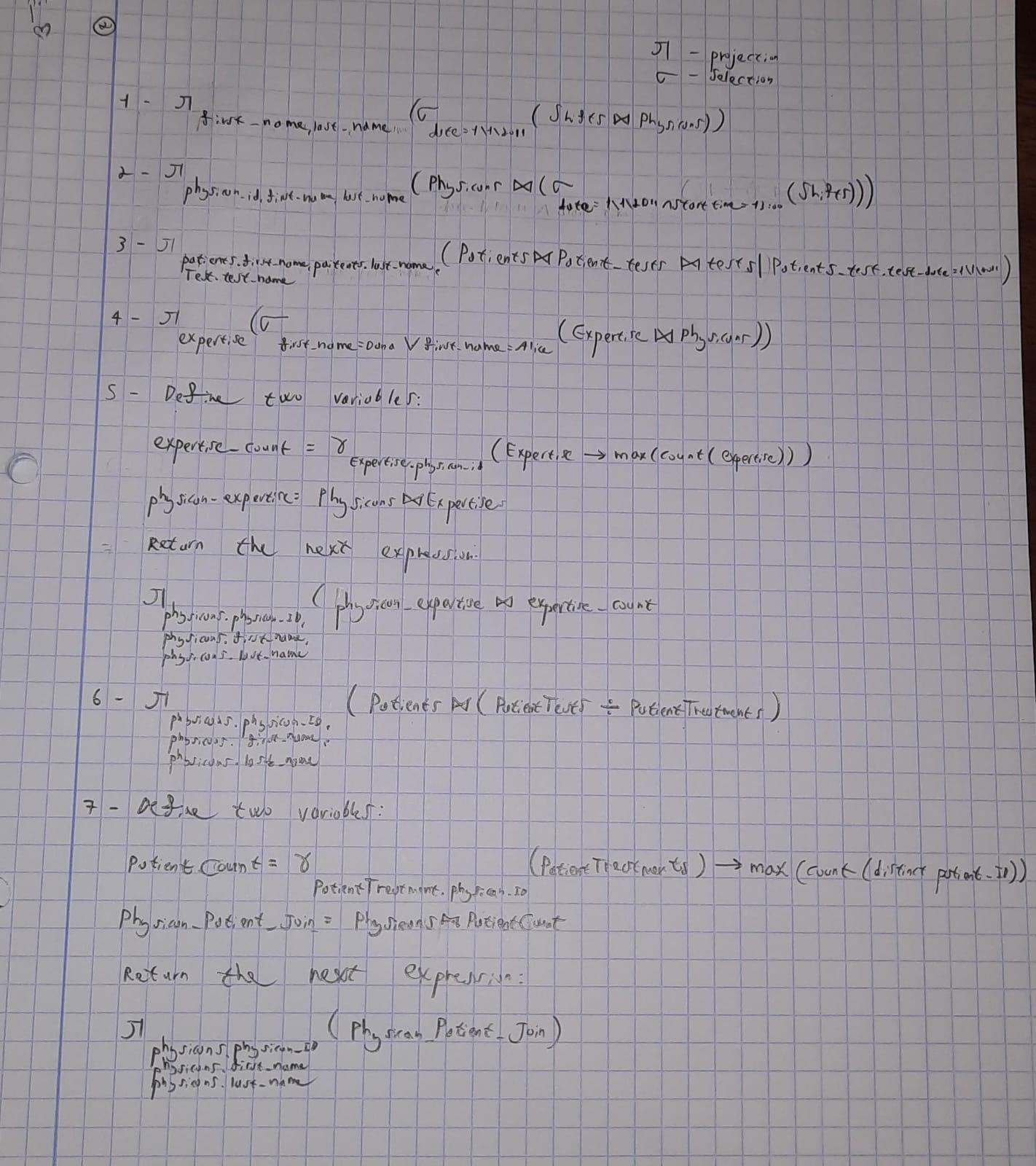
-- 11. Update the degree of an employee whose patient ID is '222' to 'Phd'

**UPDATE** Physicians

**SET** degree **=** 'Phd'

**WHERE** physician\_id **=** '222'**;**

**Question 2:**



**Question 3:**

-- 1. Names of physicians who were on duty on 01/01/2011

**SELECT** p**.**first\_name**,** p**.**last\_name

**FROM** Physicians p

**JOIN** Shifts s **ON** p**.**physician\_id **=** s**.**physician\_id

**WHERE** s**.**date **=** '2011-01-01'**;**

-- 2. Details of the physicians (physician ID, first name, last name) who were on duty on 01/01/2011 and started to work at 13:00

**SELECT** p**.**physician\_id**,** p**.**first\_name**,** p**.**last\_name

**FROM** Physicians p

**JOIN** Shifts s **ON** p**.**physician\_id **=** s**.**physician\_id

**WHERE** s**.**date **=** '2011-01-01' **AND** s**.**start\_time **=** '13:00'**;**

-- 3. Show the expertise domain of the physicians "Dana" and "Alice"

**SELECT** e**.**expertise

**FROM** Expertise e

**JOIN** Physicians p **ON** e**.**physician\_id **=** p**.**physician\_id

**WHERE** p**.**first\_name **IN** **(**'Dana'**,** 'Alice'**);**

-- 4. Show the physician's details (physician ID, first name, last name) who has the most expertise domains

**SELECT** p**.**physician\_id**,** p**.**first\_name**,** p**.**last\_name

**FROM** Physicians p

**JOIN** Expertise e **ON** p**.**physician\_id **=** e**.**physician\_id

**GROUP** **BY** p**.**physician\_id**,** p**.**first\_name**,** p**.**last\_name

**ORDER** **BY** **COUNT(\*)** **DESC**

**LIMIT** 1**;**

-- 5. Show the patient (patient ID, first name, last name) who received the most (different) treatments

**SELECT** pt**.**patient\_id**,** pt**.**first\_name**,** pt**.**last\_name

**FROM** Patients pt

**JOIN** Patient\_Treatments ptmt **ON** pt**.**patient\_id **=** ptmt**.**patient\_id

**GROUP** **BY** pt**.**patient\_id**,** pt**.**first\_name**,** pt**.**last\_name

**ORDER** **BY** **COUNT(DISTINCT** ptmt**.**treatment\_code**)** **DESC**

**LIMIT** 1**;**

-- 6. Details of the patients (patient ID, first name, last name) who received more than three different treatments

**SELECT** pt**.**patient\_id**,** pt**.**first\_name**,** pt**.**last\_name

**FROM** Patients pt

**JOIN** Patient\_Treatments ptmt **ON** pt**.**patient\_id **=** ptmt**.**patient\_id

**GROUP** **BY** pt**.**patient\_id**,** pt**.**first\_name**,** pt**.**last\_name

**HAVING** **COUNT(DISTINCT** ptmt**.**treatment\_code**)** **>** 3**;**

-- 7. Details of the patients (patient ID, first name, last name) who did not receive any treatment

**SELECT** p**.**patient\_id**,** p**.**first\_name**,** p**.**last\_name

**FROM** Patients p

**LEFT** **JOIN** Patient\_Treatments pt **ON** p**.**patient\_id **=** pt**.**patient\_id

**WHERE** pt**.**patient\_id **IS** **NULL;**

-- 8. Details of patients who have not made any progress in their treatment (no comment in the Patient progress table)

**SELECT** p**.**patient\_id**,** p**.**first\_name**,** p**.**last\_name

**FROM** Patients p

**LEFT** **JOIN** Patient\_Progress pp **ON** p**.**patient\_id **=** pp**.**patient\_id

**WHERE** pp**.**patient\_id **IS** **NULL;**

-- 9. The patient in whose condition the most progress has been made (appears most often in the comments in the Patient progress table)

**SELECT** p**.**patient\_id**,** p**.**first\_name**,** p**.**last\_name

**FROM** Patients p

**JOIN** Patient\_Progress pp **ON** p**.**patient\_id **=** pp**.**patient\_id

**GROUP** **BY** p**.**patient\_id**,** p**.**first\_name**,** p**.**last\_name

**ORDER** **BY** **COUNT(\*)** **DESC**

**LIMIT** 1**;**

-- 10. Add a new record to the patient progress table (details as you wish)

**INSERT** **INTO** Patient\_Progress **(**patient\_id**,** treatment\_code**,** physician\_id**,** initial\_status\_description**,** current\_status\_description**,** treatment\_end\_date**)**

**VALUES** **(**'123'**,** 'ABC'**,** '456'**,** 'Initial status'**,** 'Current status'**,** '2023-06-10'**);**

-- 11. Update the degree of an employee whose patient ID is '222' to 'Phd'

**UPDATE** Physicians

**SET** degree **=** 'Phd'

**WHERE** physician\_id **=** '222'**;**