

CORRECTION EXERCICES CH2

Exercice 1

Question 0

Exercice 5

Question 0

1. (Clément Lorieau)

```
SELECT DISTINCT SKNOM  
FROM SKIPPERS  
NATURAL JOIN CROISIERES  
WHERE DEPPORT = 'AJACCIO';
```

2

**select croisnum from CROISIERES natural join BATEAUX where
capacite > 10;**

Nathan Boissay

3

**select croisnum, sknom, batnom from BATEAUX natural join CROISIERES natural
join SKIPPERS;**

Nathan Boissay

4

```
SELECT C.CROISNUM  
FROM CROISIERES C  
JOIN SKIPPERS S ON C.ARRPORT = S.SKPORT  
WHERE S.SKNOM = 'PAUL';
```

--ou

```
SELECT C.CROISNUM
```

FROM CROISIERES C, SKIPPERS s

WHERE C.ARRPORT = S.SKPORT AND S.SKNOM = 'PAUL';

Thibaut Renaut

--ou

SELECT C.CROISNUM

FROM CROISIERES , SKIPPERS

WHERE CROISIERES.ARRPORT = SKIPPERS..SKPORT AND SKIPPERS.SKNOM = 'PAUL';

(Mouhamadou DIAO)

-- Ou

**select croisnum from CROISIERES where arrport in (SELECT skport from SKIPPERS
where sknom = 'PAUL');**

Nathan Boissay

5

Question1

HAMITI Taous , HAMMICHE Imen “Version All”

SELECT DISTINCT SKNOM

FROM SKIPPERS s

JOIN CROISIERES c ON s.SKNUM = c.SKNUM

JOIN BATEAUX b ON c.BATNUM = b.BATNUM

WHERE b.CAPACITE < ALL (

SELECT CAPACITE

FROM BATEAUX

WHERE BATPORT = 'AJACCIO'

);

(Mouhamadou DIAO)

Verssion sans all

```
SELECT skiper.sknum
FROM bataux, skiper, croisiere
WHERE skiper.sknum = croisiere.sknum
AND bataux.batnum = croisiere.batnum
AND bataux.capacite < (
    SELECT MIN(bataux.capacite)
    FROM bataux
    WHERE bataux.batport = 'Ajaccio'
);
```

Clément Lorieau

VERSION IN :

```
SELECT DISTINCT SKNOM
FROM CROISIERES
    NATURAL JOIN SKIPPERS
WHERE BATNUM IN (
    SELECT BATNUM
    FROM BATEAUX
    WHERE CAPACITE < (
        SELECT MIN(CAPACITE)
        FROM BATEAUX
        WHERE BATPORT = 'AJACCIO'
    )
);
```

Question 2 (Sanna Thomas)

```
SELECT sknom, COUNT(croisnum)
FROM croisieres
```

```
JOIN skippers USING(sknum)
GROUP BY sknom
HAVING COUNT(croisnum) >= 2
```

Question 3 (Mars Manon)

```
SELECT batnum, COUNT(croisnum)
FROM bateaux NATURAL JOIN croisieres
WHERE capacite > 5
GROUP BY batnum
HAVING COUNT(croisnum) >= 3
```

Question 4

(SANNA Thomas) avec sous-requête

```
SELECT sknum
FROM skippers
JOIN croisieres USING(sknum)
JOIN bateaux USING(batnum)
WHERE batport = 'AJACCIO'
GROUP BY sknum
HAVING COUNT(DISTINCT batnum) = (
    SELECT COUNT(batnum)
    FROM bateaux
    WHERE batport = 'AJACCIO'
)
```

-- avec NOT EXISTS

```
SELECT SKIPPERS.SKONOM
FROM SKIPPERS
WHERE NOT EXISTS (
    SELECT 1
    FROM BATEAUX
```

```
WHERE BATEAUX.BATPORT = 'AJACCIO'

AND NOT EXISTS (

SELECT 1

FROM CROISIERES

WHERE CROISIERES.SKNUM = SKIPPERS.SKNUM AND CROISIERES.BATNUM =
BATEAUX.BATNUM

)

);

Thibaut Renault
```

5.5

(Simon Cossais)

```
SELECT b.batnom, (c.arrdate - c.depdata) AS duree

FROM bateaux AS b

JOIN croisieres AS c

ON b.batnum = c.batnum

WHERE (c.arrdate - c.depdata) = (

SELECT MAX(arrdate - depdate)

FROM croisieres

);
```

--autre solution

```
SELECT b.BATNOM, (ARRDATE - DEPDATE) AS Duree

FROM BATEAUX b JOIN CROISIERES c ON b.BATNUM = c.BATNUM

ORDER BY Duree DESC

FETCH FIRST 1 ROW ONLY;
```

5.6

Clément Lorieau

```
SELECT DISTINCT SKIPPERS.SKNOM
FROM SKIPPERS
WHERE EXISTS (
    SELECT 1
    FROM BATEAUX
    WHERE BATEAUX.BATPORT = SKIPPERS.SKPORT
    AND NOT EXISTS (
        SELECT 1
        FROM CROISIERES
        WHERE CROISIERES.BATNUM = BATEAUX.BATNUM
    )
);
```

EXO 5 Question 6 (Meldi)

-- Quels sont les noms des skippers qui habitent dans un port dans lequel sont localisés des bateaux qui ne font aucune croisières?

```
SELECT skippers.sknom FROM skippers INNER JOIN bateaux ON skippers.skport =
bateaux.batport WHERE bateaux.batnum not in ( SELECT DISTINCT batnum FROM
croisieres )
```

EXO 5 question 6 (chatGPT)

```
SELECT DISTINCT SK.SKNOM
FROM SKIPPERS SK
WHERE SK.SKPORT IN (
    SELECT B.BATPORT
    FROM BATEAUX B
    LEFT JOIN CROISIERES CR ON B.BATNUM = CR.BATNUM
    WHERE CR.BATNUM IS NULL
)
```

EXERCICE 6 (Yanis BELLAHCENE)

```
select croisnum,  
  
CASE  
  
WHEN (arrdate - depdate) <= 2 THEN 'Courte'  
  
WHEN (arrdate - depdate) > 7 THEN 'Longue'  
  
ELSE 'Moyenne'  
  
END  
  
from croisières
```

Exercice 7 page 98

1) (JAMHOUR Yousra)

```
CREATE VIEW SKIPMOY AS  
  
SELECT sknum,sknom,skport  
  
FROM SKIPPERS  
  
WHERE salaire > ( select avg(salaire) from skippers)
```

2) (Yanis BELLAHCENE)

```
select DISTINCT skport  
  
from skipmoy
```

--3 Thibaut Renault

Suite à un changement dans l'organisation de l'entreprise, un Skipper peut à présent être attaché à plusieurs ports de localisation.

Supprimer la vue skipmoy au préalable si elle existe :

```
DROP VIEW IF EXISTS SKIPMOY;
```

-- 1

```

CREATE TABLE SKIPPER_PORTS (

    SKNUM VARCHAR(5) NOT NULL

        REFERENCES SKIPPERS(SKNUM) ON DELETE CASCADE,

    SKPORT VARCHAR(50) NOT NULL,

    CONSTRAINT pk_skipper_ports PRIMARY KEY (SKNUM, SKPORT)

);

-- Migrer l'existant

INSERT INTO SKIPPER_PORTS (SKNUM, SKPORT)

SELECT SKNUM, SKPORT

FROM SKIPPERS

WHERE SKPORT IS NOT NULL;

-- Ajouter les nouveaux ports demandés

INSERT INTO SKIPPER_PORTS (SKNUM, SKPORT) VALUES

('1', 'PROPRIANO'), -- JEAN avait déjà AJACCIO via la migration

('3', 'NICE'); -- LAURA avait déjà ANTIBES via la migration


ALTER TABLE SKIPPERS DROP COLUMN SKPORT;


CREATE OR REPLACE VIEW SKIPMOY AS

SELECT s.sknum, s.sknom, sp.skport

FROM SKIPPERS s JOIN SKIPPER_PORTS sp USING (sknum)

WHERE s.salaire > (SELECT AVG(salaire) FROM SKIPPERS);

```

Exercice 8

SANNA Thomas

```
CREATE MATERIALIZED VIEW SKIP_PAR_BATEAU AS
SELECT BATNUM, BATNOM, COUNT(SKNUM) AS NOMBRE_SKIPPER, SUM(SALAIRE) AS TOTAL_SALAIRE
FROM BATEAUX
JOIN CROISIERES USING (BATNUM)
JOIN SKIPPER USING (SKNUM)
GROUP BY BATNUM, BATNOM
```

-- solution sans using (Simon Cossais)

```
CREATE MATERIALIZED VIEW exo8 AS

SELECT b.batnum, b.batnom, COUNT(s.sknum) as nb_skipper, SUM(salaire) AS
total_salaire

FROM bateaux AS b

JOIN croisieres AS c ON b.batnum = c.batnum

JOIN skipper AS s ON c.sknum = s.sknum

GROUP BY b.batnum, b.batnom

;
```

Exercice 9 - Requete avec CTE (WITH)

```
WITH DureeCroisiere AS (

SELECT c.croisnum, (c.arrdate - c.depdate) AS duree

FROM croisieres c

)

SELECT c.batnum, SUM(d.duree)

FROM croisieres c

JOIN DureeCroisiere d ON c.croisnum = d.croisnum
```

GROUP BY c.batnum

Exercise 10

1. /2. Lucas Bolarin

1.

```
select column_name
from information_schema.columns
where Table_name='croisieres';
```

2.

```
select data_type
from information_schema.columns
where table_name='skippers' and column_name='skport'
```

3) Nathan Boissay

```
select count(table_name), table_name from information_schema.columns
where table_schema = 'public' GROUP BY table_name
```

4) SANNA Thomas

```
WITH nb_col_table AS(
    SELECT table_name, COUNT(*) AS nb_col
    FROM information_schema.columns
    WHERE table_schema = 'public'
    GROUP BY table_name
)

SELECT AVG(nb_col) AS nombre_moy_col_bdcroisieres
FROM nb_col_table
```

Exercise 11.1 (Yanis BELLAHCENE)

```
SELECT batnum, croisnum, depdate, arrdate, depport,  
  
       ROW_NUMBER() over (PARTITION BY c.batnum ORDER BY c.depdate) as  
rang_croisiere  
  
FROM CROISIERES c  
  
where depport = 'BASTIA'
```

Exercise 11.2

```
WITH cte_lag AS(  
    SELECT  
        batnom,  
        croisnum,  
        depdate,  
        LAG(depdate) OVER (PARTITION BY batnom ORDER BY depdate) AS date_precedente,  
        (depdate - (LAG(depdate) OVER (PARTITION BY batnom ORDER BY depdate))) AS  
delta_jours,  
        ROW_NUMBER() OVER (PARTITION BY batnom ORDER BY depdate DESC) AS row_nb  
    FROM bateaux  
    JOIN croisiere USING(batnum)  
    ORDER BY batnom  
)  
  
SELECT batnom, croisnum, depdate as derniere_croisiere, date_precedente, delta_jours  
FROM cte_lag  
WHERE row_nb = 1
```