

# Exercices CM - JOINS

# Exercice 1

Donner les nom et adresse de personnes avec les noms de bars qu'ils fréquentent

Bars

name	addr	license	openDate
Australia Hotel	The Rocks	123456	12/1/1940
Coogee Bay Hotel	Coogee	966500	31/8/1980
Rose Bay Hotel	Rose Bay	966410	31/8/1920
Lord Nelson	The Rocks	123888	11/11/1920
Marble Bar	Sydney	122123	1/4/2001
Regent Hotel	Kingsford	987654	29/2/2000
Royal Hotel	Randwick	938500	26/6/1986

Drinkers

name	addr	phone
Adam	Randwick	9385-4444
Gernot	Newtown	9415-3378
John	Clovelly	9665-1234
Justin	Mosman	9845-4321
Marie	Rose Bay	9371-2126
Adrian	Redfern	9371-1244

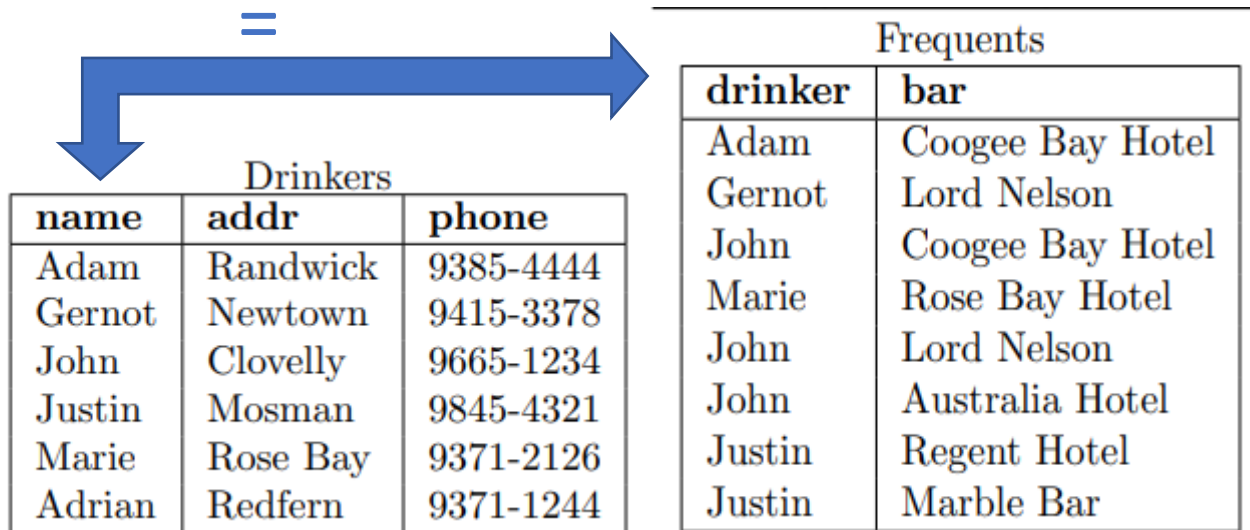
Frequents

drinker	bar
Adam	Coogee Bay Hotel
Gernot	Lord Nelson
John	Coogee Bay Hotel
Marie	Rose Bay Hotel
John	Lord Nelson
John	Australia Hotel
Justin	Regent Hotel
Justin	Marble Bar

# Exercice 1

Donner les nom et adresse de personnes avec les noms de bars qu'ils fréquentent

```
SELECT name, addr, bar
FROM Drinkers JOIN Frequent ON (name = drinker);
```



SQL 1

```
1 SELECT *
2 FROM Drinkers JOIN Frequent ON (name = drinker);
```

	name	addr	phone	drinker	bar
1	Adam	Randwick	9385-4444	Adam	Coogee Bay Hotel
2	Gernot	Newtown	9415-3378	Gernot	Lord Nelson
3	John	Clovelly	9665-1234	John	Australia Hotel
4	John	Clovelly	9665-1234	John	Coogee Bay Hotel
5	John	Clovelly	9665-1234	John	Lord Nelson
6	Justin	Mosman	9845-4321	Justin	Marble Bar
7	Justin	Mosman	9845-4321	Justin	Regent Hotel
8	Marie	Rose Bay	9371-2126	Marie	Rose Bay Hotel

# Exercice 2

Donner les nom et adresse de personnes avec les noms de bars qu'ils fréquentent.  
Donner aussi l'adresse du bar.

Bars			
name	addr	license	openDate
Australia Hotel	The Rocks	123456	12/1/1940
Coogee Bay Hotel	Coogee	966500	31/8/1980
Rose Bay Hotel	Rose Bay	966410	31/8/1920
Lord Nelson	The Rocks	123888	11/11/1920
Marble Bar	Sydney	122123	1/4/2001
Regent Hotel	Kingsford	987654	29/2/2000
Royal Hotel	Randwick	938500	26/6/1986

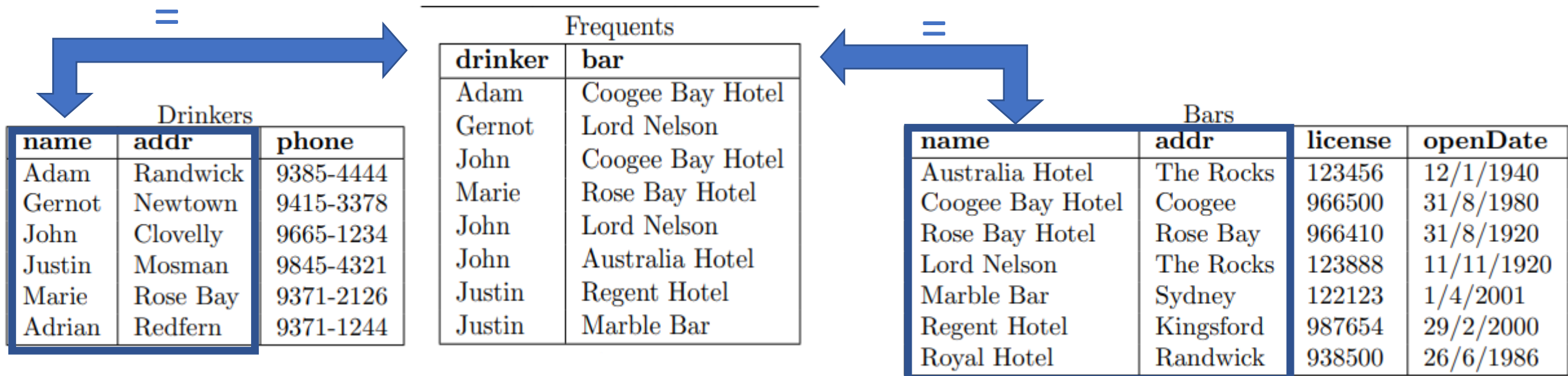
Drinkers		
name	addr	phone
Adam	Randwick	9385-4444
Gernot	Newtown	9415-3378
John	Clovelly	9665-1234
Justin	Mosman	9845-4321
Marie	Rose Bay	9371-2126
Adrian	Redfern	9371-1244

Frequents	
drinker	bar
Adam	Coogee Bay Hotel
Gernot	Lord Nelson
John	Coogee Bay Hotel
Marie	Rose Bay Hotel
John	Lord Nelson
John	Australia Hotel
Justin	Regent Hotel
Justin	Marble Bar

# Exercice 2

Donner les nom et adresse de personnes avec les noms de bars qu'ils fréquentent.  
Donner aussi l'adresse du bar.

```
SELECT D.name, D.addr, B.name, B.addr
FROM Drinkers D JOIN Frequents F ON (D.name = F.drinker)
      JOIN Bars B ON (F.bar = B.name);
```



# Exercice 3

Donner les couples de personnes qui fréquentent un même bar

Bars			
name	addr	license	openDate
Australia Hotel	The Rocks	123456	12/1/1940
Coogee Bay Hotel	Coogee	966500	31/8/1980
Rose Bay Hotel	Rose Bay	966410	31/8/1920
Lord Nelson	The Rocks	123888	11/11/1920
Marble Bar	Sydney	122123	1/4/2001
Regent Hotel	Kingsford	987654	29/2/2000
Royal Hotel	Randwick	938500	26/6/1986

Drinkers		
name	addr	phone
Adam	Randwick	9385-4444
Gernot	Newtown	9415-3378
John	Clovelly	9665-1234
Justin	Mosman	9845-4321
Marie	Rose Bay	9371-2126
Adrian	Redfern	9371-1244

Frequents	
drinker	bar
Adam	Coogee Bay Hotel
Gernot	Lord Nelson
John	Coogee Bay Hotel
Marie	Rose Bay Hotel
John	Lord Nelson
John	Australia Hotel
Justin	Regent Hotel
Justin	Marble Bar

# Exercice 3

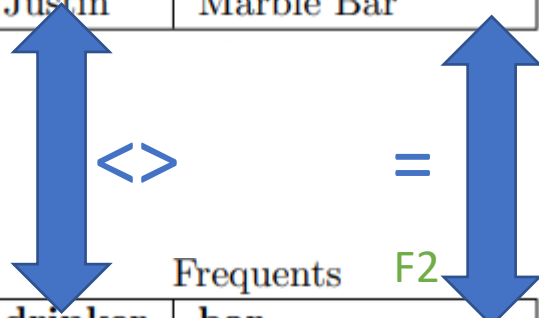
Donner les couples de personnes qui fréquentent un même bar

Requête pas tout à fait correcte ....

```
SELECT F1.drinker, F2.drinker
FROM Frequents F1 JOIN Frequents F2 ON (F1.bar = F2.bar AND F1.drinker <> F2.drinker);
```

	drinker	drinker
1	Adam	John
2	Gernot	John
3	John	Adam
4	John	Gernot

Frequents F1	
drinker	bar
Adam	Coogee Bay Hotel
Gernot	Lord Nelson
John	Coogee Bay Hotel
Marie	Rose Bay Hotel
John	Lord Nelson
John	Australia Hotel
Justin	Regent Hotel
Justin	Marble Bar



Frequents F2	
drinker	bar
Adam	Coogee Bay Hotel
Gernot	Lord Nelson
John	Coogee Bay Hotel
Marie	Rose Bay Hotel
John	Lord Nelson
John	Australia Hotel
Justin	Regent Hotel
Justin	Marble Bar

# Exercice 3

Donner les couples de personnes qui fréquentent un même bar

Toujours requête pas tout à fait correcte ....

```
SELECT F1.drinker, F2.drinker
FROM Frequents F1 JOIN Frequents F2 ON (F1.bar = F2.bar AND F1.drinker < F2.drinker);
```

	drinker	drinker
1	Adam	John
2	Gernot	John
3	John	Adam
4	John	Gernot



drinker	drinker
Adam	John
Gernot	John

Frequents F1	
drinker	bar
Adam	Coogee Bay Hotel
Gernot	Lord Nelson
John	Coogee Bay Hotel
Marie	Rose Bay Hotel
John	Lord Nelson
John	Australia Hotel
Justin	Regent Hotel
Justin	Marble Bar

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Frequents F2	
drinker	bar
Adam	Coogee Bay Hotel
Gernot	Lord Nelson
John	Coogee Bay Hotel
Marie	Rose Bay Hotel
John	Lord Nelson
John	Australia Hotel
Justin	Regent Hotel
Justin	Marble Bar



# Exercice 3

Donner les couples de personnes qui fréquentent un même bar

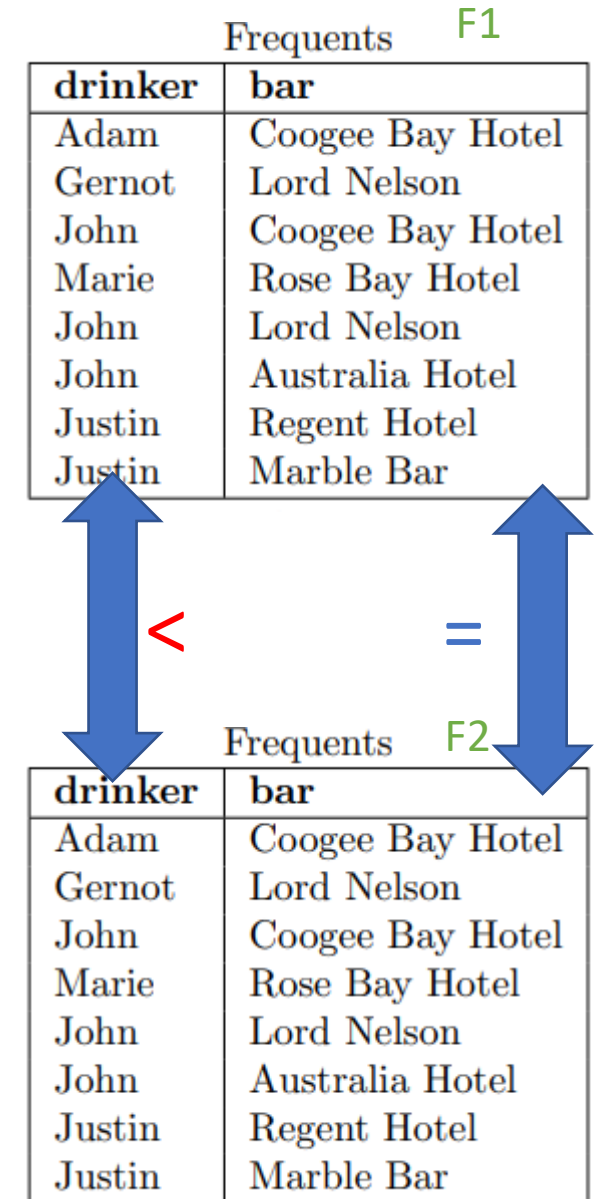
*Potentiellement on peut avoir des doublons (2 personnes peuvent fréquenter ensemble plusieurs bars) ! -> besoin de DISTINCT*

```
SELECT DISTINCT F1.drinker, F2.drinker
FROM Frequents F1 JOIN Frequents F2 ON (F1.bar = F2.bar AND F1.drinker < F2.drinker);
```

drinker	drinker
Adam	John
Gernot	John

```
SELECT DISTINCT F1.drinker AS drinker1, F2.drinker AS drinker2
FROM Frequents F1 JOIN Frequents F2 ON (F1.bar = F2.bar AND F1.drinker < F2.drinker);
```

	drinker1	drinker2
1	Adam	John
2	Gernot	John



# Exercice 4

Donner le bar fréquenté par Gernot et John

Bars

name	addr	license	openDate
Australia Hotel	The Rocks	123456	12/1/1940
Coogee Bay Hotel	Coogee	966500	31/8/1980
Rose Bay Hotel	Rose Bay	966410	31/8/1920
Lord Nelson	The Rocks	123888	11/11/1920
Marble Bar	Sydney	122123	1/4/2001
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Royal Hotel	Randwick	938500	26/6/1986

Drinkers

name	addr	phone
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Marie	Rose Bay	9371-2126
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Frequents

drinker	bar
Adam	Coogee Bay Hotel
Gernot	Lord Nelson
John	Coogee Bay Hotel
Marie	Rose Bay Hotel
John	Lord Nelson
John	Australia Hotel
Justin	Regent Hotel
Justin	Marble Bar

# Exercice 4

Donner le bar fréquenté par Gernot et John

❌ `SELECT bar`  
`FROM Frequent`  
`WHERE drinker = 'Gernot' AND drinker='John';`

Impossible (vérification par ligne) -> no rows selected

❌ `SELECT bar`  
`FROM Frequent`  
`WHERE drinker = 'Gernot' OR drinker='John';`

Faux. Pas forcément les deux!

Frequent	
drinker	bar
Adam	Coogee Bay Hotel
Gernot	Lord Nelson
John	Coogee Bay Hotel
Marie	Rose Bay Hotel
John	Lord Nelson
John	Australia Hotel
Justin	Regent Hotel
Justin	Marble Bar

# Exercice 4

Donner le bar fréquenté par Gernot et John

✓ `SELECT F1.bar`  
`FROM Frequents F1 JOIN Frequents F2 ON (F1.bar = F2.bar)`  
`WHERE F1.drinker = 'Gernot' AND F2.drinker='John';`

✓ `SELECT bar`  
`FROM Frequents F1 JOIN Frequents F2 USING (bar )`  
`WHERE F1.drinker = 'Gernot' AND F2.drinker='John';`

✓ `SELECT bar`  
`FROM Frequents`  
`WHERE drinker = 'Gernot'`  
`INTERSECT`  
`SELECT bar`  
`FROM Frequents`  
`WHERE drinker = 'John';`

✓ `SELECT bar`  
`FROM Frequents`  
`WHERE drinker = 'Gernot' AND bar IN`  
`(SELECT bar`  
`FROM Frequents`  
`WHERE drinker = 'John');`

Frequents F1

drinker	bar
Adam	Coogee Bay Hotel
Gernot	Lord Nelson
John	Coogee Bay Hotel
Marie	Rose Bay Hotel
John	Lord Nelson
John	Australia Hotel
Justin	Regent Hotel
Justin	Marble Bar

Frequents F2

drinker	bar
Adam	Coogee Bay Hotel
Gernot	Lord Nelson
John	Coogee Bay Hotel
Marie	Rose Bay Hotel
John	Lord Nelson
John	Australia Hotel
Justin	Regent Hotel
Justin	Marble Bar

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