



Alper VAHAPLAR
2018 – 2019 ©

DATABASE MANAGEMENT – 8

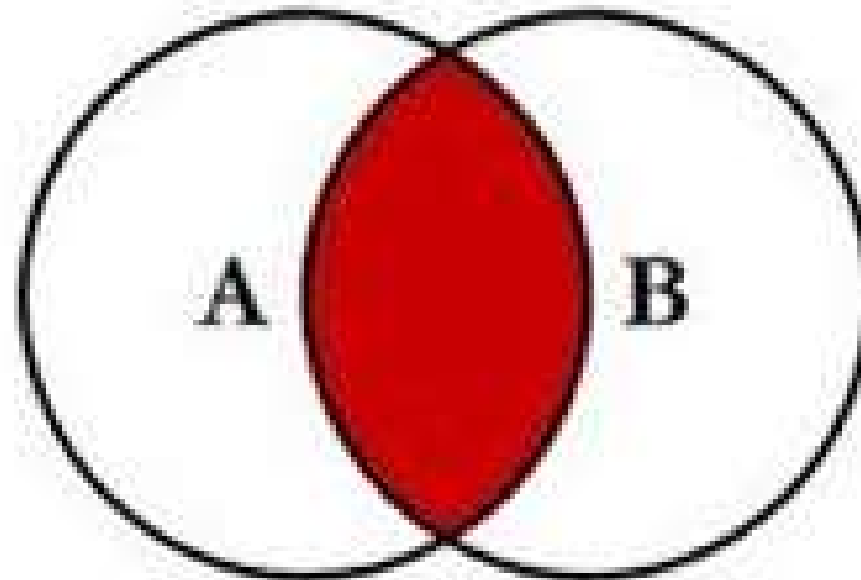


INNER JOIN

- BeyazEsva (urunno, modeli, markakodu, turkodu, fiyati)
- Türler (turkodu, turadi, aciklama) (Ex: 01-Buzdolabi)
- Markalar (markakodu, marka) (Ex: 01-Arçelik, 02-Beko)
- Her markanın kaç ürünü var?
- ```
SELECT marka, count(urunno) as Adet
FROM BeyazEsva b, Markalar m
WHERE b.markakodu = m.markakodu
GROUP BY marka
```
- ```
SELECT marka, count(urunno) as Adet
FROM Markalar m
INNER JOIN BeyazEsva b
ON b.markakodu = m.markakodu
GROUP BY marka
```

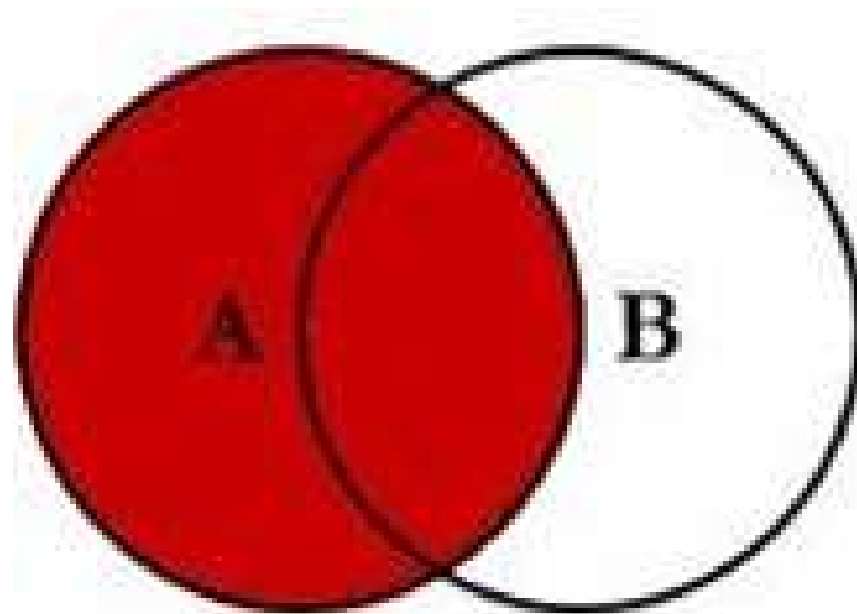
| marka | Adet |
|---------|------|
| Arçelik | 6 |
| Beko | 5 |
| Bosch | 4 |

SQL – INNER JOIN



```
SELECT <select_list>  
FROM TableA A  
INNER JOIN TableB B  
ON A.Key = B.Key
```

OUTER JOIN – LEFT OUTER JOIN



```
SELECT <select_list>  
FROM TableA A  
LEFT JOIN TableB B  
ON A.Key = B.Key
```

OUTER JOIN – LEFT JOIN

- BeyazEsva (urunno, modeli, markakodu, turkodu, fiyati)
- Türler (turkodu, turadi, aciklama) (Ex: 01-Buzdolabi)
- Markalar (markakodu, marka) (Ex: 01-Arçelik, 02-Beko)
- Her markanın kaç ürünü var?
- SELECT marka, count(urunno) as Adet
FROM Markalar m
INNER JOIN BeyazEsva b
ON b.markakodu = m.markakodu
GROUP BY marka
- SELECT marka, count(urunno) as Adet
FROM Markalar m
LEFT OUTER JOIN BeyazEsva b
ON b.markakodu = m.markakodu
GROUP BY marka

| marka | Adet |
|---------|------|
| Arçelik | 6 |
| Beko | 5 |
| Bosch | 4 |
| Regal | 0 |
| Tefal | 0 |

LEFT OUTER JOIN

- Bolum(BolumNo, BolumAdi)
- Ogresci(BolumNo, OgresciNo, OgresciAdi)
- SELECT Ogresciadi, BolumAdi
FROM Ogresci, Bolum
WHERE Ogresci.BolumNo=Bolum.BolumNo

| BolumNo | BolumAdi |
|---------|----------------------|
| 1 | İstatistik |
| 2 | Bilgisayar Bilimleri |
| 3 | Matematik |
| 4 | Fizik |
| 5 | Kimya |
| 6 | Biyoloji |

| OgresciAdi | BolumAdi |
|---------------|----------------------|
| Ali Veli | İstatistik |
| Ayşe Fatma | İstatistik |
| Hasan Hüseyin | İstatistik |
| Ahmet Mehmet | Bilgisayar Bilimleri |
| Leyla Nejla | Bilgisayar Bilimleri |
| Murat Fırat | Matematik |
| Jale Lale | Fizik |

LEFT OUTER JOIN

- Bolum(BolumNo, BolumAdi)
- Ogresnci(BolumNo, OgresnciNo, OgresnciAdi)
- SELECT Ogresnciadi, BolumAdi FROM Ogresnci
INNER JOIN Bolum
ON Ogresnci.BolumNo=Bolum.BolumNo

| BolumNo | BolumAdi |
|---------|----------------------|
| 1 | İstatistik |
| 2 | Bilgisayar Bilimleri |
| 3 | Matematik |
| 4 | Fizik |
| 5 | Kimya |
| 6 | Biyoloji |

| OgresnciAdi | BolumAdi |
|---------------|----------------------|
| Ali Veli | İstatistik |
| Ayşe Fatma | İstatistik |
| Hasan Hüseyin | İstatistik |
| Ahmet Mehmet | Bilgisayar Bilimleri |
| Leyla Nejla | Bilgisayar Bilimleri |
| Murat Fırat | Matematik |
| Jale Lale | Fizik |

LEFT OUTER JOIN

- Bolum(BolumNo, BolumAdi)
- Ogrenci(BolumNo, OgrenciNo, OgrenciAdi)
- SELECT Ogrenciadi, BolumAdi FROM Ogrenci

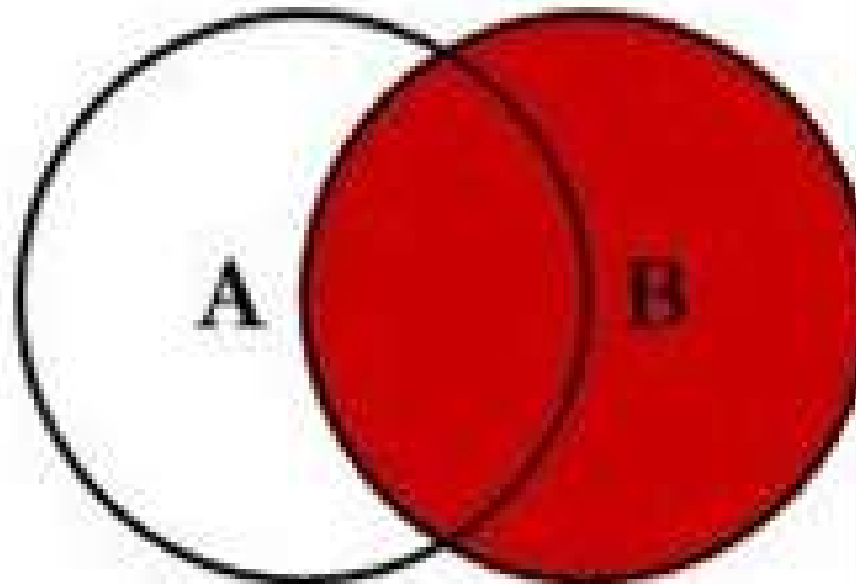
LEFT OUTER JOIN Bolum

ON Ogrenci.BolumNo=Bolum.BolumNo

| BolumNo | BolumAdi |
|---------|----------------------|
| 1 | İstatistik |
| 2 | Bilgisayar Bilimleri |
| 3 | Matematik |
| 4 | Fizik |
| 5 | Kimya |
| 6 | Biyoloji |

| OgrenciAdi | BolumAdi |
|---------------|----------------------|
| Ali Veli | İstatistik |
| Ayşe Fatma | İstatistik |
| Hasan Hüseyin | İstatistik |
| Ahmet Mehmet | Bilgisayar Bilimleri |
| Leyla Nejla | Bilgisayar Bilimleri |
| Murat Fırat | Matematik |
| Jale Lale | Fizik |
| Osman Orhan | |

OUTER JOIN – RIGHT OUTER JOIN



```
SELECT <select_list>  
FROM TableA A  
RIGHT JOIN TableB B  
ON A.Key = B.Key
```

RIGHT OUTER JOIN

- Bolum(BolumNo, BolumAdi)
- Ogresci(BolumNo, OgresciNo, OgresciAdi)
- SELECT Ogresciadi, BolumAdi FROM Ogresci

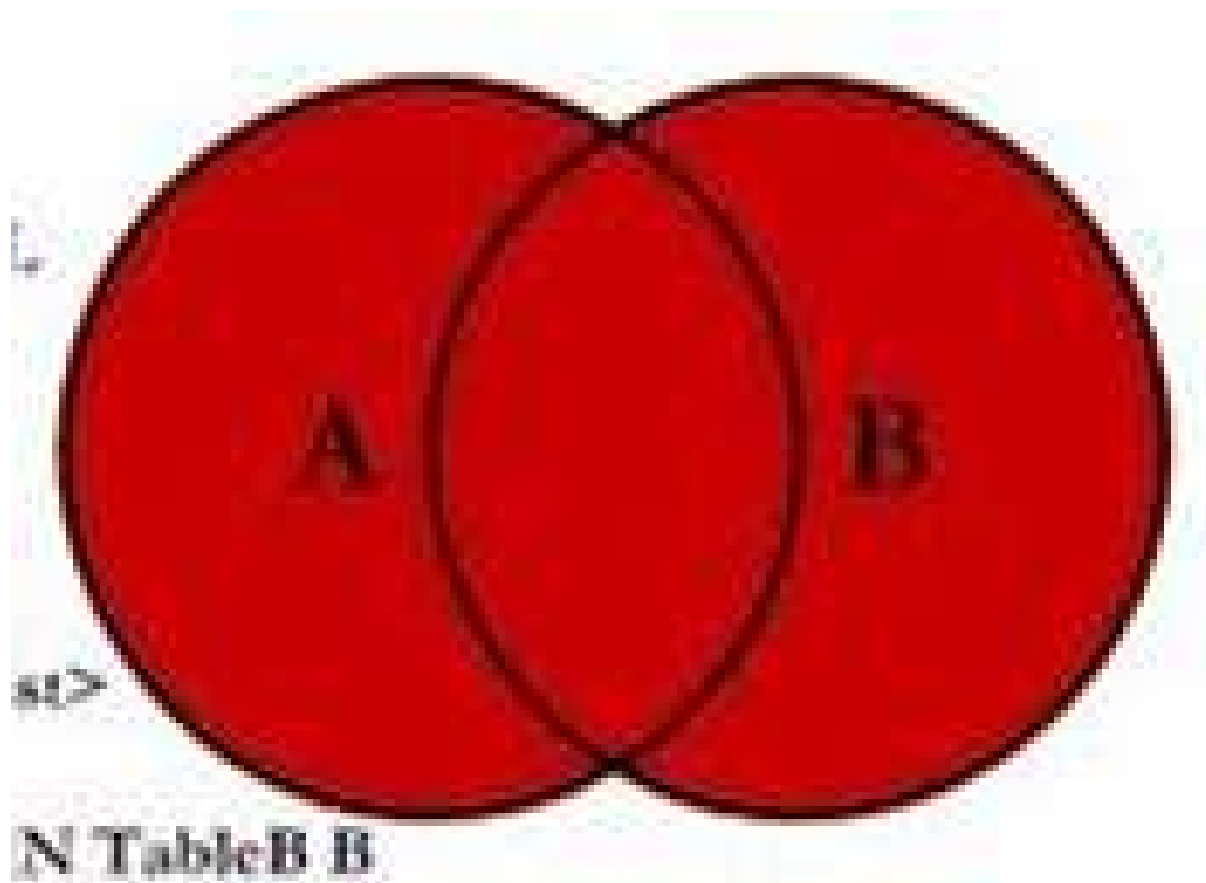
RIGHT OUTER JOIN Bolum

ON Ogresci.BolumNo=Bolum.BolumNo

| BolumNo | BolumAdi |
|---------|----------------------|
| 1 | İstatistik |
| 2 | Bilgisayar Bilimleri |
| 3 | Matematik |
| 4 | Fizik |
| 5 | Kimya |
| 6 | Biyoloji |

| OgresciAdi | BolumAdi |
|---------------|----------------------|
| Ali Veli | İstatistik |
| Ayşe Fatma | İstatistik |
| Hasan Hüseyin | İstatistik |
| Ahmet Mehmet | Bilgisayar Bilimleri |
| Leyla Nejla | Bilgisayar Bilimleri |
| Murat Fırat | Matematik |
| Jale Lale | Fizik |
| | Kimya |
| | Biyoloji |

OUTER JOIN – FULL OUTER JOIN



FULL OUTER JOIN

- Bolum(BolumNo, BolumAdi)
- Ogresci(BolumNo, OgresciNo, OgresciAdi)
- SELECT Ogresciadi, BolumAdi FROM Ogresci

FULL OUTER JOIN Bolum

ON Ogresci.BolumNo=Bolum.BolumNo

| BolumNo | BolumAdi |
|---------|----------------------|
| 1 | İstatistik |
| 2 | Bilgisayar Bilimleri |
| 3 | Matematik |
| 4 | Fizik |
| 5 | Kimya |

| OgresciAdi | BolumAdi |
|---------------|----------------------|
| Ali Veli | İstatistik |
| Ayşe Fatma | İstatistik |
| Hasan Hüseyin | İstatistik |
| Ahmet Mehmet | Bilgisayar Bilimleri |
| Leyla Nejla | Bilgisayar Bilimleri |
| Murat Fırat | Matematik |
| Jale Lale | Fizik |
| Osman Orhan | |
| | Kimya |
| | Biyoloji |

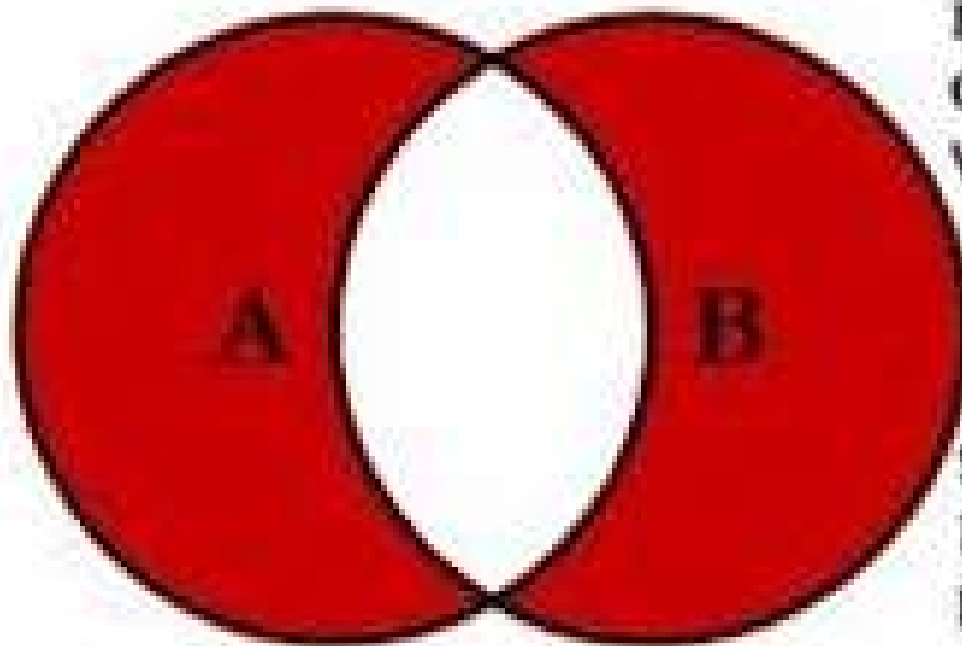
FULL OUTER JOIN

- Bolum(BolumNo, BolumAdi)
- Ogrenci(BolumNo, OgrenciNo, OgrenciAdi)
- SELECT Ogrenciadi, BolumAdi FROM Ogrenci
LEFT OUTER JOIN Bolum
ON Ogrenci.BolumNo=Bolum.BolumNo

UNION

```
SELECT Ogrenciadi, BolumAdi FROM Ogrenci  
RIGHT OUTER JOIN Bolum  
ON Ogrenci.BolumNo=Bolum.BolumNo
```

OUTER JOIN – FULL OUTER JOIN



```
RIGHT JOIN TableB B  
ON A.Key = B.Key  
WHERE A.Key IS NULL.
```

```
SELECT <select_list>  
FROM TableA A  
FULL OUTER JOIN TableB B  
ON A.Key = B.Key  
WHERE A.Key IS NULL.
```

FULL OUTER JOIN

- Bolum(BolumNo, BolumAdi)
- Ogresci(BolumNo, OgresciNo, OgresciAdi)
- SELECT Ogresciadi, BolumAdi FROM Ogresci
FULL OUTER JOIN Bolum
ON Ogresci.BolumNo=Bolum.BolumNo
WHERE Ogresci.BolumNo IS Null
OR Bolum.BolumNo IS Null

| Ogresciadi | BolumAdi |
|-------------|----------|
| | Kimya |
| Osman Orhan | |

FULL OUTER JOIN

- Bolum(BolumNo, BolumAdi)
- Ogresci(BolumNo, OgresciNo, OgresciAdi)
- SELECT Ogresciadi, BolumAdi FROM Ogresci
LEFT OUTER JOIN Bolum
ON Ogresci.BolumNo=Bolum.BolumNo
WHERE Bolum.bolumno is Null

UNION

```
SELECT Ogresciadi, BolumAdi FROM Ogresci  
RIGHT OUTER JOIN Bolum  
ON Ogresci.BolumNo=Bolum.BolumNo  
WHERE OgresciNo is Null
```


JOIN

