

Gruppetime 9 - Aggregeringer

Av Katrine :)



Previously on-

- Vi har sett på aggregeringsfunksjoner som sum og count
- Vi går vi litt mer avansert med...

Aggregering ved sortering og gruppering!

- Nøkkelord på samme måte som DISTINCT, ON, WHERE etc
- Kommer etter WHERE
- Har en rekkefølge




```
fdb=> select filmid, title from film order by filmid desc;
filmid |
-----+-----
13417240 | Ah deme oh de
13408808 | Í einum hveli
13403720 | Sheriff de Valle Verde, El
13403672 | Jornalero, El
13403640 | Bronco de Durango 2, EL
13403624 | Bandoleros
13403592 | As de la mafia, El
13403512 | Galleros de Rancho Grande
```

Sortering

- ORDER BY <kolonner> DESC/ASC
- Lar oss sortere på en eller flere kolonner
- DESC/ASC lat oss sortere i fallende eller stigende rekkefølge
- Eks. SELECT a, b from a_t ORDER BY b DESC sorterer på b, og viser de største verdiene av b øverst
- Kommer alltid etter WHERE



```
fdb=> select filmid, title, prodyear from film order by prodyear asc, filmid desc;
```

filmid		title
		prodyear
7026426	Traffic Crossing Leeds Bridge	1888
5891146	Roundhay Garden Scene	1888
3168197	Leisurely Pedestrians, Open Topped Buses and Hansom Cabs with Trotting Horses	1889
760609	Monkeyshines, No. 3	1890
760593	Monkeyshines, No. 2	1890
760577	Monkeyshines, No. 1	1890
3111367	Monkey and Another, Boxing	1891
2374149	Newark Athlete	1891
2374101	Men Boxing	1891
1984538	Duncan Smoking	1891
1984506	Duncan or Devonald with Muslin Cloud	1891
1984458	Duncan and Another, Blacksmith Shop	1891
1801226	Dickson Greeting	1891
5500730	Prince de Galles, Le	1891



Sortering

```
fdb=> select filmid, title from film order by filmid desc limit 5;
filmid | title
-----+-----
13417240 | Ah deme oh de
13408808 | Í einum hveli
13403720 | Sheriff de Valle Verde, El
13403672 | Jornalero, El
13403640 | Bronco de Durango 2, EL
(5 rows)
```

- LIMIT <int>
- Lar oss avgrense antall rader i resultatet
- Eks. LIMIT 10 gir oss alltid bare de 10 første svarene i en spørring
- LIMIT kommer alltid sist




```
fdb=> select filmid, title, prodyear from film order by prodyear asc, filmid desc limit 10;
```

filmid	title	prodyear
7026426	Traffic Crossing Leeds Bridge	1888
5891146	Roundhay Garden Scene	1888
3168197	Leisurely Pedestrians, Open Topped Buses and Hansom Cabs with Trotting Horses	1889
760609	Monkeyshines, No. 3	1890
760593	Monkeyshines, No. 2	1890
760577	Monkeyshines, No. 1	1890
3111367	Monkey and Another, Boxing	1891
2374149	Newark Athlete	1891
2374101	Men Boxing	1891
1984538	Duncan Smoking	1891

(10 rows)

```
fdb=> select filmid, title, prodyear from film order by prodyear asc, filmid desc limit 10 offset 5;
```

filmid	title	prodyear
760577	Monkeyshines, No. 1	1890
3111367	Monkey and Another, Boxing	1891
2374149	Newark Athlete	1891
2374101	Men Boxing	1891
1984538	Duncan Smoking	1891
1984506	Duncan or Devonald with Muslin Cloud	1891
1984458	Duncan and Another, Blacksmith Shop	1891
1801226	Dickson Greeting	1891
5500730	Prince de Galles, Le	1892
3111751	Wrestling	1892

(10 rows)

Grupper

- GROUP BY <kolonner>
- Grupperer verdier som er like sammen, som dato, ord etc
- Vil ofte se at den krever at du tar med alle kolonner i select
- grupperingen skjer i rekkefølgen du la kolonner inn i GROUP BY

```
fdb-> select filmid, title, prodyear from film group by title, filmid, prodyear;
```

filmid		prodyear	title
26	!Huff		
42	#1	2004	
58	#1 Fan: A Darkomentary	2005	
2703692	#10: Painted Lightning	2005	
2703676	#1: Jane's Memory	1975	
74	#28	1975	
90	#2: Drops	2002	
2703724	#3: Hollis Frampton	2004	
2703740	#4: Jane's Memory	1975	
2703756	#5: Niagara Falls	1975	
2703772	#6: Stars, Chickens, Eyes, Candles	1975	




```
fdb=> select filmid, title, prodyear from film group by title, filmid, prodyear limit 5;
filmid | title | prodyear
-----+-----+-----
26 | !Huff | 2004
42 | #1 | 2005
58 | #1 Fan: A Darkomentary | 2005
2703692 | #10: Painted Lightning | 1975
2703676 | #1: Jane's Memory | 1975
(5 rows)

fdb=> select filmid, title, prodyear from film group by title, filmid, prodyear having filmid > 26 limit 5;
filmid | title | prodyear
-----+-----+-----
42 | #1 | 2005
58 | #1 Fan: A Darkomentary | 2005
2703692 | #10: Painted Lightning | 1975
2703676 | #1: Jane's Memory | 1975
74 | #28 | 2002
(5 rows)
```

Grupper

- HAVING <condition>
- Fungerer som en WHERE for grupper



Enklere SQL

```
fdb=> WITH a AS (  
select * from film where prodyear = 1996),  
b AS (  
select * from filmrating where rank > 4)  
select a.title, b.rank from a inner join b using (filmid);
```

title	rank
Alma gitana	5.6
Nieuwe moeder, De	7
\$40,000	4.3
Merisairas	4.4
Nasser 56	6.1
Grand Avenue	6.3
Mondo	7.1
Wind in the Willows, The	6.3
Getürkt	9
Kid Cop	4.5
Vows of Deception	5.3
Alien Nation: Millennium	5.7
Alien Nation: The Enemy Within	5.8
Phantom, The	4.8
'M' Word	4.6
Space Jam	5.2

- USING (<kolonne>) an bli brukt i stedet for ON, så lenge kolonnene har samme navn
- Som en litt mer kontrollert NATURAL JOIN ;)
- WITH når du har flere spørringer som du vil bruke igjen

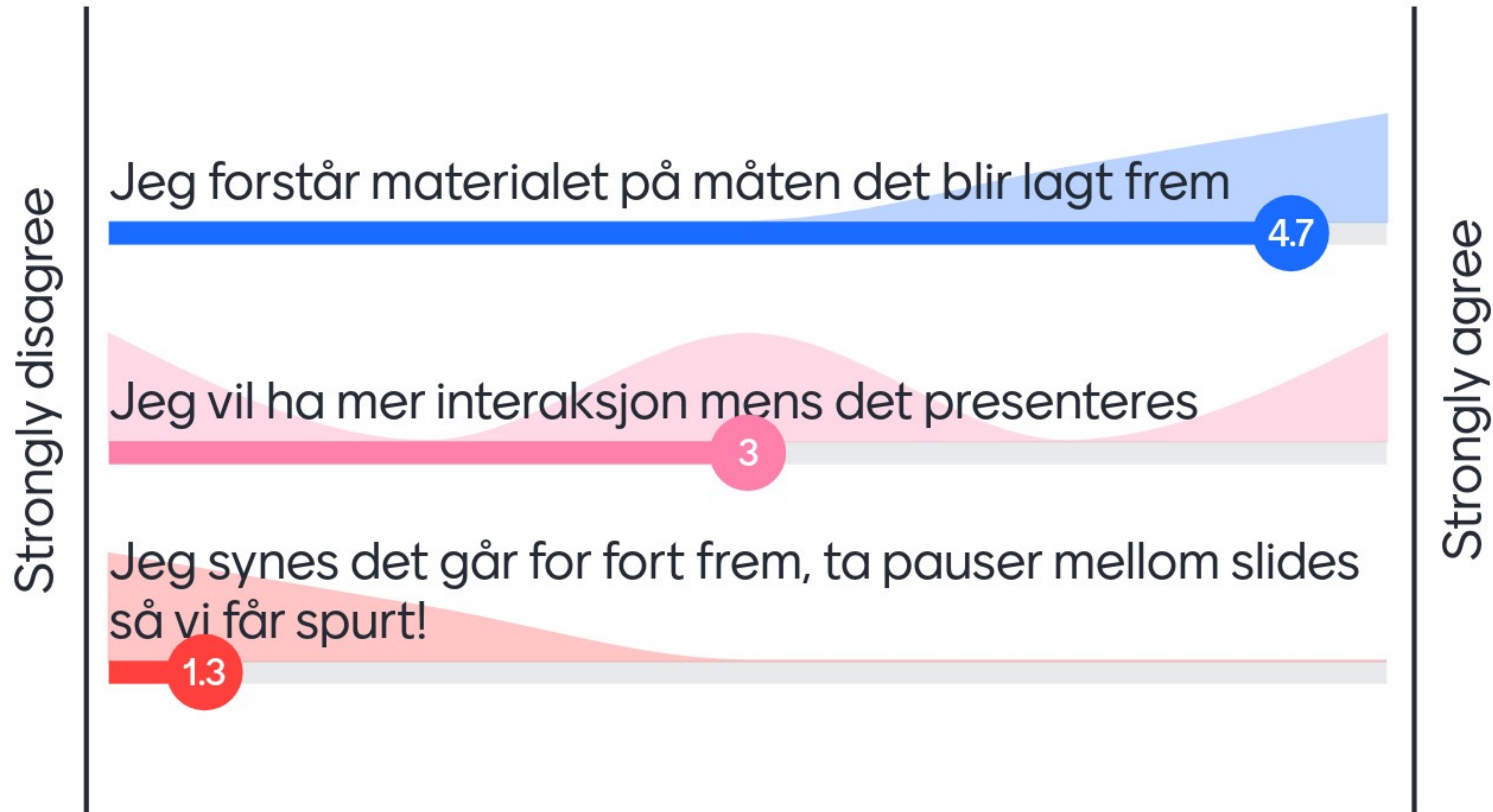


INGEN QUIZ

1 DAG :D



Hvordan synes dere gruppetimene er?



AND
DONE!

