

Databases

Introduction to SQL

Join

```
create table Person(  
    Name varchar(50),  
    FavoriteColor int  
)
```

Join

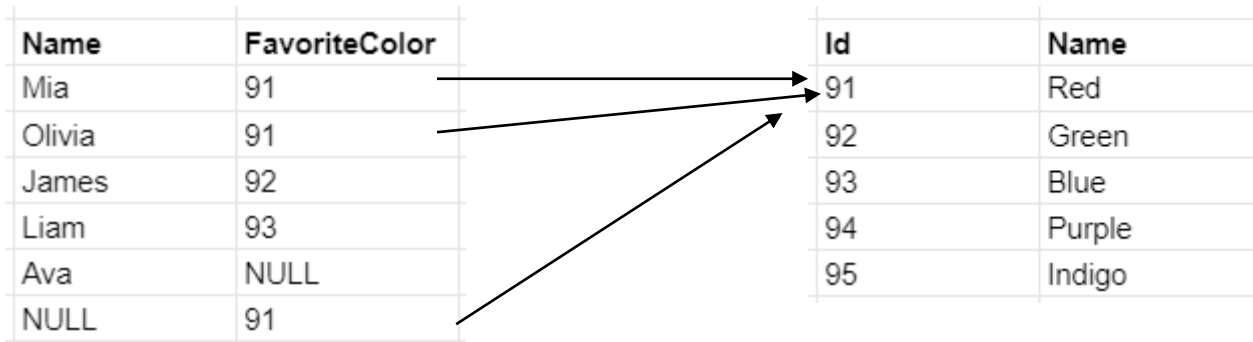
```
create table Color(  
    Id int,  
    Name varchar(50)  
)
```

Join

```
insert into Color  
values
```

```
(91, 'Red'),  
(92, 'Green'),  
(93, 'Blue'),  
(94, 'Purple'),  
(95, 'Indigo')
```

Join



Join

Name	FavoriteColor	Id	Name
Mia	91	91	Red
Olivia	91	91	Red
James	92	92	Green
Liam	93	93	Blue
Ava	NULL	NULL	NULL
NULL	91	91	Red
NULL	NULL	94	Purple
NULL	NULL	95	Indigo

Group By

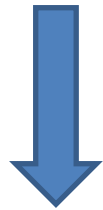
Name	Country	Income
Mia	Sweden	20000
James	Sweden	25000
Liam	Sweden	28000
Ava	Iceland	60000
Olivia	Iceland	50000
Lisa	Spain	10000

Group By

	Name	Country	Income	
	Mia	Sweden	20000	
	James	Sweden	25000	
	Liam	Sweden	28000	
	Ava	Iceland	60000	
	Olivia	Iceland	50000	
	Lisa	Spain	10000	

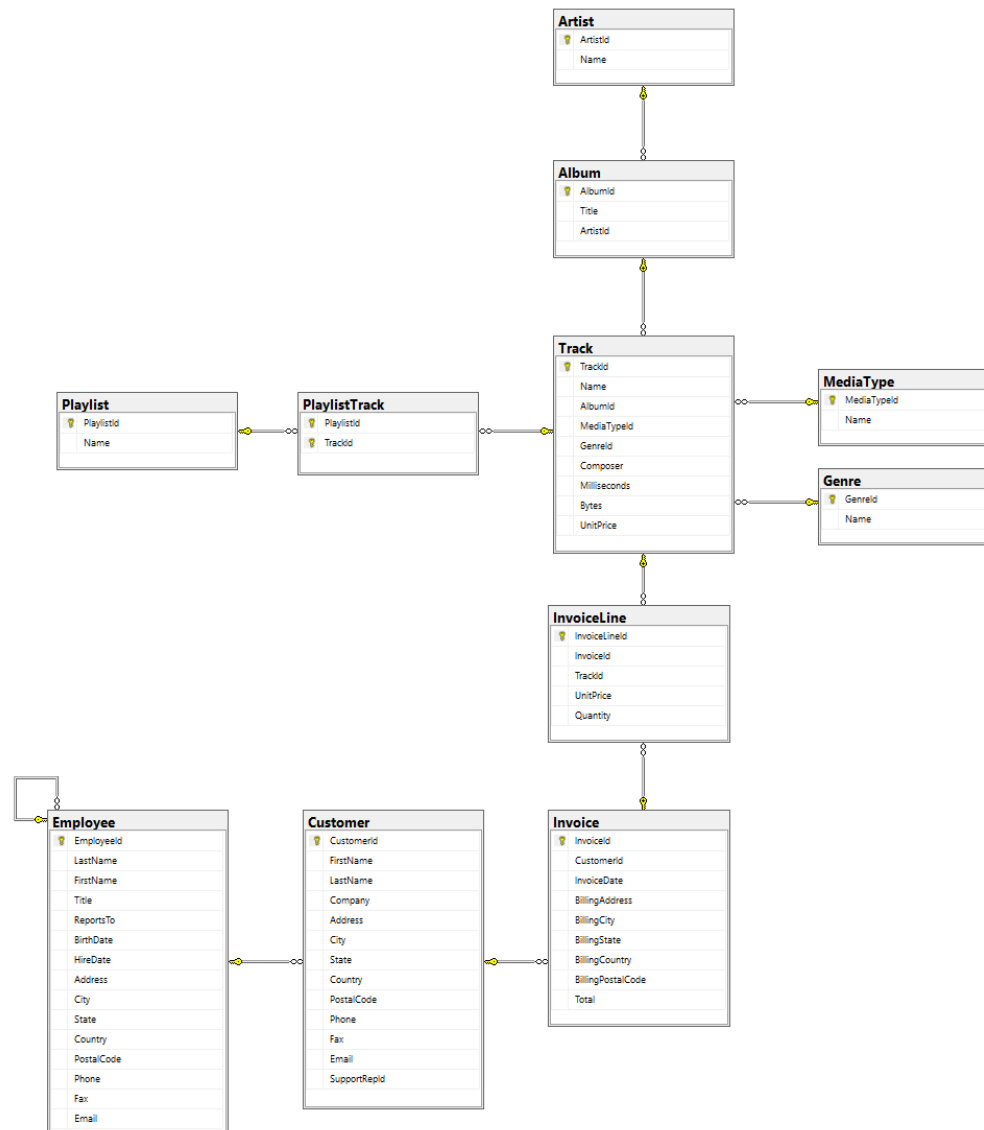
Group By

```
SELECT Country, AVG(Income) as Average, count(*) as Inhabitants  
FROM Person  
GROUP BY Country
```



Country	Average	Inhabitants
Iceland	55000	2
Spain	10000	1
Sweden	24333	3

Chinook



Why databases?

- Storing
- Consistent
- Performance
- Many users
- Robust

SQL

- Standardized
- Read, Update, Remove
- Create tables

Join

Combining tables

Keys

Consistent data

Group by

Sum

Average

Thoughts?

Feelings?

Reflections?