

SQL

Chapter 1

Tables

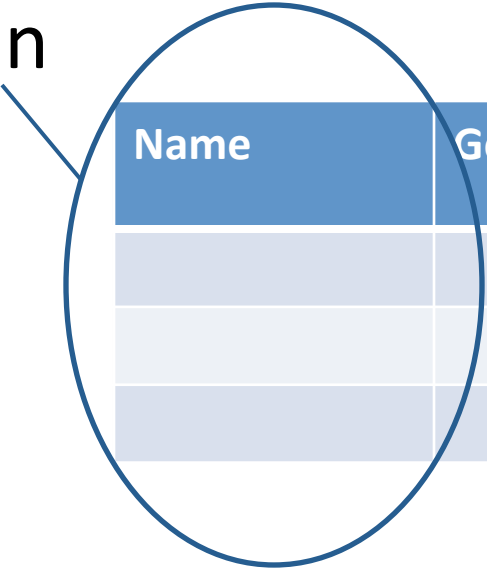
Table

Table

Name	Gender	Birth Year

Table

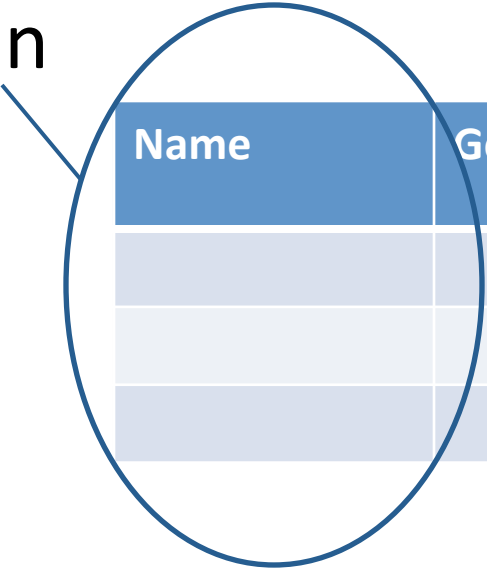
Column



Name	Gender	Birth Year

Table

Column
Field



A diagram illustrating a table structure. A blue circle highlights the first column of the table. A line points from the text 'Column Field' to the first column. The table has three columns: 'Name', 'Gender', and 'Birth Year'. The first column is circled, and a line points from the text 'Column Field' to it.

Name	Gender	Birth Year

Table

Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>

Table

Type

Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>

Table


Type

Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>

Google: mysql types

Table

Schema



Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>

Table

Data {

Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>

Table

Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
Greg Little		

Table

Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
Greg Little	M	

Table

Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
Greg Little	M	1981

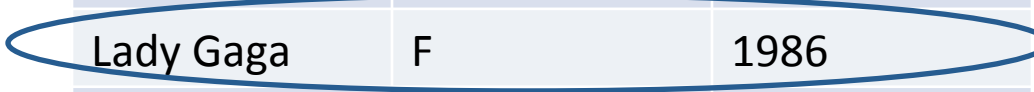
Table

Row

Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
Greg Little	M	1981

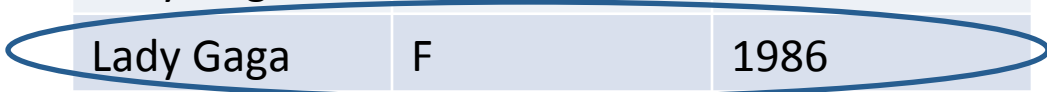
Table

Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
Greg Little	M	1981
Lady Gaga	F	1986



Table

Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
Greg Little	M	1981
Lady Gaga	F	1986
Lady Gaga	F	1986

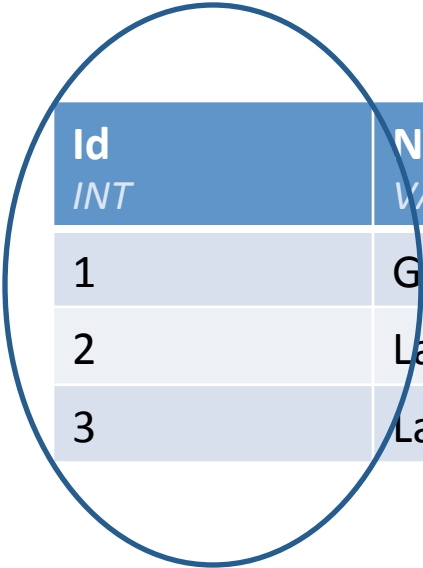


Table

Duplicates
not allowed

Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
Greg Little	M	1981
Lady Gaga	F	1986
Lady Gaga	F	1986

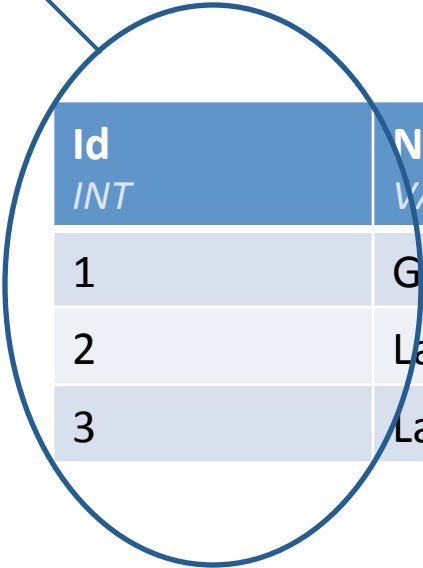
Table



Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

Table

Key



Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

Tables

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

Tables

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Tables

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
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People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
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Tables

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>	Group <i>INT</i>
1	Greg Little	M	1981	
2	Lady Gaga	F	1986	
3	Lady Gaga	F	1986	

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
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Tables

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>	Group <i>INT</i>
1	Greg Little	M	1981	2
2	Lady Gaga	F	1986	1
3	Lady Gaga	F	1986	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

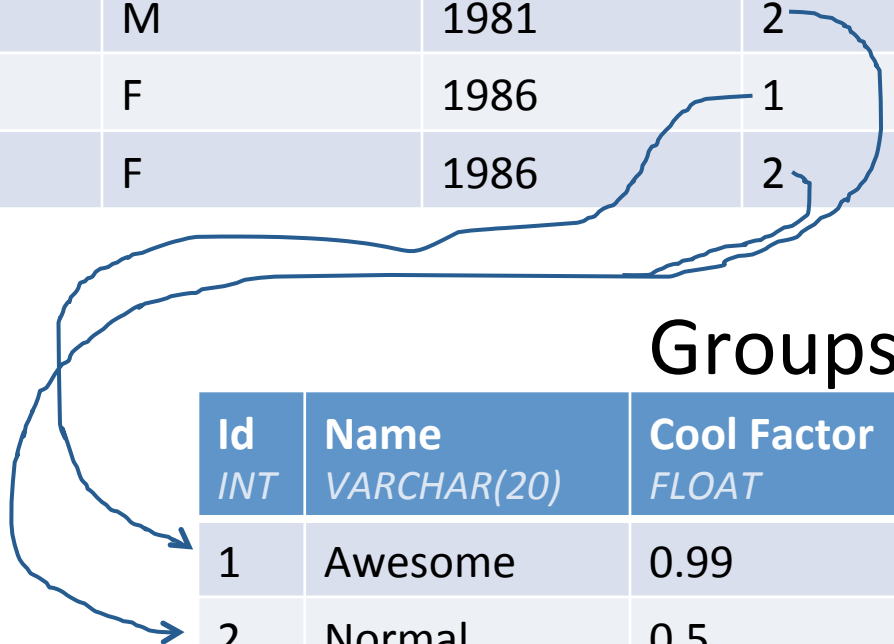
Tables

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>	Group <i>INT</i>
1	Greg Little	M	1981	2
2	Lady Gaga	F	1986	1
3	Lady Gaga	F	1986	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
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Tables

Foreign Key

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>	Group <i>INT</i>
1	Greg Little	M	1981	2
2	Lady Gaga	F	1986	1
3	Lady Gaga	F	1986	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
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People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>	Group <i>INT</i>
1	Greg Little	M	1981	2
2	Lady Gaga	F	1986	1, 3
3	Lady Gaga	F	1986	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
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1	Greg Little	M	1981	2
2	Lady Gaga	F	1986	1, 3
3	Lady Gaga	F	1986	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
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Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>	Group <i>Array</i>
1	Greg Little	M	1981	2
2	Lady Gaga	F	1986	1, 3
3	Lady Gaga	F	1986	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
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1	Greg Little	M	1981	2
2	Lady Gaga	F	1986	1, 3
3	Lady Gaga	F	1986	2

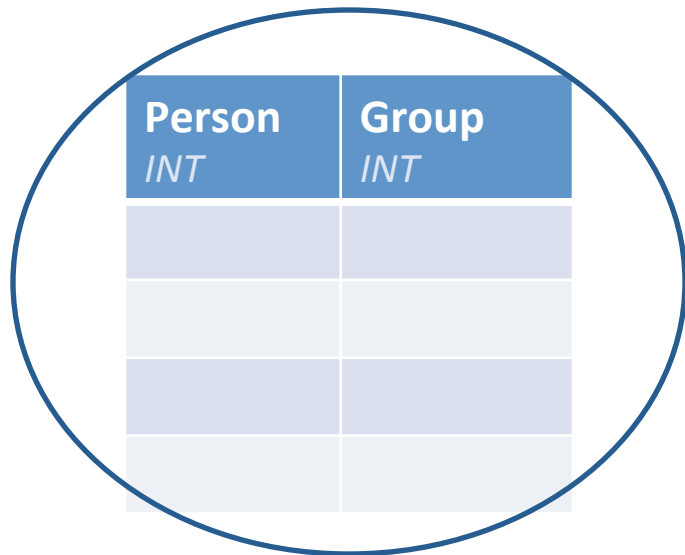
Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
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People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>	Group <i>Array</i>
1	Greg Little	M	1981	2
2	Lady Gaga	F	1986	1, 3
3	Lady Gaga	F	1986	2



Person <i>INT</i>	Group <i>INT</i>

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
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Tables

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>	Group <i>Array</i>
1	Greg Little	M	1981	2
2	Lady Gaga	F	1986	1, 3
3	Lady Gaga	F	1986	2

Person <i>INT</i>	Group <i>INT</i>
1	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
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Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>	Group <i>Array</i>
1	Greg Little	M	1981	2
2	Lady Gaga	F	1986	1,3
3	Lady Gaga	F	1986	2

Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
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1	Greg Little	M	1981	2
2	Lady Gaga	F	1986	1, 3
3	Lady Gaga	F	1986	2

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3

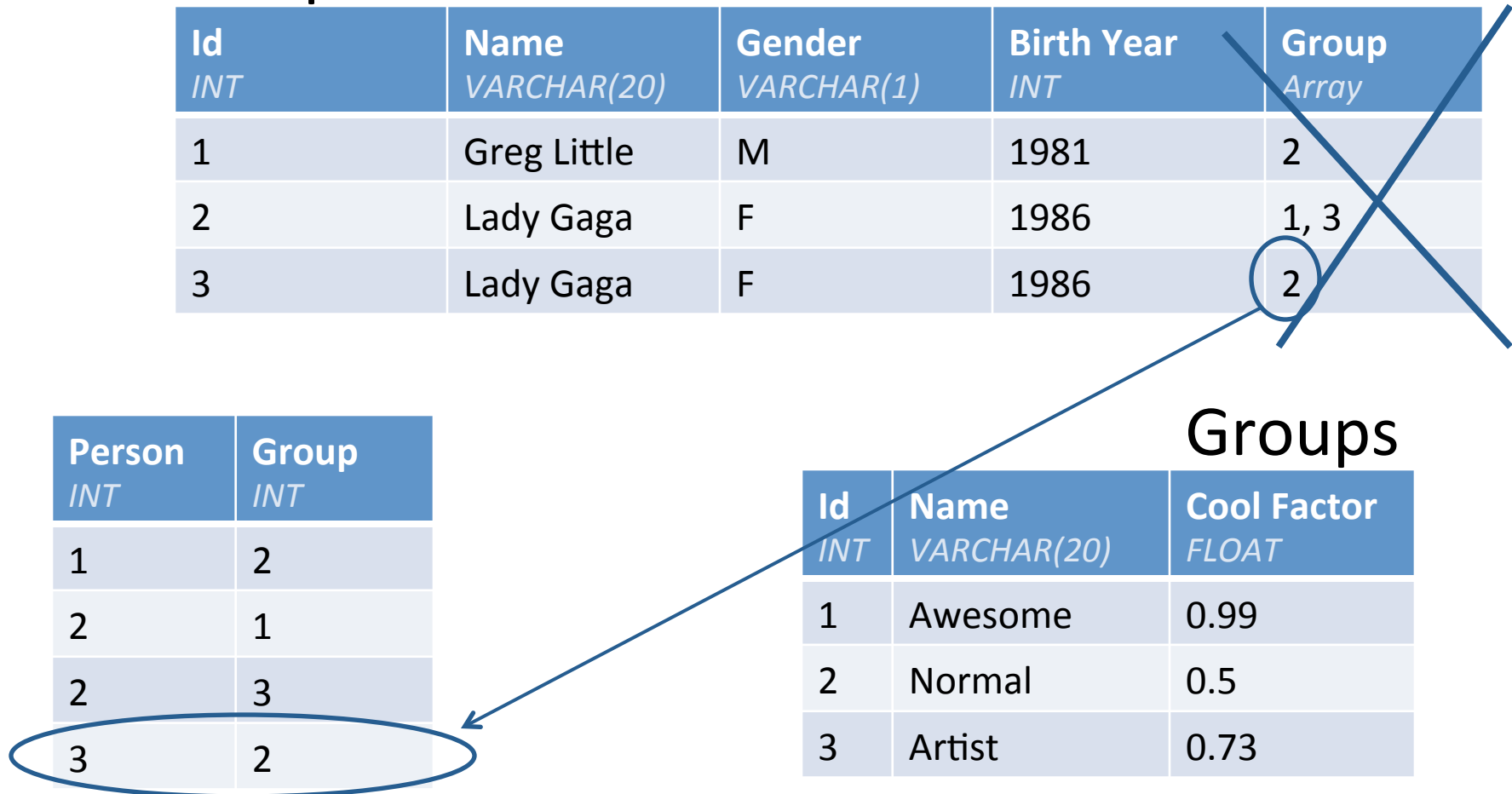
Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
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3	Artist	0.73

Tables

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>	Group <i>Array</i>
1	Greg Little	M	1981	2
2	Lady Gaga	F	1986	1, 3
3	Lady Gaga	F	1986	2



Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Tables

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

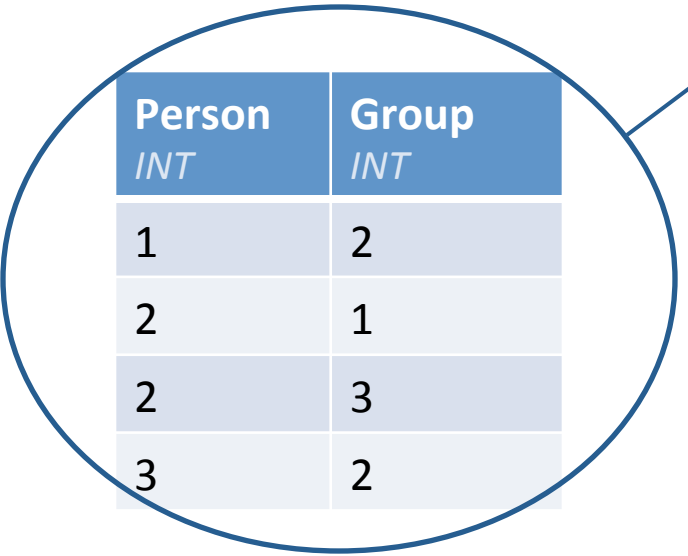
Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Tables

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

Join Table



Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Tables

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Show Demo

Tables

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Chapter 2

Queries

Queries

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select * from People
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select * from People;
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select * from People;
```

```
+-----+-----+-----+-----+
| Id | Name          | Gender | Birth Year |
+-----+-----+-----+-----+
|  1 | Greg Little  | M      |    1981   |
+-----+-----+-----+-----+
|  2 | Lady Gaga    | F      |    1986   |
+-----+-----+-----+-----+
|  3 | Lady Gaga    | F      |    1986   |
+-----+-----+-----+-----+
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select * from People;
```

Id	Name	Gender	Birth Year
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

SELECT * **FROM** People;

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
SELECT * FROM People;
```

Id	Name	Gender	Birth Year
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select * from People;
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select Name from People;
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select Name from People;
```

Name
Greg Little
Lady Gaga
Lady Gaga

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select Name, Id from People;
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select Name, Id from People;
```

Name	Id
Greg Little	1
Lady Gaga	2
Lady Gaga	3

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select Name, Id from People where Gender = 'F';
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select Name, Id from People where Gender = 'F';
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select Name, Id from People where Gender = 'F';
```

Name	Id
Lady Gaga	2
Lady Gaga	3

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select Name, Id from People
where `Birth Year` < 1984;
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select Name, Id from People
       where `Birth Year` < 1984;
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select Name, Id from People
       where Birth Year < 1984;
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select Name, Id from People
       where `Birth Year` < 1984;
```

Name	Id
Greg Little	1

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select Name, Id from People
       where `Birth Year` < 1984;
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select Name, Id from People
       where 'Birth Year' < 1984;
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select Name, Id from People
       where 'Birth Year' < 1984;
```

no error!

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select Name, Id from People
       where 'Birth Year' < 1984;
```

Name	Id
Greg Little	1
Lady Gaga	2
Lady Gaga	3

no error!

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select Name, Id from People
       where Birth Year < 1984;
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>	Group <i>INT</i>
1	Greg Little	M	1981	2
2	Lady Gaga	F	1986	1
3	Lady Gaga	F	1986	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select * from People, Groups;
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>	Group <i>INT</i>
1	Greg Little	M	1981	2
2	Lady Gaga	F	1986	1
3	Lady Gaga	F	1986	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

```
select * from People, Groups;
```

Join

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>	Group <i>INT</i>
1	Greg Little	M	1981	2
2	Lady Gaga	F	1986	1
3	Lady Gaga	F	1986	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Queries

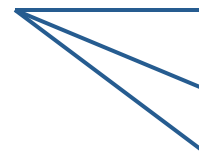
```
select * from People, Groups;
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>	Group <i>INT</i>
1	Greg Little	M	1981	2
2	Lady Gaga	F	1986	1
3	Lady Gaga	F	1986	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73



Queries

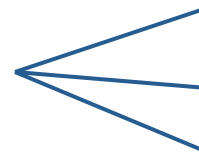
```
select * from People, Groups;
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>	Group <i>INT</i>
1	Greg Little	M	1981	2
2	Lady Gaga	F	1986	1
3	Lady Gaga	F	1986	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73



Queries

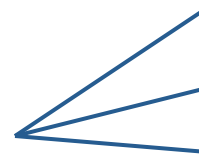
```
select * from People, Groups;
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>	Group <i>INT</i>
1	Greg Little	M	1981	2
2	Lady Gaga	F	1986	1
3	Lady Gaga	F	1986	2

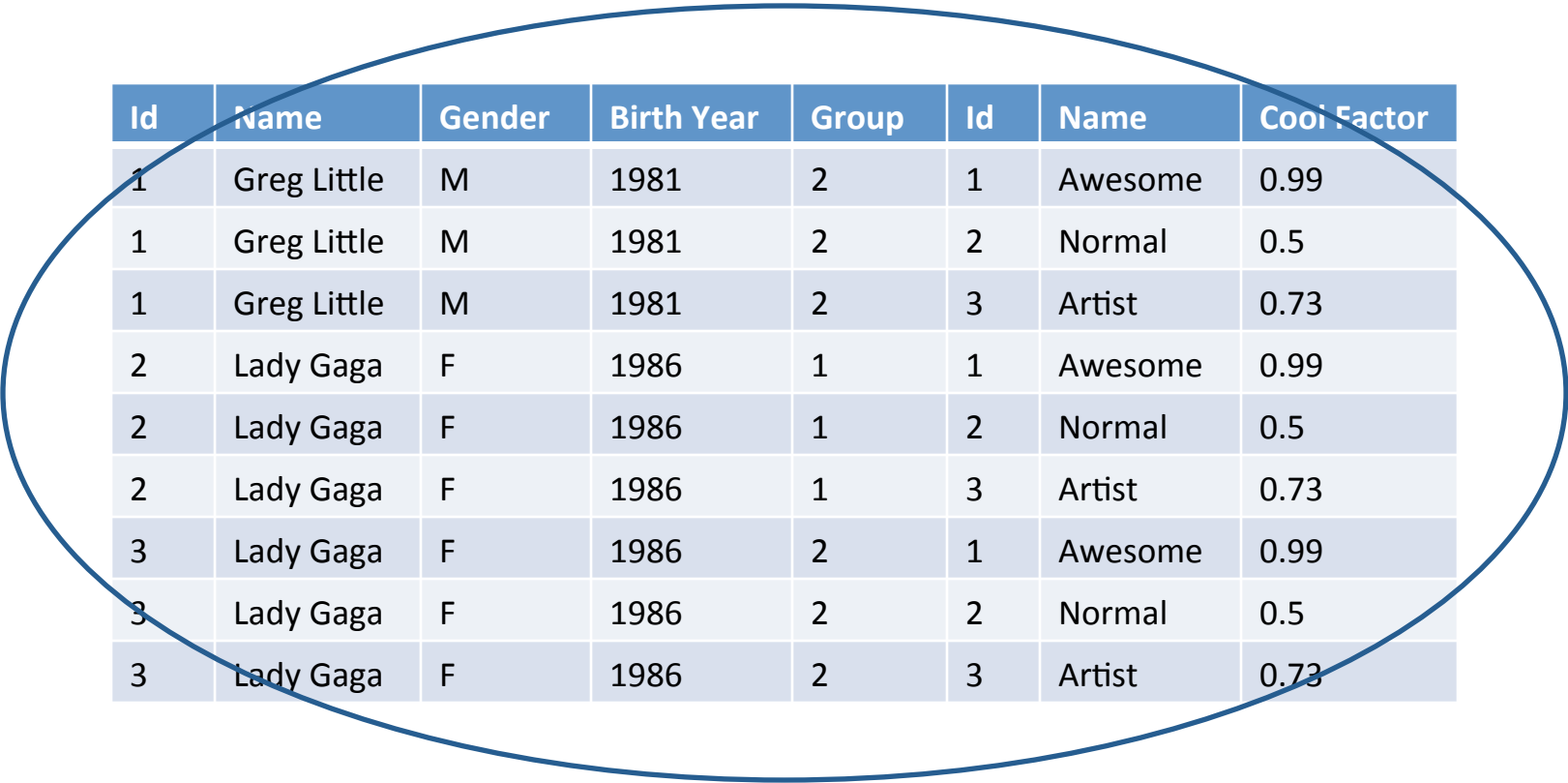
Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73



Queries

```
select * from People, Groups;
```



Id	Name	Gender	Birth Year	Group	Id	Name	Cool Factor
1	Greg Little	M	1981	2	1	Awesome	0.99
1	Greg Little	M	1981	2	2	Normal	0.5
1	Greg Little	M	1981	2	3	Artist	0.73
2	Lady Gaga	F	1986	1	1	Awesome	0.99
2	Lady Gaga	F	1986	1	2	Normal	0.5
2	Lady Gaga	F	1986	1	3	Artist	0.73
3	Lady Gaga	F	1986	2	1	Awesome	0.99
3	Lady Gaga	F	1986	2	2	Normal	0.5
3	Lady Gaga	F	1986	2	3	Artist	0.73

Queries

```
select * from People, Groups;
```

Id	Name	Gender	Birth Year	Group	Id	Name	Cool Factor
1	Greg Little	M	1981	2	1	Awesome	0.99
1	Greg Little	M	1981	2	2	Normal	0.5
1	Greg Little	M	1981	2	3	Artist	0.73
2	Lady Gaga	F	1986	1	1	Awesome	0.99
2	Lady Gaga	F	1986	1	2	Normal	0.5
2	Lady Gaga	F	1986	1	3	Artist	0.73
3	Lady Gaga	F	1986	2	1	Awesome	0.99
3	Lady Gaga	F	1986	2	2	Normal	0.5
3	Lady Gaga	F	1986	2	3	Artist	0.73

Queries

```
select * from People, Groups  
where Group = Id;
```

Id	Name	Gender	Birth Year	Group	Id	Name	Cool Factor
1	Greg Little	M	1981	2	1	Awesome	0.99
1	Greg Little	M	1981	2	2	Normal	0.5
1	Greg Little	M	1981	2	3	Artist	0.73
2	Lady Gaga	F	1986	1	1	Awesome	0.99
2	Lady Gaga	F	1986	1	2	Normal	0.5
2	Lady Gaga	F	1986	1	3	Artist	0.73
3	Lady Gaga	F	1986	2	1	Awesome	0.99
3	Lady Gaga	F	1986	2	2	Normal	0.5
3	Lady Gaga	F	1986	2	3	Artist	0.73

Queries

```
select * from People, Groups  
where Group = Id;
```

Id	Name	Gender	Birth Year	Group	Id	Name	Cool Factor
1	Greg Little	M	1981	2	1	Awesome	0.99
1	Greg Little	M	1981	2	2	Normal	0.5
1	Greg Little	M	1981	2	3	Artist	0.73
2	Lady Gaga	F	1986	1	1	Awesome	0.99
2	Lady Gaga	F	1986	1	2	Normal	0.5
2	Lady Gaga	F	1986	1	3	Artist	0.73
3	Lady Gaga	F	1986	2	1	Awesome	0.99
3	Lady Gaga	F	1986	2	2	Normal	0.5
3	Lady Gaga	F	1986	2	3	Artist	0.73

Queries

```
select * from People, Groups  
where `Group` = Id;
```

Id	Name	Gender	Birth Year	Group	Id	Name	Cool Factor
1	Greg Little	M	1981	2	1	Awesome	0.99
1	Greg Little	M	1981	2	2	Normal	0.5
1	Greg Little	M	1981	2	3	Artist	0.73
2	Lady Gaga	F	1986	1	1	Awesome	0.99
2	Lady Gaga	F	1986	1	2	Normal	0.5
2	Lady Gaga	F	1986	1	3	Artist	0.73
3	Lady Gaga	F	1986	2	1	Awesome	0.99
3	Lady Gaga	F	1986	2	2	Normal	0.5
3	Lady Gaga	F	1986	2	3	Artist	0.73

Queries

```
select * from People, Groups
where Group = Id;
```

Id	Name	Gender	Birth Year	Group	Id	Name	Cool Factor
1	Greg Little	M	1981	2	1	Awesome	0.99
1	Greg Little	M	1981	2	2	Normal	0.5
1	Greg Little	M	1981	2	3	Artist	0.73
2	Lady Gaga	F	1986	1	1	Awesome	0.99
2	Lady Gaga	F	1986	1	2	Normal	0.5
2	Lady Gaga	F	1986	1	3	Artist	0.73
3	Lady Gaga	F	1986	2	1	Awesome	0.99
3	Lady Gaga	F	1986	2	2	Normal	0.5
3	Lady Gaga	F	1986	2	3	Artist	0.73


Queries

```
select * from `People`, `Groups`  
where `Group` = `Id`;
```

Id	Name	Gender	Birth Year	Group	Id	Name	Cool Factor
1	Greg Little	M	1981	2	1	Awesome	0.99
1	Greg Little	M	1981	2	2	Normal	0.5
1	Greg Little	M	1981	2	3	Artist	0.73
2	Lady Gaga	F	1986	1	1	Awesome	0.99
2	Lady Gaga	F	1986	1	2	Normal	0.5
2	Lady Gaga	F	1986	1	3	Artist	0.73
3	Lady Gaga	F	1986	2	1	Awesome	0.99
3	Lady Gaga	F	1986	2	2	Normal	0.5
3	Lady Gaga	F	1986	2	3	Artist	0.73

Queries

```
select * from `People`, `Groups`  
where `Group` = `Id`;
```



Id	Name	Gender	Birth Year	Group	Id	Name	Cool Factor
1	Greg Little	M	1981	2	1	Awesome	0.99
1	Greg Little	M	1981	2	2	Normal	0.5
1	Greg Little	M	1981	2	3	Artist	0.73
2	Lady Gaga	F	1986	1	1	Awesome	0.99
2	Lady Gaga	F	1986	1	2	Normal	0.5
2	Lady Gaga	F	1986	1	3	Artist	0.73
3	Lady Gaga	F	1986	2	1	Awesome	0.99
3	Lady Gaga	F	1986	2	2	Normal	0.5
3	Lady Gaga	F	1986	2	3	Artist	0.73

Queries

```
select * from `People`, `Groups`  
where `Group` = `Groups`.`Id`;
```

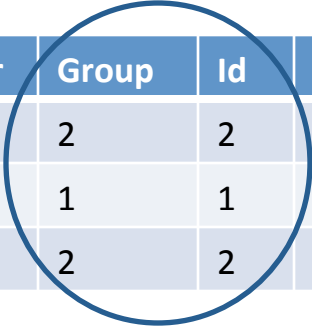


Id	Name	Gender	Birth Year	Group	Id	Name	Cool Factor
1	Greg Little	M	1981	2	1	Awesome	0.99
1	Greg Little	M	1981	2	2	Normal	0.5
1	Greg Little	M	1981	2	3	Artist	0.73
2	Lady Gaga	F	1986	1	1	Awesome	0.99
2	Lady Gaga	F	1986	1	2	Normal	0.5
2	Lady Gaga	F	1986	1	3	Artist	0.73
3	Lady Gaga	F	1986	2	1	Awesome	0.99
3	Lady Gaga	F	1986	2	2	Normal	0.5
3	Lady Gaga	F	1986	2	3	Artist	0.73

Queries

```
select * from `People`, `Groups`  
where `Group` = `Groups`.`Id`;
```

Id	Name	Gender	Birth Year	Group	Id	Name	Cool Factor
1	Greg Little	M	1981	2	2	Normal	0.5
2	Lady Gaga	F	1986	1	1	Awesome	0.99
3	Lady Gaga	F	1986	2	2	Normal	0.5



Queries

```
select * from `People` p, `Groups` g  
where `Group` = `Groups`.`Id`;
```

Id	Name	Gender	Birth Year	Group	Id	Name	Cool Factor
1	Greg Little	M	1981	2	2	Normal	0.5
2	Lady Gaga	F	1986	1	1	Awesome	0.99
3	Lady Gaga	F	1986	2	2	Normal	0.5

Queries

```
select * from `People` p, `Groups` g  
where `Group` = g.`Id` ;
```

Id	Name	Gender	Birth Year	Group	Id	Name	Cool Factor
1	Greg Little	M	1981	2	2	Normal	0.5
2	Lady Gaga	F	1986	1	1	Awesome	0.99
3	Lady Gaga	F	1986	2	2	Normal	0.5

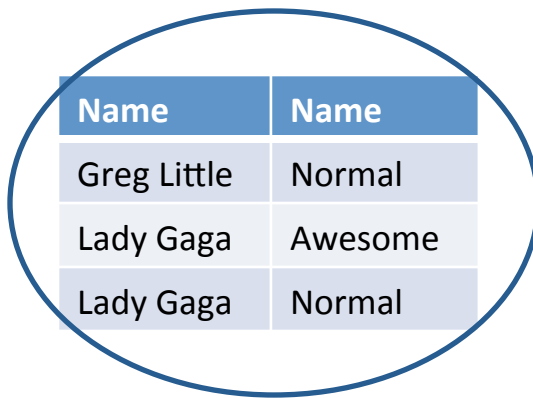
Queries

```
select p.Name, g.Name from `People` p, `Groups` g  
where `Group` = g.`Id`;
```

Id	Name	Gender	Birth Year	Group	Id	Name	Cool Factor
1	Greg Little	M	1981	2	2	Normal	0.5
2	Lady Gaga	F	1986	1	1	Awesome	0.99
3	Lady Gaga	F	1986	2	2	Normal	0.5

Queries

```
select p.Name, g.Name from `People` p, `Groups` g  
where `Group` = g.`Id`;
```



Name	Name
Greg Little	Normal
Lady Gaga	Awesome
Lady Gaga	Normal

Queries

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Find “Awesome” People

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Find “Awesome” People

select *

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Find “Awesome” People

```
select *  
from People, `People In Groups`, Groups
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Find “Awesome” People

```
select *  
from People p, `People In Groups` pg, Groups g
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Find “Awesome” People

```
select *  
from People p, `People In Groups` pg, Groups g  
p.Id = pg.Person
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Find “Awesome” People

```
select *  
from People p, `People In Groups` pg, Groups g  
p.Id = pg.Person and pg.Group = g.Id
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Find “Awesome” People

```
select *  
from People p, `People In Groups` pg, Groups g  
p.Id = pg.Person and pg.Group = g.Id  
and g.Name = 'Awesome';
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

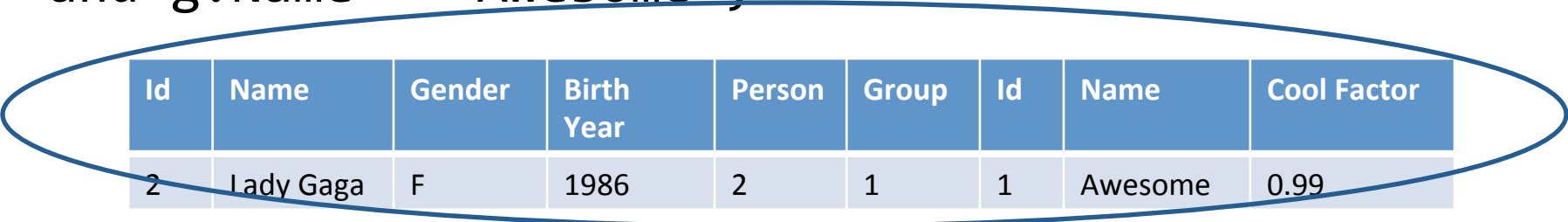
Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Find “Awesome” People

```
select *  
from People p, `People In Groups` pg, Groups g  
p.Id = pg.Person and pg.Group = g.Id  
and g.Name = 'Awesome';
```



Id	Name	Gender	Birth Year	Person	Group	Id	Name	Cool Factor
2	Lady Gaga	F	1986	2	1	1	Awesome	0.99

People

Id	Name	Gender	Birth Year
<i>INT</i>	<i>VARCHAR(20)</i>	<i>VARCHAR(1)</i>	<i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person	Group
<i>INT</i>	<i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id	Name	Cool Factor
<i>INT</i>	<i>VARCHAR(20)</i>	<i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Find “Awesome” People

```
select p.Name, g.Name
from People p, `People In Groups` pg, Groups g
p.Id = pg.Person and pg.Group = g.Id
and g.Name = 'Awesome';
```

Id	Name	Gender	Birth Year	Person	Group	Id	Name	Cool Factor
2	Lady Gaga	F	1986	2	1	1	Awesome	0.99

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

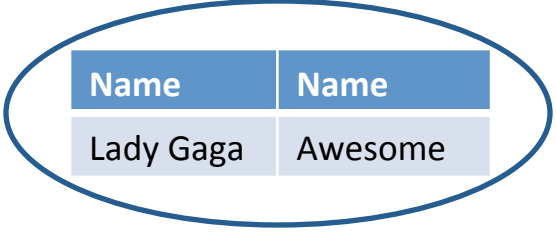
Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Find “Awesome” People

```
select p.Name, g.Name
from People p, `People In Groups` pg, Groups g
p.Id = pg.Person and pg.Group = g.Id
and g.Name = 'Awesome';
```



Name	Name
Lady Gaga	Awesome

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Chapter 2.5

More Queries

Ordering

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Ordering

```
select * from Groups;
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

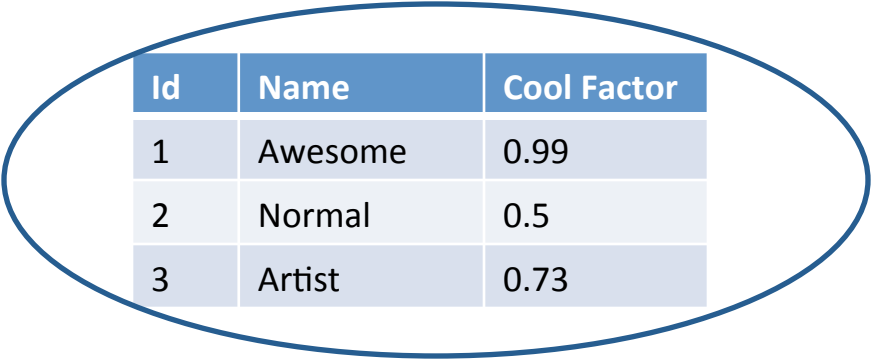
Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Ordering

```
select * from Groups;
```



Id	Name	Cool Factor
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Ordering

```
select * from Groups  
order by `Cool Factor`;
```

Id	Name	Cool Factor
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Ordering

```
select * from Groups
order by `Cool Factor`;
```

Id	Name	Cool Factor
2	Normal	0.5
3	Artist	0.73
1	Awesome	0.99

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Ordering

```
select * from Groups
order by `Cool Factor` desc;
```

Id	Name	Cool Factor
2	Normal	0.5
3	Artist	0.73
1	Awesome	0.99

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Ordering

```
select * from Groups
order by `Cool Factor` desc;
```

Id	Name	Cool Factor
1	Awesome	0.99
3	Artist	0.73
2	Normal	0.5

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Ordering

```
select * from Groups
order by `Cool Factor` desc
limit 1;
```

Id	Name	Cool Factor
1	Awesome	0.99
3	Artist	0.73
2	Normal	0.5

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

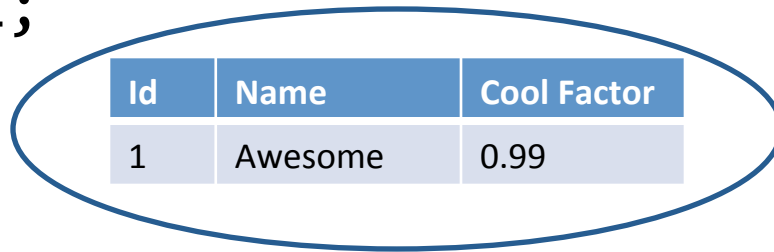
Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Ordering

```
select * from Groups
order by `Cool Factor` desc
limit 1;
```



Id	Name	Cool Factor
1	Awesome	0.99

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Aggregation

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Aggregation

```
select min(`Cool Factor`) from Groups
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

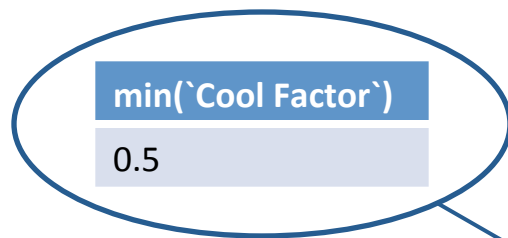
Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Aggregation

```
select min(`Cool Factor`) from Groups
```



min(`Cool Factor`)
0.5

People

Id	Name	Gender	Birth Year
INT	VARCHAR(20)	VARCHAR(1)	INT
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person	Group
INT	INT
1	2
2	1
2	3
3	2

Groups

Id	Name	Cool Factor
INT	VARCHAR(20)	FLOAT
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Aggregation

```
select max(`Cool Factor`) from Groups
```

min(`Cool Factor`)

0.5

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

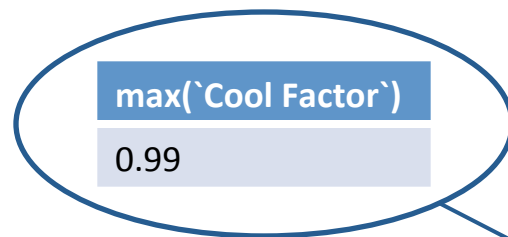
Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Aggregation

```
select max(`Cool Factor`) from Groups
```



max(`Cool Factor`)
0.99

People

Id	Name	Gender	Birth Year
INT	VARCHAR(20)	VARCHAR(1)	INT
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person	Group
INT	INT
1	2
2	1
2	3
3	2

Groups

Id	Name	Cool Factor
INT	VARCHAR(20)	FLOAT
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Aggregation

```
select avg(`Cool Factor`) from Groups
```

max(`Cool Factor`)

0.99

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

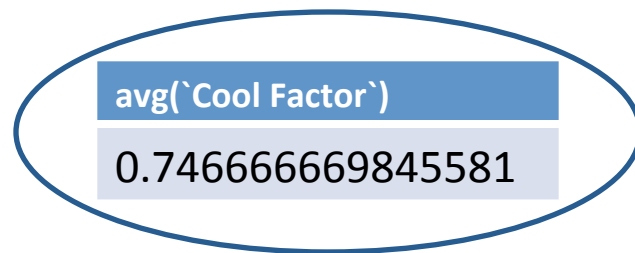
Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Aggregation

```
select avg(`Cool Factor`) from Groups
```



avg(`Cool Factor`)
0.746666669845581

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

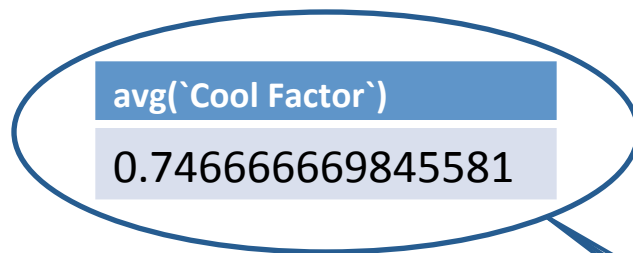
Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Aggregation

```
select avg(`Cool Factor`) from Groups
```



People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Chapter 3

Changing Stuff

Insert

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Insert

```
insert into people
(`Name`, `Gender`, `Birth Year`)
values ('Yafim Landa', 'M', 1988);
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Insert

```
insert into people
(`Name`, `Gender`, `Birth Year`)
values ('Yafim Landa', 'M', 1988);
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986
4	Yafim Landa	M	1988

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Insert

```
insert into people
(`Name`, `Gender`, `Birth Year`)
values ('Yafim Landa', 'M', 1989);
```

Show Demo

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986
4	Yafim Landa	M	1988

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Update

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986
4	Yafim Landa	M	1988

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Update

```
update people
set `Birth Year` = 1989
where Name = 'Yafim Landa';
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986
4	Yafim Landa	M	1988

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Update

```
update people  
set `Birth Year` = 1989  
where Name = 'Yafim Landa';
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986
4	Yafim Landa	M	1989

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Update

```
update people  
set `Birth Year` = 1989  
where Name = 'Yafim Landa';
```

Show Demo

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986
4	Yafim Landa	M	1989

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Delete

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986
4	Yafim Landa	M	1989

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Delete

```
delete from people  
where Name = 'Lady Gaga';
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986
4	Yafim Landa	M	1989

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Delete

```
delete from people  
where Name = 'Lady Gaga';
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
2	Lady Gaga	F	1986
3	Lady Gaga	F	1986
4	Yafim Landa	M	1989

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
2	3
3	2

Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Delete

```
delete from people  
where Name = 'Lady Gaga';
```

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
4	Yafim Landa	M	1989

People In Groups

Person <i>INT</i>	Group <i>INT</i>
1	2
2	1
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Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
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Delete

```
delete from people  
where Name = 'Lady Gaga';
```

Show Demo

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
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People In Groups

Person <i>INT</i>	Group <i>INT</i>
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Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Create

People

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Gender <i>VARCHAR(1)</i>	Birth Year <i>INT</i>
1	Greg Little	M	1981
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Show Demo

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Groups

Id <i>INT</i>	Name <i>VARCHAR(20)</i>	Cool Factor <i>FLOAT</i>
1	Awesome	0.99
2	Normal	0.5
3	Artist	0.73

Done

:)