Съединения
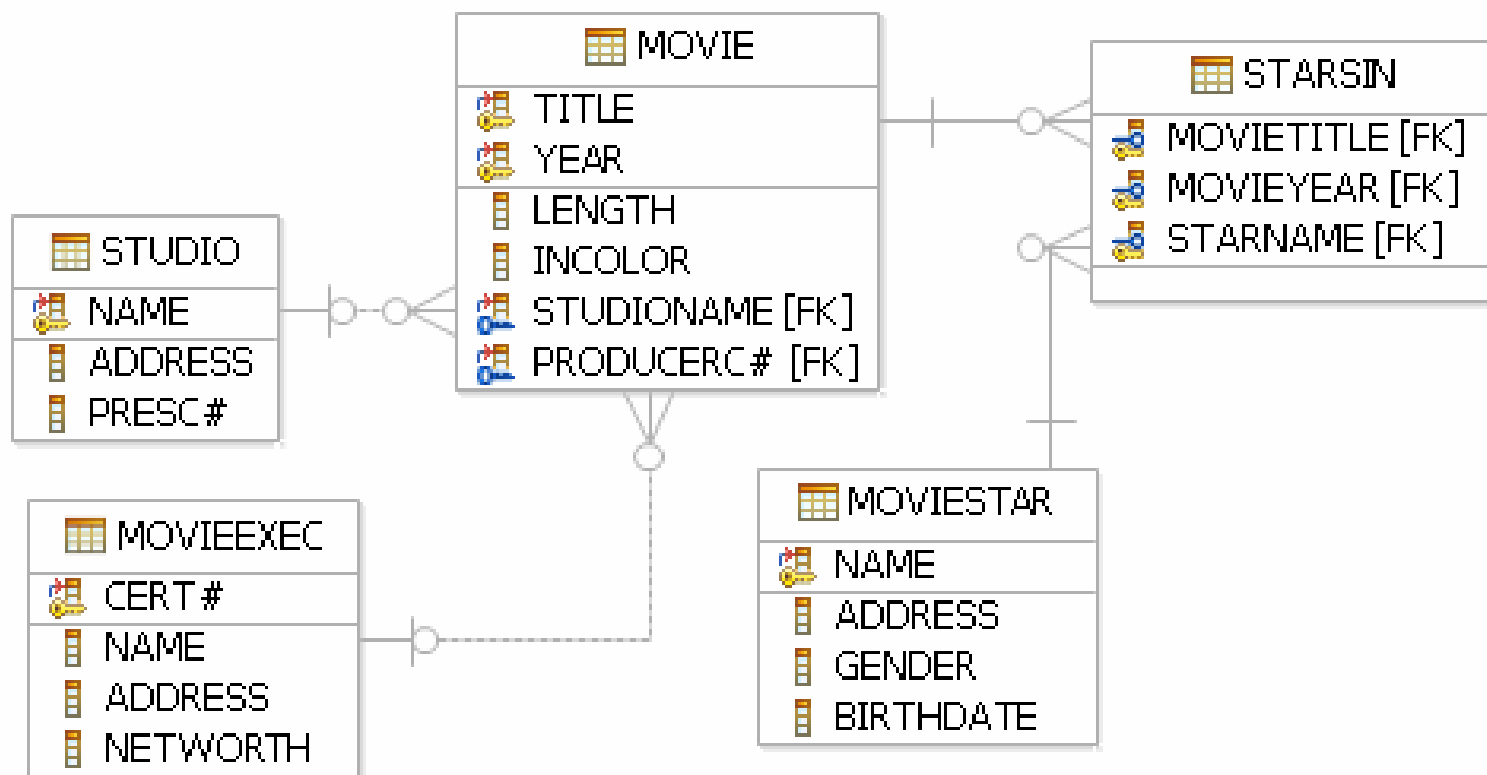
JOIN

Връзка между релации (таблици)
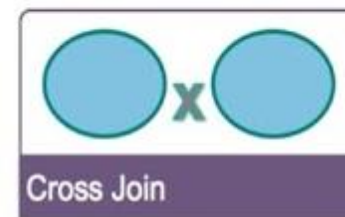
- Първичен ключ (PRIMARY KEY)
- Външен ключ (FOREIGN KEY)

Видове съединения (JOIN)

- [Inner] JOIN

- LEFT [Outer] JOIN

- RIGTH [Outer] JOIN

- FULL [Outer] JOIN

- Cross JOIN

JOIN – Синтаксис 1

```
SELECT STUDIONAME, TITLE, STARNAME
FROM MOVIE , STARSIN
WHERE TITLE = MOVIETITLE AND YEAR = MOVIEYEAR
AND LENGTH > 130
ORDER BY title;
```

	STUDIONAME	TITLE	STARNAME
1	MGM	Terms of Endearment	Jack Nicholson
2	MGM	Terms of Endearment	Jane Fonda

JOIN – Синтаксис 2

```
SELECT STUDIONAME, TITLE, STARNAME
FROM MOVIE JOIN STARSIN
ON TITLE = MOVIETITLE
AND YEAR = MOVIEYEAR
WHERE LENGTH > 130
ORDER BY title;
```

	STUDIONAME	TITLE	STARNAME
1	MGM	Terms of Endearment	Jack Nicholson
2	MGM	Terms of Endearment	Jane Fonda

LEFT JOIN

```
SELECT STUDIONAME, TITLE, STARNAME
FROM MOVIE LEFT JOIN STARSIN
ON TITLE = MOVIETITLE
AND YEAR = MOVIEYEAR
WHERE LENGTH > 130
ORDER BY title;
```

	STUDIONAME	TITLE	STARNAME
1	MGM	Gone With the Wind	NULL
2	Paramount	Star Trek	NULL
3	MGM	Terms of Endearment	Jack Nicholson
4	MGM	Terms of Endearment	Jane Fonda

RIGHT JOIN

```
SELECT STUDIONAME, TITLE, STARNAME

FROM MOVIE RIGHT JOIN STARSIN

ON TITLE = MOVIETITLE

AND YEAR = MOVIEYEAR

WHERE LENGTH > 130

ORDER BY title;
```

	STUDIONAME	TITLE	STARNAME
1	MGM	Terms of Endearment	Jack Nicholson
2	MGM	Terms of Endearment	Jane Fonda

FULL JOIN

```
SELECT STUDIONAME, TITLE, STARNAME

FROM MOVIE FULL JOIN STARSIN

ON TITLE = MOVIETITLE

AND YEAR = MOVIEYEAR

WHERE LENGTH > 130

ORDER BY title;
```

	STUDIONAME	TITLE	STARNAME
1	MGM	Gone With the Wind	NULL
2	Paramount	Star Trek	NULL
3	MGM	Terms of Endearment	Jack Nicholson
4	MGM	Terms of Endearment	Jane Fonda

SELF JOIN

```
SELECT DISTINCT M1.TITLE, M1.YEAR

FROM MOVIE M1 JOIN MOVIE M2

ON M1.STUDIONAME=M2.STUDIONAME

WHERE M1.YEAR < M2.YEAR

AND    UPPER(M2.TITLE) LIKE '%WAR%';
```

	TITLE	YEAR
1	Logan's run	1976
2	Star Wars	1977

Multiple JOINS

```
SELECT STARNAME, BIRTHDATE, STUDIONAME

FROM MOVIE JOIN STARSIN

ON TITLE = MOVIETITLE

AND YEAR = MOVIEYEAR

JOIN MOVIESTAR ON NAME=STARNAME

WHERE LENGTH > 130

ORDER BY title;
```

	STARNAME	BIRTHDATE	STUDIONAME
1	Jane Fonda	1977-07-07	MGM
2	Jack Nicholson	1949-05-05	MGM

Cross Join (Декартово произведение)

```
SELECT STUDIONAME, TITLE, STARNAME
FROM MOVIE , STARSIN;
```

Декартово произвдение на двете релации включва и комбинации от кортежи, дори и те да не са логически свързани (верни)!

	STUDIONAME	TITLE	STARNAME
1	Disney	Pretty Woman	Alec Baldwin
2	USA Entertainm ...	The Man Who Wasn't There	Alec Baldwin
3	Fox	Logan's run	Alec Baldwin
4	Fox	Star Wars	Alec Baldwin
5	Fox	Star Wars: Empire Strikes ...	Alec Baldwin
6	Paramount	Star Trek	Alec Baldwin
7	Paramount	Star Trek: Nemesis	Alec Baldwin
8	MGM	Terms of Endearment	Alec Baldwin
9	MGM	The Usual Suspects	Alec Baldwin
10	MGM	Gone With the Wind	Alec Baldwin
11	Disney	Pretty Woman	Harrison Ford
12	USA Entertainm ...	The Man Who Wasn't There	Harrison Ford
13	Fox	Logan's run	Harrison Ford
14	Fox	Star Wars	Harrison Ford
15	Fox	Star Wars: Empire Strikes ...	Harrison Ford