Name: Manish Kumar

Enrollment: 231040012008

Answer 1: σ year>2000 movies

Table:

"movies.id", "movies.name", "movies.year", "movies.rank"

10934, Aliens of the Deep, 2005, 6.5

"96779","Earthship.TV","2001","5.6"

"105938", "Expedition: Bismarck", "2002", "7.5"

"127297", "Ghosts of the Abyss", "2003", "6.7"

"159665", "Inglorious Bastards", "2006", "8.3"

"176711","Kill Bill: Vol. 1","2003","8.4"

"176712","Kill Bill: Vol. 2","2004","8.2"

"393538", "Jimmy Kimmel Live!", "2003", "6.7"

Answer 2: σ year>2000 and rank>6 movies

Table:

"movies.id", "movies.name", "movies.year", "movies.rank"

"10934","Aliens of the Deep","2005","6.5"

"105938", "Expedition: Bismarck", "2002", "7.5"

"127297","Ghosts of the Abyss","2003","6.7"

"159665", "Inglorious Bastards", "2006", "8.3"

"176711","Kill Bill: Vol. 1","2003","8.4"

"176712","Kill Bill: Vol. 2","2004","8.2"

"393538","Jimmy Kimmel Live!","2003","6.7"

Answer 3: i) π year, name, rank σ year>2000

ii) π year, name,rankoyear>2000 movies and rank>6 movies

```
Table i:
"movies.year", "movies.name", "movies.rank"
"2005","Aliens of the Deep","6.5"
"2001","Earthship.TV","5.6"
"2002", "Expedition: Bismarck", "7.5"
"2003", "Ghosts of the Abyss", "6.7"
"2006", "Inglorious Bastards", "8.3"
"2003", "Kill Bill: Vol. 1", "8.4"
"2004", "Kill Bill: Vol. 2", "8.2"
"2003", "Jimmy Kimmel Live!", "6.7"
Table ii:
"movies.year", "movies.name", "movies.rank"
"2005", "Aliens of the Deep", "6.5"
"2002", "Expedition: Bismarck", "7.5"
"2003", "Ghosts of the Abyss", "6.7"
"2006", "Inglorious Bastards", "8.3"
"2003","Kill Bill: Vol. 1","8.4"
"2004", "Kill Bill: Vol. 2", "8.2"
"2003", "Jimmy Kimmel Live!", "6.7"
```

Answer 4: π movies.name, movies.year, movies.rank, movies_genres.genre σ year > 2000 and rank > 6 (movies movies.id = movies_genres.movie_id movies_genres)

Table:

```
"movies.name", "movies.year", "movies.rank", "movies genres.genre"
"Aliens of the Deep","2005","6.5","Documentary"
"Expedition: Bismarck","2002","7.5","Documentary"
"Ghosts of the Abyss","2003","6.7","Documentary"
"Ghosts of the Abyss","2003","6.7","Family"
"Ghosts of the Abyss","2003","6.7","Short"
"Inglorious Bastards","2006","8.3","Action"
"Inglorious Bastards", "2006", "8.3", "Drama"
"Inglorious Bastards","2006","8.3","War"
"Kill Bill: Vol. 1","2003","8.4","Action"
"Kill Bill: Vol. 1","2003","8.4","Crime"
"Kill Bill: Vol. 1","2003","8.4","Thriller"
"Kill Bill: Vol. 2","2004","8.2","Action"
"Kill Bill: Vol. 2","2004","8.2","Drama"
"Kill Bill: Vol. 2","2004","8.2","Romance"
"Kill Bill: Vol. 2","2004","8.2","Thriller"
Answer 5: π movies.name, movies.year, movies.rank, directors.first_name,
directors.last name, movies genres.genre σ movies.year > 2000 and
movies.rank > 6 ( ( movies movies.id = movies genres.movie id
movies_genres ) movies.id = movies_directors.movie_id movies_directors )
movies directors.director id = directors.id directors)
Table:
"movies.name", "movies.year", "movies.rank", "movies genres.genre", "directors.fir
st name", "directors.last name"
"Aliens of the Deep","2005","6.5","Documentary","James (I)","Cameron"
"Expedition: Bismarck","2002","7.5","Documentary","James (I)","Cameron"
```

```
"Ghosts of the Abyss","2003","6.7","Documentary","James (I)","Cameron"
"Ghosts of the Abyss","2003","6.7","Family","James (I)","Cameron"
"Ghosts of the Abyss","2003","6.7","Short","James (I)","Cameron"
"Inglorious Bastards", "2006", "8.3", "Action", "Quentin", "Tarantino"
"Inglorious Bastards","2006","8.3","Drama","Quentin","Tarantino"
"Inglorious Bastards", "2006", "8.3", "War", "Quentin", "Tarantino"
"Kill Bill: Vol. 1","2003","8.4","Action","Quentin","Tarantino"
"Kill Bill: Vol. 1","2003","8.4","Crime","Quentin","Tarantino"
"Kill Bill: Vol. 1","2003","8.4","Thriller","Quentin","Tarantino"
"Kill Bill: Vol. 2","2004","8.2","Action","Quentin","Tarantino"
"Kill Bill: Vol. 2","2004","8.2","Drama","Quentin","Tarantino"
"Kill Bill: Vol. 2","2004","8.2","Romance","Quentin","Tarantino"
"Kill Bill: Vol. 2","2004","8.2","Thriller","Quentin","Tarantino"
Answer 6: \pi actors.id,actors.first name,actors.last name ((roles \bowtie
roles.movie id = movies genres.movie id movies genres) ⋈ roles.actor id
actors.id actors) - \pi actors.id,actors.first name,actors.last name (\sigma
movies genres.genre = 'Action'(roles ⋈ roles.movie id =
movies genres.movie id movies genres) \bowtie roles.actor id = actors.id actors)
Table:(Total 740 rows)
"actors.id", "actors.first name", "actors.last name"
"69940","James (I)","Cameron"
"128257","Richard","Doyle"
"137802","Bob","Elkins"
"185164","Fred","Griffith"
"232844","Dean (VII)","Jones"
"259373","Karl (II)","Kuhn"
```

```
"285456","Curt","Lowens"
"428322","Ty","Sears"
Answer 7: \pi actors.first name, actors.last name (actors
actors.first name = directors.first name and actors.last name =
directors.last name directors)
Table:
"actors.first_name","actors.last_name"
"James (I)","Cameron"
"Stanley", "Kubrick"
"Quentin", "Tarantino"
Answer 8: π actors.first_name, actors.last_name ( actors
actors.first_name = directors.first_name and actors.last_name =
directors.last name directors)
Table:
"directors.first name", "directors.last name"
"James (I)","Cameron"
"Stanley", "Kubrick"
"Quentin", "Tarantino"
Answer 9: \pi actors.first_name, actors.last_name \sigma role =
'Doctor' ( actors actors.id = roles.actor_id roles )
Table:
"actors.first_name","actors.last_name"
"Blain", "Fairman"
"Craig (I)","Hunter"
"Halder","Hanson"
"Anne","Jackson"
```