

# Graph Theory, Combinatorics and Applications

## Neo4j Assignment

### Team members :

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**Database chosen :** Movie Database

### Description of the database :

#### Node:

1. Movie : A node with label Movie has properties title, genre and length (length here is the duration of the movie in minutes).
2. Theatres : A node with label Theatres has properties name and loc (loc here is location of the theatre).
3. Ticket: A node with label Ticket has properties type (child, adult and senior ) and price (80, 200 and 150 ).
4. Class : A node with label Class has properties ctype (Default, Silver, Gold, Platinum, Diamond) and premium (0, 50, 100, 200, 250).
5. View : A node with label View has property dim (2D, 3D, 4D).
6. Person : A node with label Person has properties pname (person name) and qty (number of tickets booked).

#### Relations:

1. At : Defines the relationship between movie and theatre. The movie is playing at the theatre.
2. Watch : Defines relationship between person and movie . People watch movies.
3. Class : Defines relationship between person and class. Person has bought a ticket for a particular class.
4. Place : Defines relationship between person and theatre. Person watches movie at particular theatre.
5. Ticket : Defines relationship between person and ticket. Person buys a ticket of a particular type .

6. View : Defines relationship between person and view. Person buys a ticket to watch a movie in a particular view .

### Creation of database :

**Node creation** - Movie,Theaters,Person ,Class,Ticket

```
create(n:Movie {title:'HP', genre:'Fantasy',length:126});
create(n:Movie {title:'Fears', genre:'Action',length:124});
create(n:Movie {title:'Seaborn', genre:'Comedy',length:92});
create(n:Movie {title:'Matrices', genre:'Action',length:129});
create(n:Movie {title:'Mode', genre:'Fantasy',length:116});
create(n:Movie {title:'Percy', genre:'Action',length:190});
create(n:Movie {title:'Battleships', genre:'Action',length:143});
create(n:Movie {title:'Kingmen', genre:'Fantasy',length:100});
create(n:Movie {title:'Charlie', genre:'Comedy',length:182});
create(n:Movie {title:'Terminators', genre:'Action',length:160});
create(n:Movie {title:'Neon', genre:'Fantasy',length:94});
create(n:Movie {title:'Argon', genre:'Scifi',length:123});
create(n:Movie {title:'Calcium', genre:'Scifi',length:134});
create(n:Movie {title:'Unix', genre:'Scifi',length:150});
create(n:Movie {title:'Linux', genre:'Scifi',length:102});
```

```
create(n:Theatres {name:'PVR', loc:'Bengaluru'});
create(n:Theatres {name:'INOX', loc:'Pune'});
create(n:Theatres {name:'Gopalan', loc:'Mumbai'});
create(n:Theatres {name:'Orion', loc:'Delhi'});
create(n:Theatres {name:'Wonders', loc:'Ahmedabad'});
create(n:Theatres {name:'Lights', loc:'Bengaluru'});
create(n:Theatres {name:'Cam', loc:'Lucknow'});
create(n:Theatres {name:'Act', loc:'Chennai'});
create(n:Theatres {name:'Discover', loc:'Mysuru'});
create(n:Theatres {name:'Arts', loc:'Mysuru'});
```

```
create(n:Ticket {type:'child', price:80});
create(n:Ticket {type:'adult', price:200});
create(n:Ticket {type:'senior', price:150});
```

```
create(n:Class {ctype:'Default', premium:0});
create(n:Class {ctype:'Silver', premium:50});
```

```
create(n:Class {ctype:'Gold', premium:100});
create(n:Class {ctype:'Platinum', premium:200});
create(n:Class {ctype:'Diamond', premium:250});
```

```
create(n:View {dim:'2D'});
create(n:View {dim:'3D'});
create(n:View {dim:'4D'});
```

```
create(n:Person {pname:'Satish', qty:2});
create(n:Person {pname:'Ram', qty:3});
create(n:Person {pname:'Sita', qty:5});
create(n:Person {pname:'Leela', qty:1});
create(n:Person {pname:'Uma', qty:1});
create(n:Person {pname:'Usha', qty:10});
create(n:Person {pname:'James', qty:2});
create(n:Person {pname:'Jack', qty:2});
create(n:Person {pname:'Priya', qty:5});
create(n:Person {pname:'Pam', qty:4});
create(n:Person {pname:'Sam', qty:5});
create(n:Person {pname:'Nick', qty:7});
create(n:Person {pname:'Bill', qty:3});
create(n:Person {pname:'William', qty:1});
create(n:Person {pname:'Fred', qty:2});
create(n:Person {pname:'George', qty:2});
create(n:Person {pname:'Ron', qty:6});
create(n:Person {pname:'Neville', qty:3});
create(n:Person {pname:'Harry', qty:2});
create(n:Person {pname:'Padma', qty:2});
```

### **Relationship creation :**

**At :** Connects nodes Movie and Theatre

```
match(m:Movie),(t:Theatres) where m.title='HP' and t.name='PVR' create(m)-[movie:at]->(t);
match(m:Movie),(t:Theatres) where m.title='HP' and t.name='INOX' create(m)-[movie:at]->(t);
```

```
match(m:Movie),(t:Theatres) where m.title='Fears' and t.name='Gopalan'
create(m)-[movie:at]->(t);
match(m:Movie),(t:Theatres) where m.title='Fears' and t.name='Cam' create(m)-[movie:at]->(t);
```

match(m:Movie),(t:Theatres) where m.title='Fears' and t.name='Lights'  
create(m)-[movie:at]->(t);

match(m:Movie),(t:Theatres) where m.title='Seaborn' and t.name='Orion'  
create(m)-[movie:at]->(t);  
match(m:Movie),(t:Theatres) where m.title='Seaborn' and t.name='Arts'  
create(m)-[movie:at]->(t);

match(m:Movie),(t:Theatres) where m.title='Matrices' and t.name='INOX'  
create(m)-[movie:at]->(t);  
match(m:Movie),(t:Theatres) where m.title='Matrices' and t.name='Wonders'  
create(m)-[movie:at]->(t);

match(m:Movie),(t:Theatres) where m.title='Mode' and t.name='PVR' create(m)-[movie:at]->(t);  
match(m:Movie),(t:Theatres) where m.title='Mode' and t.name='Arts' create(m)-[movie:at]->(t);  
match(m:Movie),(t:Theatres) where m.title='Mode' and t.name='Discover'  
create(m)-[movie:at]->(t);

match(m:Movie),(t:Theatres) where m.title='Percy' and t.name='Lights'  
create(m)-[movie:at]->(t);

match(m:Movie),(t:Theatres) where m.title='Battleships' and t.name='Cam'  
create(m)-[movie:at]->(t);  
match(m:Movie),(t:Theatres) where m.title='Battleships' and t.name='Lights'  
create(m)-[movie:at]->(t);

match(m:Movie),(t:Theatres) where m.title='Kingmen' and t.name='Gopalan'  
create(m)-[movie:at]->(t);  
match(m:Movie),(t:Theatres) where m.title='Kingmen' and t.name='Act'  
create(m)-[movie:at]->(t);

match(m:Movie),(t:Theatres) where m.title='Charlie' and t.name='Discover'  
create(m)-[movie:at]->(t);  
match(m:Movie),(t:Theatres) where m.title='Charlie' and t.name='Cam'  
create(m)-[movie:at]->(t);  
match(m:Movie),(t:Theatres) where m.title='Charlie' and t.name='Act' create(m)-[movie:at]->(t);

match(m:Movie),(t:Theatres) where m.title='Terminators' and t.name='Arts'  
create(m)-[movie:at]->(t);

match(m:Movie),(t:Theatres) where m.title='Terminators' and t.name='INOX'  
create(m)-[movie:at]->(t);

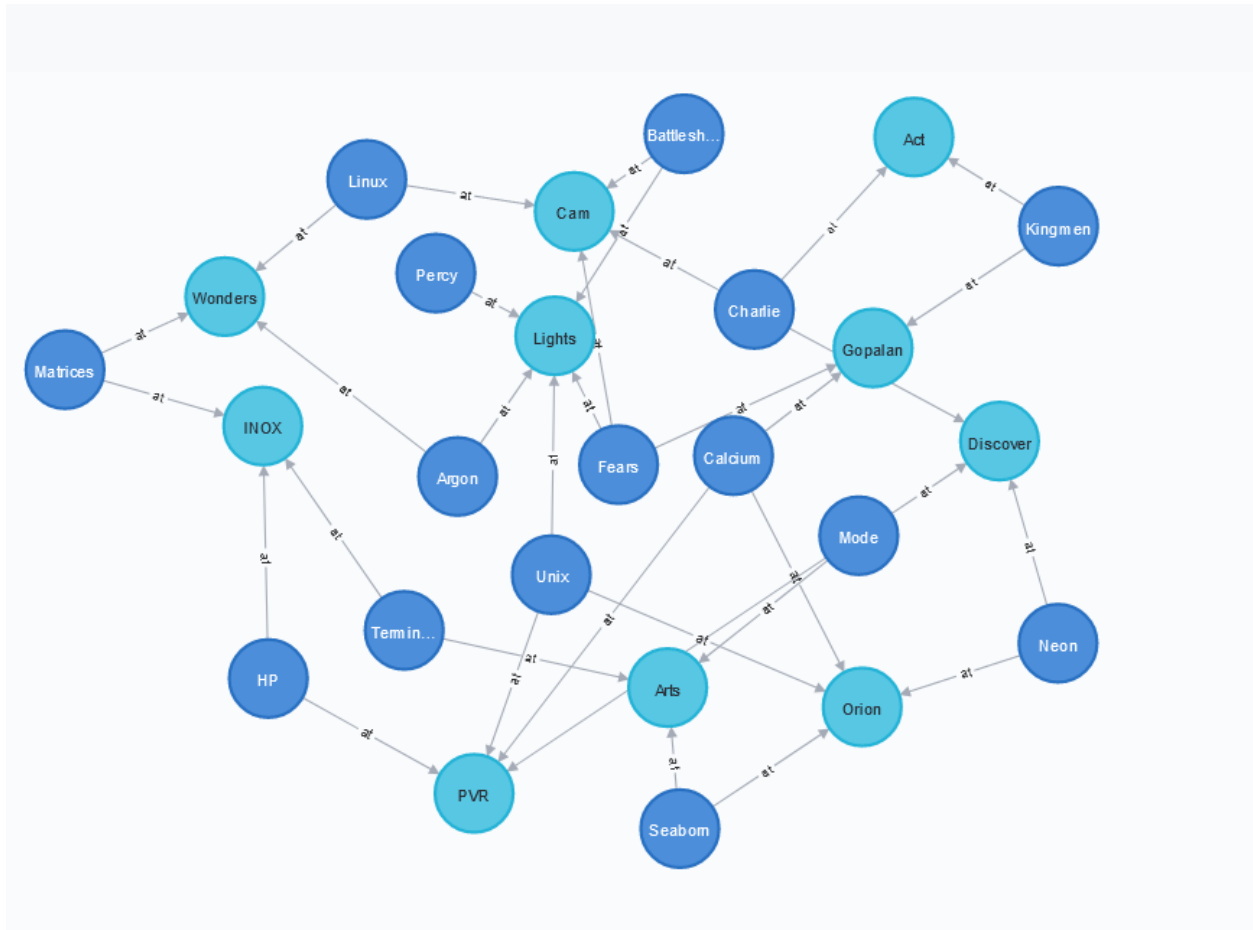
match(m:Movie),(t:Theatres) where m.title='Neon' and t.name='Orion' create(m)-[movie:at]->(t);  
match(m:Movie),(t:Theatres) where m.title='Neon' and t.name='Discover'  
create(m)-[movie:at]->(t);

match(m:Movie),(t:Theatres) where m.title='Argon' and t.name='Wonders'  
create(m)-[movie:at]->(t);  
match(m:Movie),(t:Theatres) where m.title='Argon' and t.name='Lights'  
create(m)-[movie:at]->(t);

match(m:Movie),(t:Theatres) where m.title='Calcium' and t.name='Gopalan'  
create(m)-[movie:at]->(t);  
match(m:Movie),(t:Theatres) where m.title='Calcium' and t.name='PVR'  
create(m)-[movie:at]->(t);  
match(m:Movie),(t:Theatres) where m.title='Calcium' and t.name='Orion'  
create(m)-[movie:at]->(t);

match(m:Movie),(t:Theatres) where m.title='Unix' and t.name='Lights' create(m)-[movie:at]->(t);  
match(m:Movie),(t:Theatres) where m.title='Unix' and t.name='PVR' create(m)-[movie:at]->(t);  
match(m:Movie),(t:Theatres) where m.title='Unix' and t.name='Orion' create(m)-[movie:at]->(t);

match(m:Movie),(t:Theatres) where m.title='Linux' and t.name='Cam' create(m)-[movie:at]->(t);  
match(m:Movie),(t:Theatres) where m.title='Linux' and t.name='Wonders'  
create(m)-[movie:at]->(t);



**Watch :** Connects nodes Person and theatre

**Place :** Connects nodes Person and Theatre

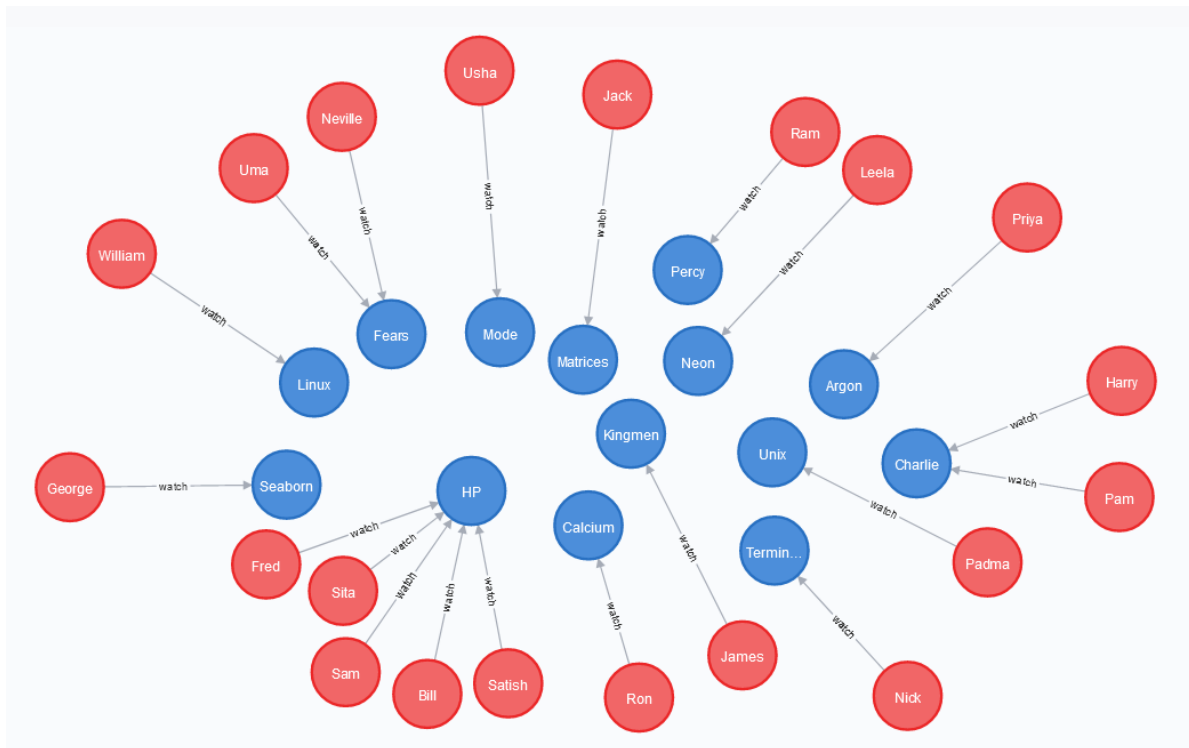
```

match (p:Person),(m:Movie),(t:Theatres) where p.pname='Satish' and m.title='HP' and
t.name='PVR' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;
match (p:Person),(m:Movie),(t:Theatres) where p.pname='George' and m.title='Seaborn' and
t.name='Orion' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;
match (p:Person),(m:Movie),(t:Theatres) where p.pname='Priya' and m.title='Argon' and
t.name='Lights' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;
match (p:Person),(m:Movie),(t:Theatres) where p.pname='Harry' and m.title='Charlie' and
t.name='Cam' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;
match (p:Person),(m:Movie),(t:Theatres) where p.pname='Padma' and m.title='Unix' and
t.name='Lights' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;
match (p:Person),(m:Movie),(t:Theatres) where p.pname='Usha' and m.title='Mode' and
t.name='Discover' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;

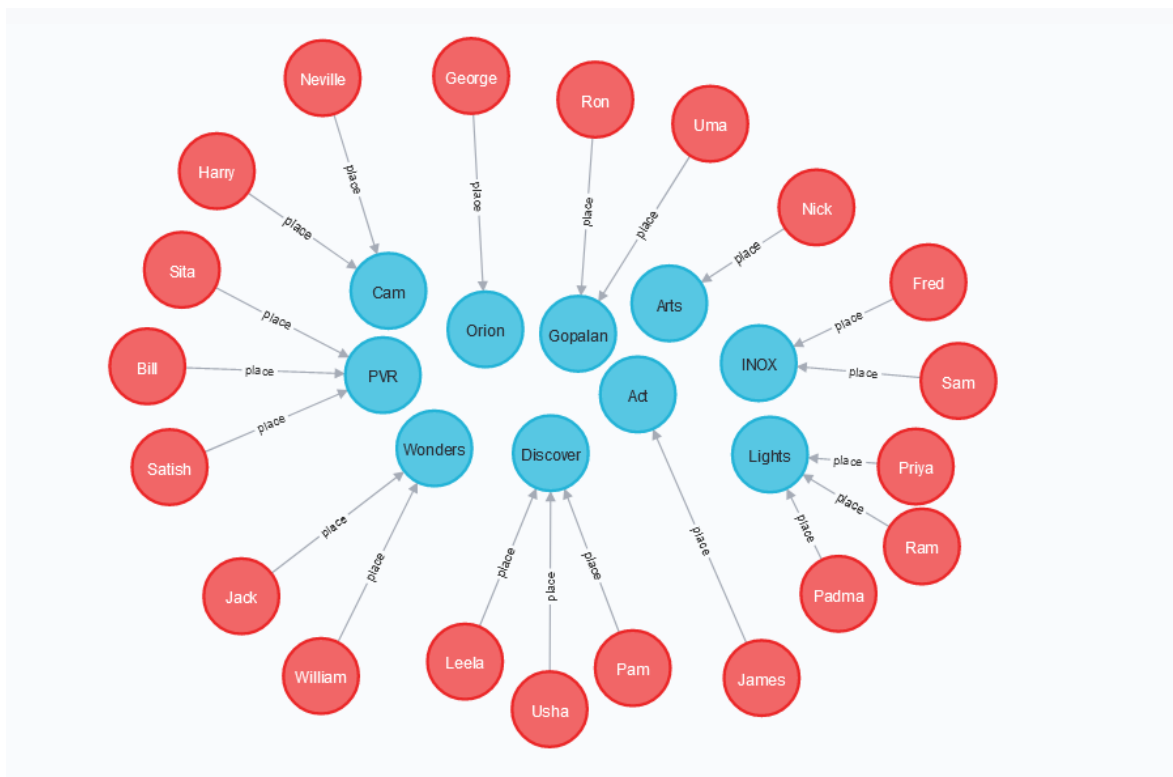
```

match (p:Person),(m:Movie),(t:Theatres) where p.pname='Fred' and m.title='HP' and  
t.name='INOX' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;  
match (p:Person),(m:Movie),(t:Theatres) where p.pname='Ram' and m.title='Percy' and  
t.name='Lights' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;  
match (p:Person),(m:Movie),(t:Theatres) where p.pname='William' and m.title='Linux' and  
t.name='Wonders' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;  
match (p:Person),(m:Movie),(t:Theatres) where p.pname='Ron' and m.title='Calcium' and  
t.name='Gopalan' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;  
match (p:Person),(m:Movie),(t:Theatres) where p.pname='Neville' and m.title='Fears' and  
t.name='Cam' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;  
match (p:Person),(m:Movie),(t:Theatres) where p.pname='Bill' and m.title='HP' and  
t.name='PVR' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;  
match (p:Person),(m:Movie),(t:Theatres) where p.pname='James' and m.title='Kingmen' and  
t.name='Act' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;  
match (p:Person),(m:Movie),(t:Theatres) where p.pname='Nick' and m.title='Terminators' and  
t.name='Arts' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;  
match (p:Person),(m:Movie),(t:Theatres) where p.pname='Sam' and m.title='HP' and  
t.name='INOX' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;  
match (p:Person),(m:Movie),(t:Theatres) where p.pname='Pam' and m.title='Charlie' and  
t.name='Discover' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;  
match (p:Person),(m:Movie),(t:Theatres) where p.pname='Uma' and m.title='Fears' and  
t.name='Gopalan' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;  
match (p:Person),(m:Movie),(t:Theatres) where p.pname='Leela' and m.title='Neon' and  
t.name='Discover' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;  
match (p:Person),(m:Movie),(t:Theatres) where p.pname='Sita' and m.title='HP' and  
t.name='PVR' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;  
match (p:Person),(m:Movie),(t:Theatres) where p.pname='Jack' and m.title='Matrices' and  
t.name='Wonders' create (p)-[prsn:watch]->(m), (p)-[pl:place]->(t) return p,m,t;

## Watch



## Place





**Class :** Connects nodes Person and class

**Ticket :** Connects nodes Person and Ticket type.

**View :** Connects nodes Person and view

match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='Harry' and t.type='child' and v.dim='3D' and c.ctype='Gold' CREATE

(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;

match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='Priya' and t.type='adult' and v.dim='2D' and c.ctype='Diamond' CREATE

(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;

match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='Satish' and t.type='senior' and v.dim='3D' and c.ctype='Platinum' CREATE

(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;

match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='George' and t.type='adult' and v.dim='2D' and c.ctype='Default' CREATE

(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;

match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='Padma' and t.type='senior' and v.dim='4D' and c.ctype='Gold' CREATE

(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;

match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='Usha' and t.type='senior' and v.dim='2D' and c.ctype='Default' CREATE

(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;

match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='Fred' and t.type='adult' and v.dim='3D' and c.ctype='Silver' CREATE

(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;

match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='Ram' and t.type='child' and v.dim='2D' and c.ctype='Gold' CREATE

(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;

match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='William' and t.type='adult' and v.dim='2D' and c.ctype='Silver' CREATE

(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;

match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='Ron' and t.type='adult' and v.dim='4D' and c.ctype='Platinum' CREATE

(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;

match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='Neville' and t.type='adult' and v.dim='3D' and c.ctype='Gold' CREATE

(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;

match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='Bill' and t.type='senior' and v.dim='2D' and c.ctype='Diamond' CREATE

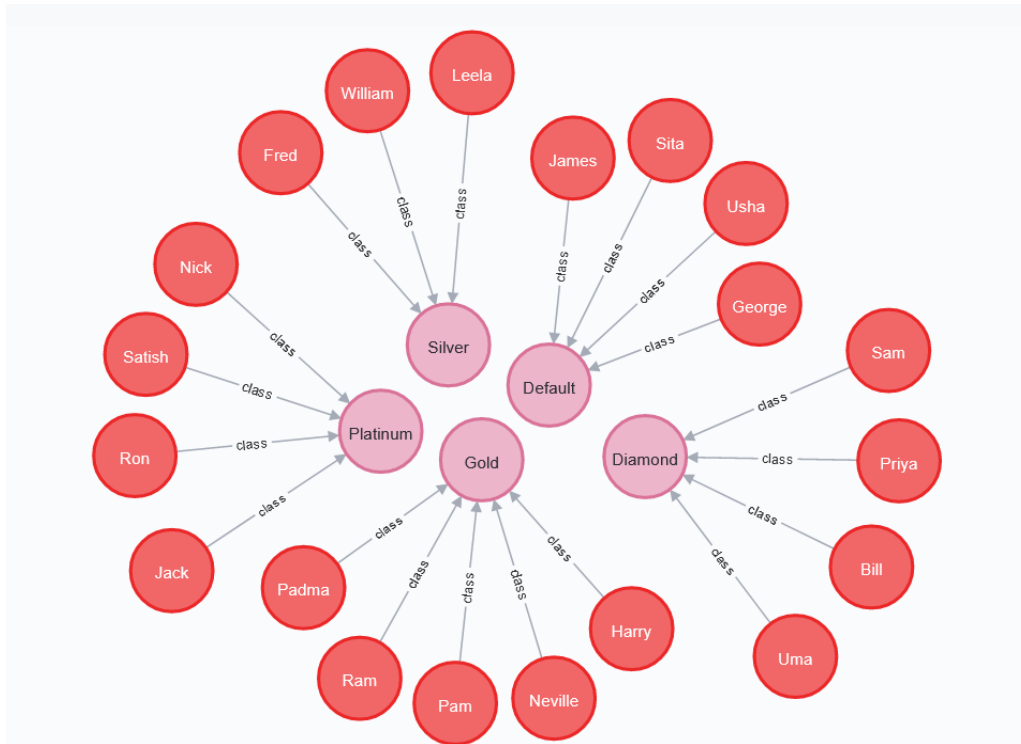
(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;

```

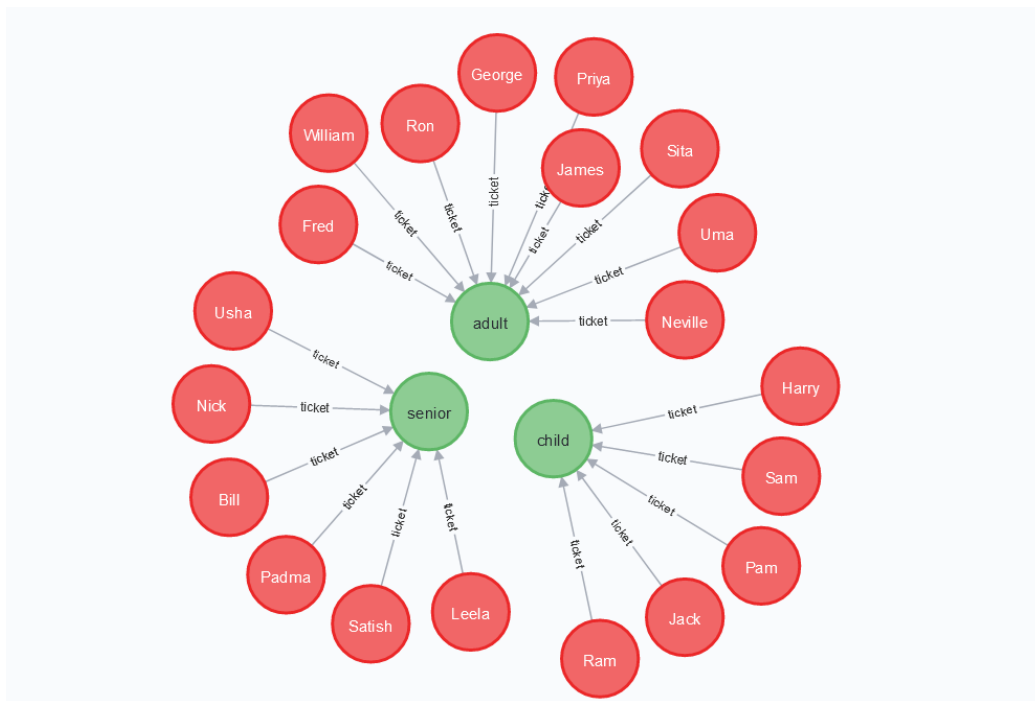
match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='Jack' and t.type='child' and
v.dim='4D' and c.ctype='Platinum' CREATE
(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;
match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='Sita' and t.type='adult' and
v.dim='2D' and c.ctype='Default' CREATE
(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;
match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='Leela' and t.type='senior' and
v.dim='2D' and c.ctype='Silver' CREATE
(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;
match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='Uma' and t.type='adult' and
v.dim='2D' and c.ctype='Diamond' CREATE
(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;
match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='Pam' and t.type='child' and
v.dim='4D' and c.ctype='Gold' CREATE
(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;
match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='Sam' and t.type='child' and
v.dim='3D' and c.ctype='Diamond' CREATE
(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;
match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='Nick' and t.type='senior' and
v.dim='3D' and c.ctype='Platinum' CREATE
(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;
match (p:Person),(t:Ticket),(v:View),(c:Class) where p.pname='James' and t.type='adult' and
v.dim='3D' and c.ctype='Default' CREATE
(p)-[pt:ticket]->(t), (p)-[pc:class]->(c), (p)-[pv:view]->(v) return p,t,v,c;

```

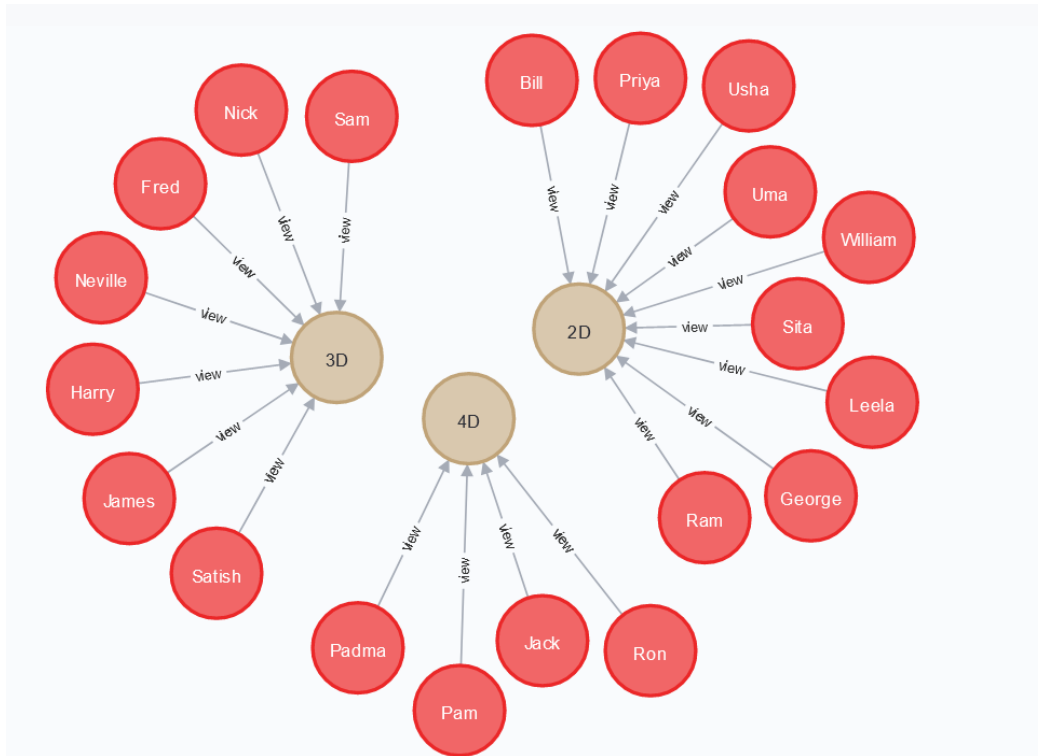
## Class



## Ticket



## View



## Queries :

### 1. Calculating amount to be paid by the Person

```
neo4j$ match (p:Person)-[:ticket]→(t:Ticket),(p:Person)-[:class]→  
      (c:Class) return p.pname as Name, (p.qty*  
      (t.price+c.premium))as Amount;
```

"Name"	"Amount"
"James"	400
"Sita"	1000
"Usha"	1500
"George"	400
"Leela"	200
"William"	250
"Fred"	500
"Pam"	720
"Neville"	900
"Ram"	540
"Padma"	500
"Harry"	360
"Nick"	2450
"Jack"	560
"Ron"	2400
"Satish"	700
"Sam"	1650
"Uma"	450
"Bill"	1200

## 2. Calculating the total income for all the theatres

```
neo4j$ match (t:Theatres)←[:at]-(m:Movie),(p:Person)-[:watch]→
(m:Movie),(p:Person)-[:class]→(c:Class),(p:Person)-
[:ticket]→(T:Ticket) return t.name as Theatre_Name
,sum(p.qty*(T.price+c.premium)) as Total_Income;
```

```
neo4j$ match (t:Theatres)←[:at]-(m:Movie),(p:Person)-[:wa...
```

Table

Text

Code

"Theatre_Name"	"Total_Income"
"Act"	1480
"Gopalan"	4150
"INOX"	8060
"PVR"	9450
"Discover"	2780
"Arts"	4350
"Orion"	3500
"Wonders"	3060
"Cam"	2680
"Lights"	4640

## 3. Displaying the number of people watching movies in a particular genre .

```
neo4j$ Match (p:Person) -[:watch]→(m:Movie) return m.genre as
genre,sum(p.qty) as No_of_ppl;
```

```
neo4j$ Match (p:Person) -[:watch]→(m:Movie) return m.genr...
```

Table

Text

Code

"genre"	"No_of_ppl"
"Fantasy"	30
"Action"	16
"Comedy"	8
"Scifi"	14

4. Calculating the total amount for a specific movie.

```
1 match(p:Person)-[:watch]→(m:Movie{title:'Matrices'}),(p:Person)-
[:ticket]→(t:Ticket),(p:Person)-[:class]→(c:Class)
2 return m.title as Movie , sum(p.qty*(t.price+c.premium)) as
amountformovie;
```

neo4j\$ match(p:Person)-[:watch]→(m:Movie{title:'Matrices'}),(p...

	Movie	amountformovie
1	"Matrices"	560

5. Displaying the number of people watching a movie of specified genre in a particular view with the movie name .

```
neo4j$ match (p:Person)-[:watch]→(m:Movie{genre:'Fantasy'}),
(p:Person)-[:view]→(v:View) return m.title as
Movie_title,v.dim as View, sum(p.qty) as No_of_ppl ;
```

neo4j\$ match (p:Person)-[:watch]→(m:Movie{genre:'Fantasy'...

"Movie_title"	"View"	"No_of_ppl"
"HP"	"2D"	8
"HP"	"3D"	9
"Mode"	"2D"	10
"Kingmen"	"3D"	2
"Neon"	"2D"	1

**Link for database :**

[https://9a5b36ab157460fd1e8d583f8ba8faa1.neo4jsandbox.com/browser/?token=pwfetch:9a5b36ab157460fd1e8d583f8ba8faa1:eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCIsImtpZCI6IiFUbENPRVV4UmtJNFJE TkROakpETXpBME5EZzBRElV3UWpNek9UVTVNRF4TIRKRk56STJOZyJ9.eyJpc3MiOiJodHRwczovL2xvZ2luLm5lbzRqLmNvbS8iLCJzdWUiOiJnb29nbGUtb2F1dGgyfDEwNTUwMDgxMzc2ODkzODY4MDkxMiIsImF1ZCI6WyJuZW80ajovL2FjY291bnRpbmZvLyIsImh0dHBzOi8vbmVvNGotc3luYy5hdXR0MC5jb20vdXNlcmluZm8iXSwiaWF0IjoxNjM2OTc4MDE1LCJleHAiOiJlE2MzcwNjQ0MTUsImF6cCI6IkkR4aG1pRjhUQ2V6bk3WG9pMDhVeVITY0xHWm5rNGtliiwic2NvcGUiOiJvcGVuaWQgcHJvZmlsZSBlbWVpbCBYZWVfOmFjY291bnQtaW5mbyB3cmI0ZTphY2NvdW50LWluZm8ifQ.JQvWRYGDCzoceYNO4rylph\\_7vyqIfqBqx6DAG\\_pSABXHgUiKlc41HTLSIK3h-jpY5jEzRhUwZkkda-5vEEITQ3J1WSdDva5aEEw2koZJS2tGKExyDE2\\_5x3poRCTMpih4R2Ef5QnwwUmvZJiXEYggPob61BRoXobMOKItmTPl9ja\\_cVAnbnfmAJKBwQKNQQv7SV26ioAdZlix3t67f5mRHtS9uKwUdsNRGLjOBYvJHPDitoB7gESVarVQtHIQdbEm2bwHU6AoekrqO3q-P-aHmL5sSLfePsNXf0bm\\_6jWKGi7hwcsv8g2EEQ6Gyr4k55hBIMD-Yj98LFDzEGMGuBXg&\\_ga=2.110709382.2065575380.1636779466-1370248518.1631345239&\\_gac=1.252882683.1636779467.CjwKCAiA1aiMBhAUEiwACw25MQQH2E9FWv-jflx-riqsLZKmt0\\_d-3kl7HGR7w87-RlZD4HlAHLJLRoC-qkQAvD\\_BwE](https://9a5b36ab157460fd1e8d583f8ba8faa1.neo4jsandbox.com/browser/?token=pwfetch:9a5b36ab157460fd1e8d583f8ba8faa1:eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCIsImtpZCI6IiFUbENPRVV4UmtJNFJE TkROakpETXpBME5EZzBRElV3UWpNek9UVTVNRF4TIRKRk56STJOZyJ9.eyJpc3MiOiJodHRwczovL2xvZ2luLm5lbzRqLmNvbS8iLCJzdWUiOiJnb29nbGUtb2F1dGgyfDEwNTUwMDgxMzc2ODkzODY4MDkxMiIsImF1ZCI6WyJuZW80ajovL2FjY291bnRpbmZvLyIsImh0dHBzOi8vbmVvNGotc3luYy5hdXR0MC5jb20vdXNlcmluZm8iXSwiaWF0IjoxNjM2OTc4MDE1LCJleHAiOiJlE2MzcwNjQ0MTUsImF6cCI6IkkR4aG1pRjhUQ2V6bk3WG9pMDhVeVITY0xHWm5rNGtliiwic2NvcGUiOiJvcGVuaWQgcHJvZmlsZSBlbWVpbCBYZWVfOmFjY291bnQtaW5mbyB3cmI0ZTphY2NvdW50LWluZm8ifQ.JQvWRYGDCzoceYNO4rylph_7vyqIfqBqx6DAG_pSABXHgUiKlc41HTLSIK3h-jpY5jEzRhUwZkkda-5vEEITQ3J1WSdDva5aEEw2koZJS2tGKExyDE2_5x3poRCTMpih4R2Ef5QnwwUmvZJiXEYggPob61BRoXobMOKItmTPl9ja_cVAnbnfmAJKBwQKNQQv7SV26ioAdZlix3t67f5mRHtS9uKwUdsNRGLjOBYvJHPDitoB7gESVarVQtHIQdbEm2bwHU6AoekrqO3q-P-aHmL5sSLfePsNXf0bm_6jWKGi7hwcsv8g2EEQ6Gyr4k55hBIMD-Yj98LFDzEGMGuBXg&_ga=2.110709382.2065575380.1636779466-1370248518.1631345239&_gac=1.252882683.1636779467.CjwKCAiA1aiMBhAUEiwACw25MQQH2E9FWv-jflx-riqsLZKmt0_d-3kl7HGR7w87-RlZD4HlAHLJLRoC-qkQAvD_BwE)