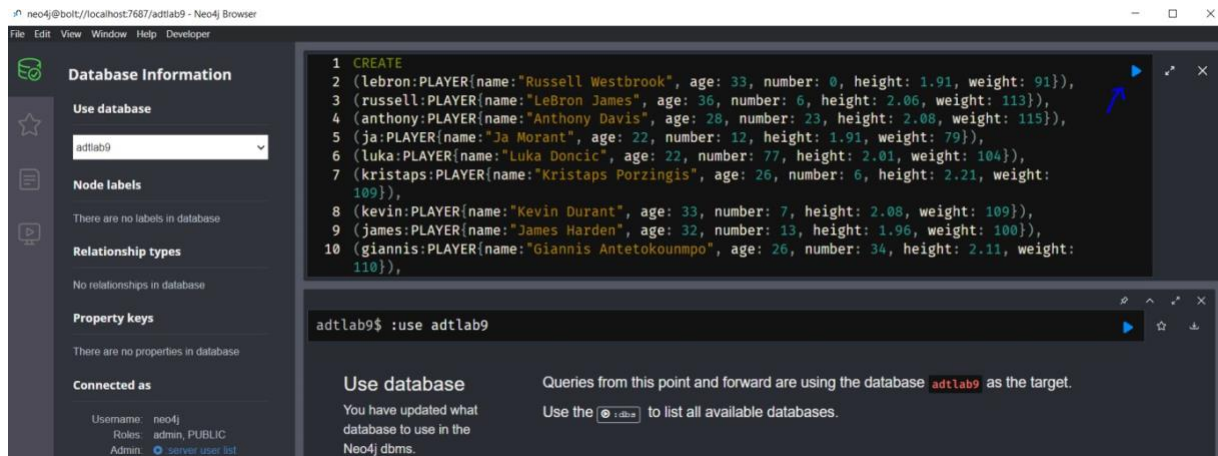


1. Copy the contents of basketball.txt and paste in the cell. Then run it



2. To see if the data has been loaded correctly run the below query

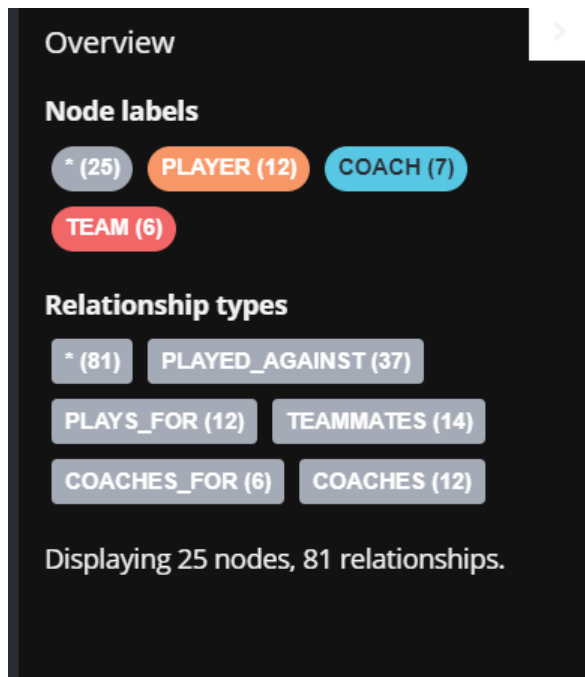
Example Queries-

MATCH (n) RETURN n

Expected output-



If you see to the right, it shows all the newly created nodes and their relationship types.

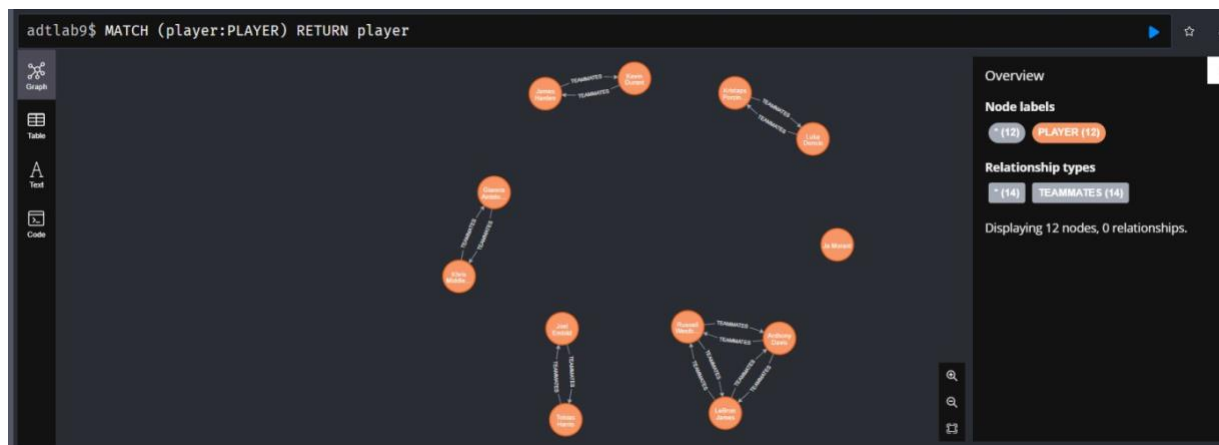


Here we have 12 node of players, 7 node of coach and 6 node of team. In total we have 25 nodes and 81 relationships

Query-

MATCH (player:PLAYER) RETURN player

Expected output-



Query-

MATCH (player:PLAYER) RETURN player.name, player.height

Expected output-

```
adtlab9$ MATCH (player:PLAYER) RETURN player.name, player.height
```

	player.name	player.height
1	"Russell Westbrook"	1.91
2	"LeBron James"	2.06
3	"Anthony Davis"	2.08
4	"Ja Morant"	1.91
5	"Luka Doncic"	2.01
6	"Kristaps Porzingis"	2.21
7		

Started streaming 12 records after 1 ms and completed after 3 ms.

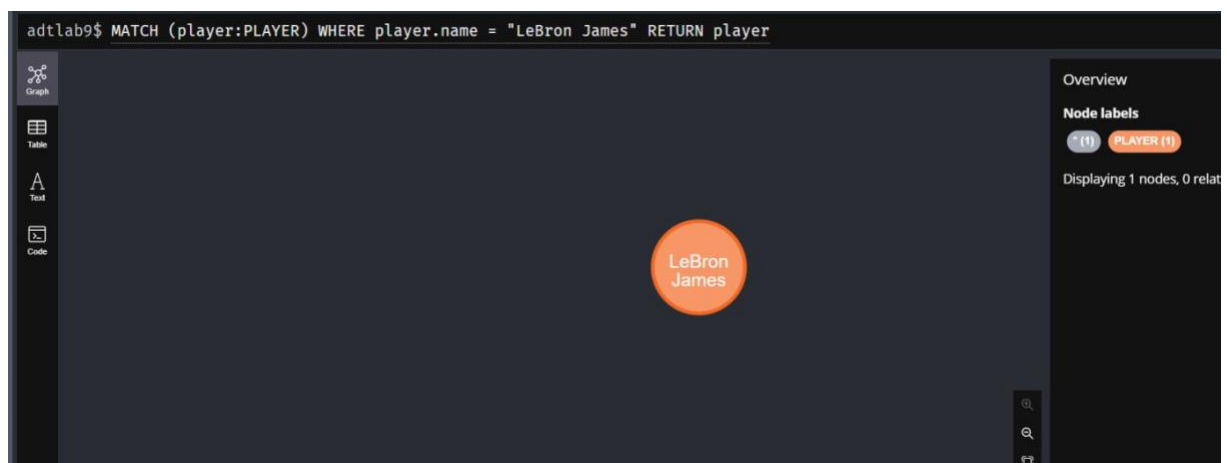
Query-

MATCH (player:PLAYER)

WHERE player.name = "LeBron James"

RETURN player

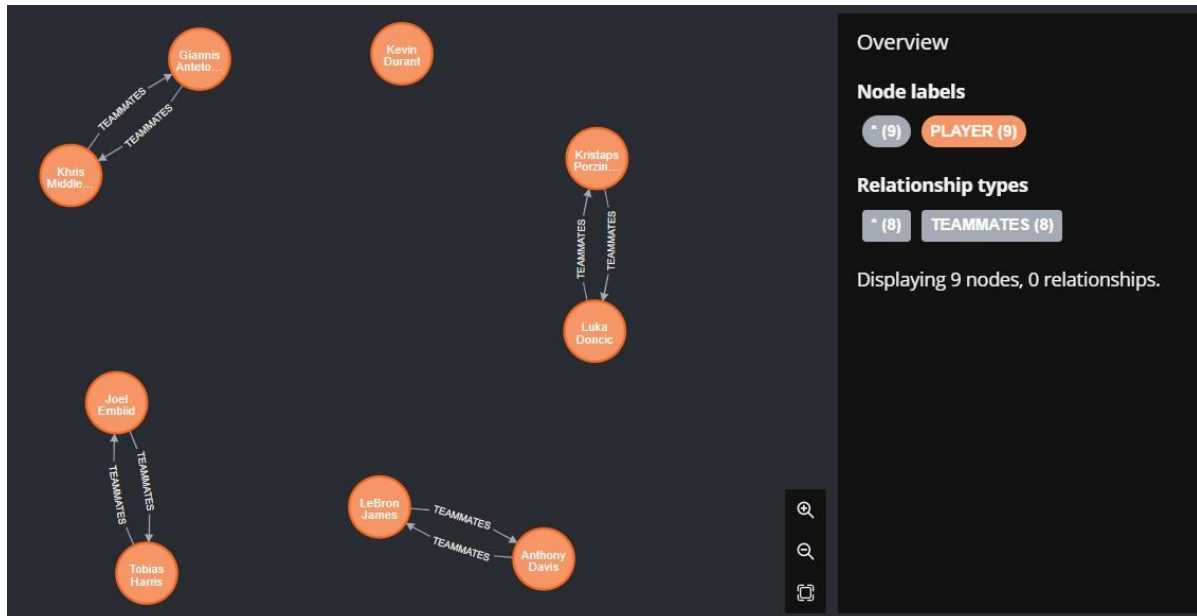
Expected output-



Question 1

Player where height is greater than or equal to 2

Expected output-



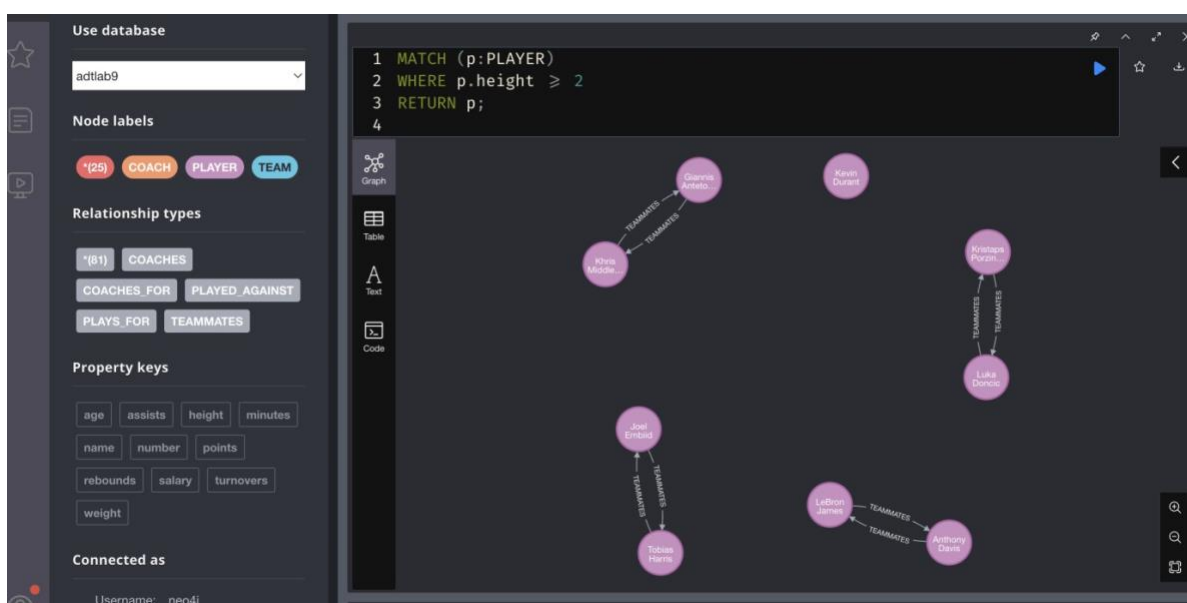
Your query

```
MATCH (p:PLAYER)
```

```
WHERE p.height >= 2
```

```
RETURN p;
```

Your Output

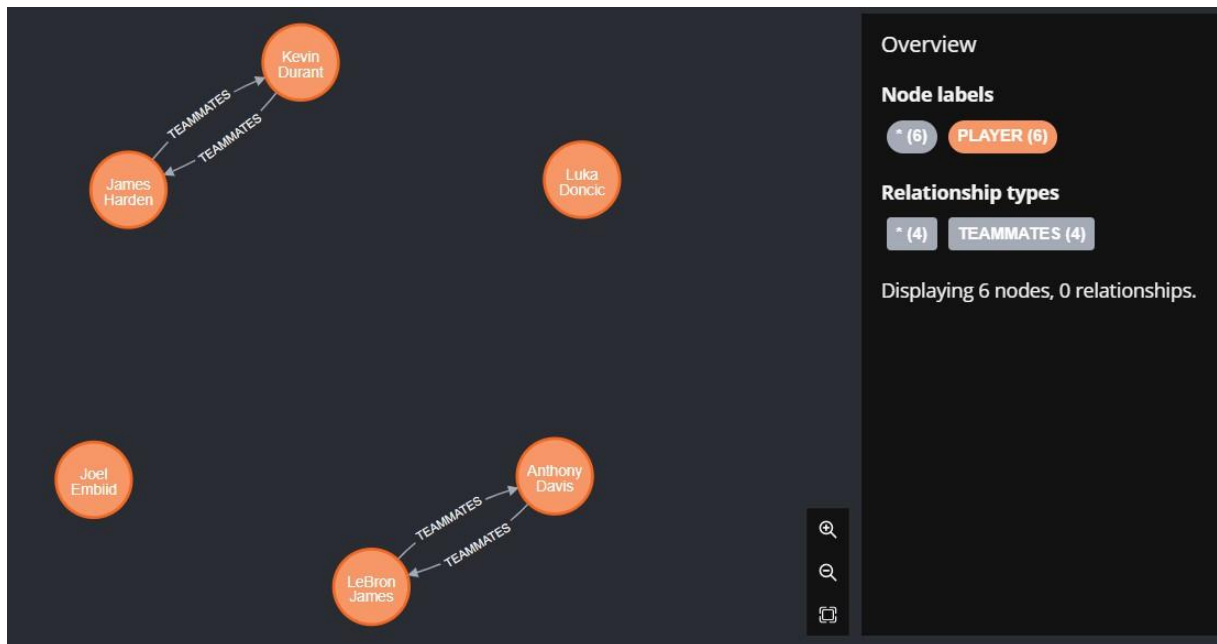


Question 2

Players with a BMI larger than 25

$$\text{BMI} = \text{Weight} / (\text{Height})^2$$

Expected output-



Your query

```
MATCH (p:PLAYER)
```

```
WHERE (p.weight / (p.height * p.height)) > 25
```

```
RETURN p;
```

Your Output

Use database

adtlab9

Node labels

(25)

COACH

PLAYER

TEAM

Relationship types

(81)

COACHES

COACHES_FOR

PLAYED_AGAINST

PLAYS_FOR

TEAMMATES

Property keys

age

assists

height

minutes

name

number

points

rebounds

salary

turnovers

weight

Connected as

Username: neo4j

```

1 MATCH (p:PLAYER)
2 WHERE (p.weight / (p.height * p.height)) > 25
3 RETURN p;

```

Graph

Table

Text

Code

Question 3

Select all Players and Team where Team Name is 'LA Lakers'

Expected output-

Overview

Node labels

(4)

PLAYER (3)

TEAM (1)

Relationship types

(9)

PLAYS_FOR (3)

TEAMMATES (6)

Displaying 4 nodes, 0 relationships.

Your query

```

MATCH (p:PLAYER)-[:PLAYS_FOR]->(t:TEAM{name: 'LA Lakers'})
RETURN p, t;

```

Your Output

Use database

adtlab9

Node labels

(25)

COACH

PLAYER

TEAM

Relationship types

(81)

COACHES

COACHES_FOR

PLAYED_AGAINST

PLAYS_FOR

TEAMMATES

Property keys

age

assists

height

minutes

name

number

points

rebounds

salary

turnovers

weight

Connected as

Username: neo4j

```

1 MATCH (p:PLAYER)-[:PLAYS_FOR]->(t:TEAM{name: 'LA Lakers'})
2 RETURN p, t;
3

```

Question 4

Get players and number of games played

Expected output-

	player.name	COUNT(gamePlayed)
1	"Tobias Harris"	3
2	"Ja Morant"	3
3	"Kevin Durant"	3
4	"James Harden"	3
5	"Joel Embiid"	3
6	"Anthony Davis"	4
7		

Started streaming 12 records after 14 ms and completed after 16 ms

Your query

MATCH (p:PLAYER)-[r:PLAYED_AGAINST]->(t:TEAM) return p.name,count(r) as gamePlayed

Your Output

Node labels

(25) COACH PLAYER TEAM

Relationship types

(81) COACHES

COACHES FOR PLAYED_AGAINST

PLAYS_FOR TEAMMATES

Property keys

age assists height minutes

name number points

rebounds salary turnovers

weight

Connected as

Username: neo4j

Roles: admin, PUBLIC

Admin: :server user list

:server user add

Disconnect: :server disconnect

```
adtlab9$ MATCH (p:PLAYER)-[r:PLAYED_AGAINST]-(t:TEAM) return
p.name,count(r) as gamePlayed
```

	p.name	gamePlayed
1	"Tobias Harris"	3
2	"Ja Morant"	3
3	"Kevin Durant"	3
4	"James Harden"	3
5	"Joel Embiid"	3
6	"Anthony Davis"	4
7		

Started streaming 12 records in less than 1 ms and completed after 2 ms.

Question 5

Get all players that make more than 35M

Expected output-

```

graph TD
    KD((Kevin Durant))
    LD((Luka Doncic))
    GA((Giannis Antetokounmpo))
    KM((Khris Middleton))
    RW((Russell Westbrook))
    AD((Anthony Davis))
    GA -- TEAMMATES --> KM
    KM -- TEAMMATES --> GA
    AD -- TEAMMATES --> RW
    RW -- TEAMMATES --> AD
  
```

Overview

Node labels

(6) PLAYER (6)

Relationship types

(4) TEAMMATES (4)

Displaying 6 nodes, 0 relationships.

Your query

MATCH (p:PLAYER)-[r:PLAYS_FOR]->(t:TEAM)

WHERE r.salary > 35000000

RETURN p

Your Output

The screenshot displays the Neo4j Cypher Query Editor interface. The main query is:

```
1 MATCH (p:PLAYER)-[r:PLAYS_FOR]-(t:TEAM)
2 WHERE r.salary > 35000000
3 RETURN p
```

The results are shown in three views: Graph, Table, and Code. The Graph view displays a network of players and their relationships. The Table view shows the results of the query. The Code view shows the query text.

Relationship types: COACHES, COACHES_FOR, PLAYED_AGAINST, PLAYS_FOR, TEAMMATES.

Property keys: age, assists, height, minutes, name, number, points, rebounds, salary, turnovers, weight.

Connected as: Username: neo4j, Roles: admin, PUBLIC, Admin: :server user list, :server user add, :server disconnect.

DBMS:

Graph View Results:

- Kevin Durant
- Luka Doncic
- Giannis Antetokounmpo
- Khrys Middleton
- Anthony Davis
- Russell Westbrook

Table View Results:

Player
Kevin Durant
Luka Doncic
Giannis Antetokounmpo
Khrys Middleton
Anthony Davis
Russell Westbrook