**Neo4j Queries**

**1.Query to create database with player, coach,team details along with their relationships.**

CREATE

(russell:PLAYER{name:"Russell Westbrook", age: 33, number: 0, height: 1.91, weight: 91}),

(lebron:PLAYER{name:"LeBron James", age: 36, number: 6, height: 2.06, weight: 113}),

(anthony:PLAYER{name:"Anthony Davis", age: 28, number: 23, height: 2.08, weight: 115}),

(ja:PLAYER{name:"Ja Morant", age: 22, number: 12, height: 1.91, weight: 79}),

(frank:COACH{name: "Frank Vogel"}),

(taylor:COACH{name: "Taylor Jenkins"}),

(lakers:TEAM{name:"LA Lakers"}),

(mavericks:TEAM{name:"Dallas Mavericks"}),

(lebron)-[:TEAMMATES]-> (russell),

(lebron)<-[:TEAMMATES]- (russell),

(ja)-[:TEAMMATES]-> (anthony),

(ja)<-[:TEAMMATES]- (anthony),

(frank)-[:COACHES]->(lebron),

(frank)-[:COACHES]->(russell),

(taylor)-[:COACHES]->(ja),

(taylor)-[:COACHES]->(anthony),

(lebron)-[:PLAYS\_FOR {salary: 40000000}]-> (lakers),

(russell)-[:PLAYS\_FOR {salary: 33000000}]-> (lakers),

(anthony)-[:PLAYS\_FOR {salary: 38000000}]-> (mavericks),

(ja)-[:PLAYS\_FOR {salary: 8000000}]-> (mavericks),

(frank)-[:COACHES\_FOR]->(lakers),

(taylor)-[:COACHES\_FOR]->(mavericks),

(lebron)-[:PLAYED\_AGAINST {minutes: 38, points: 32, assists: 6, rebounds: 6, turnovers: 2}]-> (mavericks),

(russell)-[:PLAYED\_AGAINST {minutes: 29, points: 16, assists: 12, rebounds: 11, turnovers: 16}]-> (mavericks),

(anthony)-[:PLAYED\_AGAINST {minutes: 36, points: 27, assists: 2, rebounds: 8, turnovers: 1}]-> (lakers),

(ja)-[:PLAYED\_AGAINST {minutes: 43, points: 42, assists: 7, rebounds: 8, turnovers: 4}]-> (lakers);

**2. Query to fetch the whole graph model with all the nodes and relationships**

MATCH (n) RETURN n

**3.** **Query to fetch only the player nodes**

MATCH(player:PLAYER) RETURN player

**4. Query to fetch only the player names**

MATCH(player:PLAYER) RETURN player.name

**5. Query to fetch only the player names and their height values**

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

**6.** **Query to fetch only the player names along with their height values and rename the column headers accordingly.**

MATCH(player:PLAYER) RETURN player.name AS NAME ,player.height as HEIGHT

**7.** **Query to fetch a specific player node using name attribute.**

MATCH(player:PLAYER)

WHERE player.name= 'Anthony Davis'

RETURN player

**8.** **Query to fetch a specific player node using name attribute. (Alternate method)**

MATCH(player:PLAYER {name:"Anthony Davis"})

RETURN player

**9. Query to fetch all the player nodes except a specific player node.**

MATCH(player:PLAYER)

WHERE player.name<>'Anthony Davis'

RETURN player

**10.** **Query to fetch all the player nodes whose height is greater than the specified value.**

MATCH(player:PLAYER)

WHERE player.height >=2

RETURN player

**11.** **Query to fetch all the player nodes whose BMI is greater than the specified value.**

MATCH(player:PLAYER)

WHERE (player.weight/(player.height\*player.height))>25

RETURN player

**12.** **Query to fetch all the player nodes whose weight is greater than 100 and height is greater than 2. (Multiple conditions)**

MATCH(player:PLAYER)

WHERE player.weight>=100 AND player.height>2

RETURN player

**13.** **Query to fetch all the player nodes whose weight is greater than 100 or height is greater than 2. (Multiple conditions)**

MATCH(player:PLAYER)

WHERE player.weight>=100 OR player.height>2

RETURN player

**14.** **Query to fetch all the player nodes who do not satisfy the condition such as weight greater than 100 and height greater than 2 using NOT keyword.**

MATCH(player:PLAYER)

WHERE NOT player.weight>=100 AND player.height<2

RETURN player

**15. Query to fetch all the player nodes who do not satisfy the condition such as weight greater than 100 and height greater than 2 using NOT keyword.** **Display only the specified number of nodes using LIMIT keyword.**

MATCH(player:PLAYER)

WHERE NOT player.weight>=100 AND player.height<2

RETURN player

LIMIT 1

**16. Query to fetch all the player nodes who do not satisfy the condition such as weight greater than 100 and height greater than 2 using NOT keyword.** **Display only the specified number of nodes using LIMIT keyword by skipping the first two nodes using SKIP keyword.**

MATCH(player:PLAYER)

RETURN player

SKIP 2

LIMIT 2

**17. Query to display the players based on height in descending order.**

MATCH(player:PLAYER)

RETURN player

ORDER BY player.height DESC

**18. Query to** **display the players based on height in ascending order.**

MATCH(player:PLAYER)

RETURN player

ORDER BY player.height ASC

**19. Query to display all PLAYER and COACH nodes.**

MATCH(player:PLAYER), (coach:COACH)

RETURN player, coach

**20. Query to display the players who play for the team “LA Lakers”**

MATCH (player:PLAYER)-[:PLAYS\_FOR]-> (team:TEAM)

WHERE team.name="LA Lakers"

RETURN player,team

**21. Query to display the players who play for the team “LA Lakers” or "Dallas Mavericks"**

MATCH (player:PLAYER)-[:PLAYS\_FOR]-> (team:TEAM)

WHERE team.name="LA Lakers" or team.name= " Dallas Mavericks "

RETURN player,team

**22.** **Query to display the players whose salary is greater than 35000000.**

MATCH (player:PLAYER)-[contract:PLAYS\_FOR]-> (team:TEAM)

WHERE contract.salary>35000000

RETURN player

**23. Query to display the teammates of player named “LeBron James”**

MATCH (player:PLAYER{name:"LeBron James"})-[:TEAMMATES]-> (teammate:PLAYER)

RETURN teammate

**24. Query to display the teammates of player “LeBron James” whose salary is greater than 20000000**

MATCH (player:PLAYER{name:"LeBron James"})-[:TEAMMATES]-> (teammate:PLAYER)

MATCH (teammate)-[contract:PLAYS\_FOR]->(team:TEAM)

WHERE contract.salary>=20000000

RETURN teammate

**25. Query to display the number of games played by each player**

MATCH (player:PLAYER) - [gamePlayed:PLAYED\_AGAINST] -> (team:TEAM)

RETURN player.name, COUNT(gamePlayed)

**26. Query to display the players in the descending order of the average points scored by each player**

MATCH (player:PLAYER) - [gamePlayed:PLAYED\_AGAINST] -> (team:TEAM)

RETURN player.name, AVG(gamePlayed.points) as TOP

ORDER BY TOP DESC

**27. Query to delete a specific player node**

MATCH (ja {name: "Ja Morant" })

DETACH DELETE ja

**28. Query to delete a specific relationship between two nodes**

MATCH (lakers {name: " LA Lakers " }) – [rel:PLAYS\_FOR] -> (:TEAM)

DELETE rel

**29. Query to delete all the nodes from the graph model**

MATCH (n)

DETACH DELETE n