

Lab_12

Ex_1

```
CREATE (:Fighter {name: 'Khabib Nurmagomedov', weight: 155})
CREATE (:Fighter {name: 'Rafael Dos Anjos', weight: 155})
CREATE (:Fighter {name: 'Neil Magny', weight: 170})
CREATE (:Fighter {name: 'Jon Jones', weight: 205})
CREATE (:Fighter {name: 'Daniel Cormier', weight: 205})
CREATE (:Fighter {name: 'Michael Bisping', weight: 185})
CREATE (:Fighter {name: 'Matt Hamill', weight: 185})
CREATE (:Fighter {name: 'Brandon Vera', weight: 205})
CREATE (:Fighter {name: 'Frank Mir', weight: 230})
CREATE (:Fighter {name: 'Brock Lesnar', weight: 230})
CREATE (:Fighter {name: 'Kelvin Gastelum', weight: 185})
```

```
MATCH (khabib:Fighter {name: 'Khabib Nurmagomedov'}), (dosAnjos:Fighter {name: 'Rafael Dos Anjos'})
CREATE (khabib)-[:BEAT]->(dosAnjos);
```

```
MATCH (dosAnjos:Fighter {name: 'Rafael Dos Anjos'}), (magny:Fighter {name: 'Neil Magny'})
CREATE (dosAnjos)-[:BEAT]->(magny);
```

```
MATCH (jones:Fighter {name: 'Jon Jones'}), (cormier:Fighter {name: 'Daniel Cormier'})
CREATE (jones)-[:BEAT]->(cormier);
```

```
MATCH (bisping:Fighter {name: 'Michael Bisping'}), (hamill:Fighter {name: 'Matt Hamill'})
CREATE (bisping)-[:BEAT]->(hamill);
```

```
MATCH (jones:Fighter {name: 'Jon Jones'}), (vera:Fighter {name: 'Brandon Vera'})
CREATE (jones)-[:BEAT]->(vera);
```

```
MATCH (vera:Fighter {name: 'Brandon Vera'}), (mir:Fighter {name: 'Frank Mir'})
CREATE (vera)-[:BEAT]->(mir);
```

```
MATCH (mir:Fighter {name: 'Frank Mir'}), (lesnar:Fighter {name: 'Brock Lesnar'})
CREATE (mir)-[:BEAT]->(lesnar);
```

```
MATCH (magny:Fighter {name: 'Neil Magny'}), (gastelum:Fighter {name: 'Kelvin Gastelum'})
CREATE (magny)-[:BEAT]->(gastelum);
```

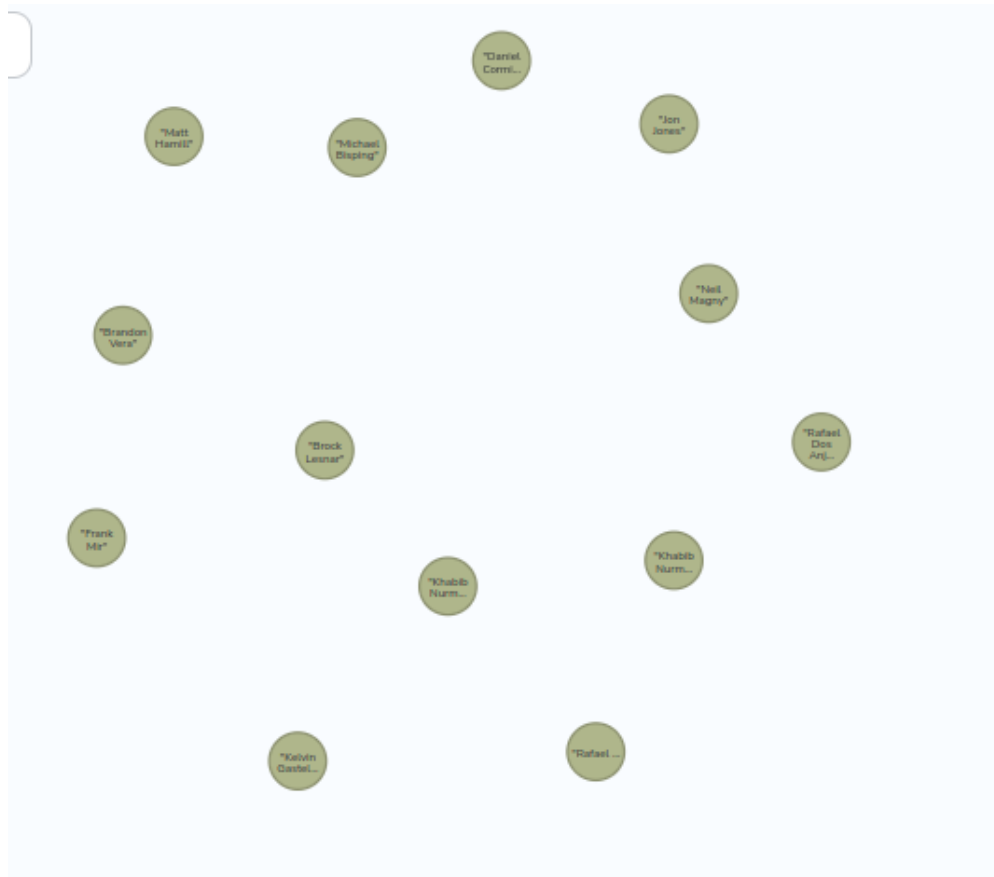
```
MATCH (gastelum:Fighter {name: 'Kelvin Gastelum'}), (bisping:Fighter {name: 'Michael Bisping'})
CREATE (gastelum)-[:BEAT]->(bisping);
```

```
MATCH (bisping:Fighter {name: 'Michael Bisping'}), (hamill:Fighter {name: 'Matt Hamill'})
CREATE (bisping)-[:BEAT]->(hamill);
```

```
MATCH (hamill:Fighter {name: 'Matt Hamill'}), (jones:Fighter {name: 'Jon Jones'})
CREATE (hamill)-[:BEAT]->(jones);
```

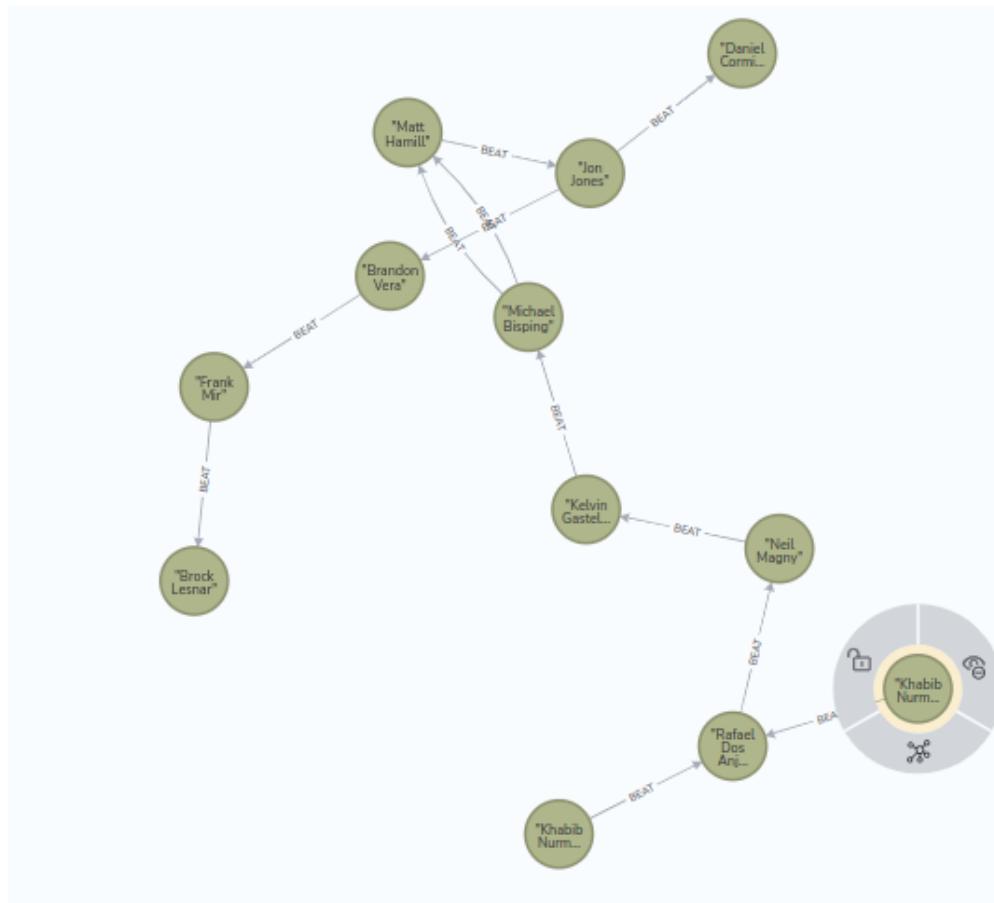
Result

```
MATCH (n:Fighter) RETURN n LIMIT 25;
```



Started streaming 13 records after 10ms and co

```
MATCH p=()-[:BEAT]->() RETURN p LIMIT 25;
```



Started streaming 12 records after 13ms and complete

Ex_2

1)

```

MATCH (f:Fighter)-[:BEAT]->()
WHERE f.weight IN [155, 170, 185]
RETURN f.weight, count(DISTINCT f) as fighters_count
  
```

f.weight	fighters_count
155	2
170	1
185	3

2)

```
MATCH (f:Fighter)-[:BEAT]->(f2:Fighter)<-[:BEAT]-(f:Fighter)
RETURN f.name, f2.name, count(*) as wins
```

f.name	num_fights
"Jon Jones"	2

3)

```
MATCH (f:Fighter)
OPTIONAL MATCH (f)-[b:BEAT]->(opponent)
WITH f, count(b) AS num_fights
ORDER BY num_fights DESC LIMIT 1
RETURN f.name, num_fights
```

f.weight	fighters_count
155	2
170	1
185	3

4)

```
MATCH (f:Fighter)
WHERE NOT (f)-[:BEAT]->(f)
OR NOT (f)-[:BEAT]->(f)
RETURN f.name, COUNT(*) as wins
```

f.weight	fighters_count
155	2
170	1
185	3