1, load_players()
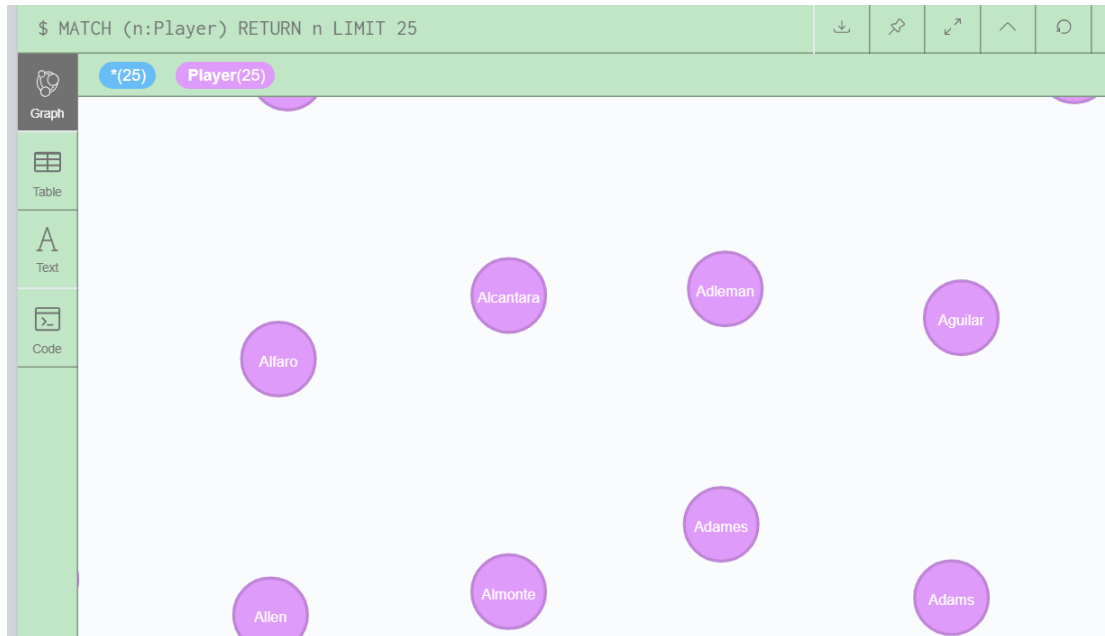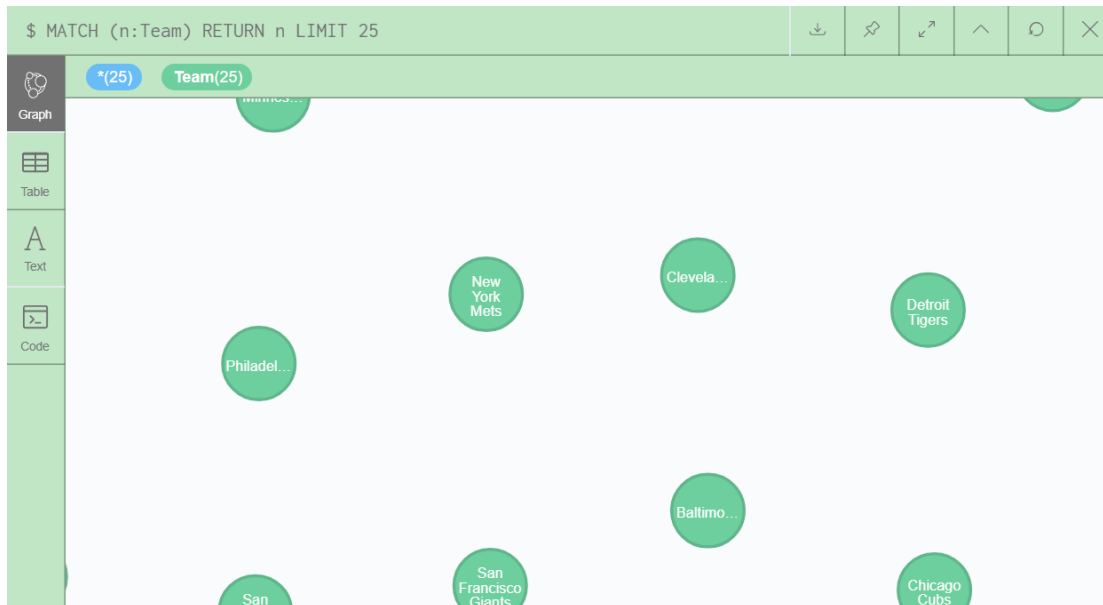
Created player = (_3444:Player {first_name: 'Bradley', last_name: 'Zimmer', player_id: 'zimmebr01'})
{'playerID': 'zimmebr01', 'nameLast': 'Zimmer', 'nameFirst': 'Bradley'}
Created player = (_3445:Player {first_name: 'Jordan', last_name: 'Zimmermann', player_id: 'zimmejo02'})
{'playerID': 'zimmejo02', 'nameLast': 'Zimmermann', 'nameFirst': 'Jordan'}
Created player = (_3446:Player {first_name: 'Ryan', last_name: 'Zimmerman', player_id: 'zimmery01'})
{'playerID': 'zimmery01', 'nameLast': 'Zimmerman', 'nameFirst': 'Ryan'}
Created player = (_3447:Player {first_name: 'Ben', last_name: 'Zobrist', player_id: 'zobribe01'})
{'playerID': 'zobribe01', 'nameLast': 'Zobrist', 'nameFirst': 'Ben'}
Created player = (_3448:Player {first_name: 'Mike', last_name: 'Zunino', player_id: 'zuninmi01'})
{'playerID': 'zuninmi01', 'nameLast': 'Zunino', 'nameFirst': 'Mike'}
Created player = (_3449:Player {first_name: 'Tony', last_name: 'Zych', player_id: 'zychto01'})
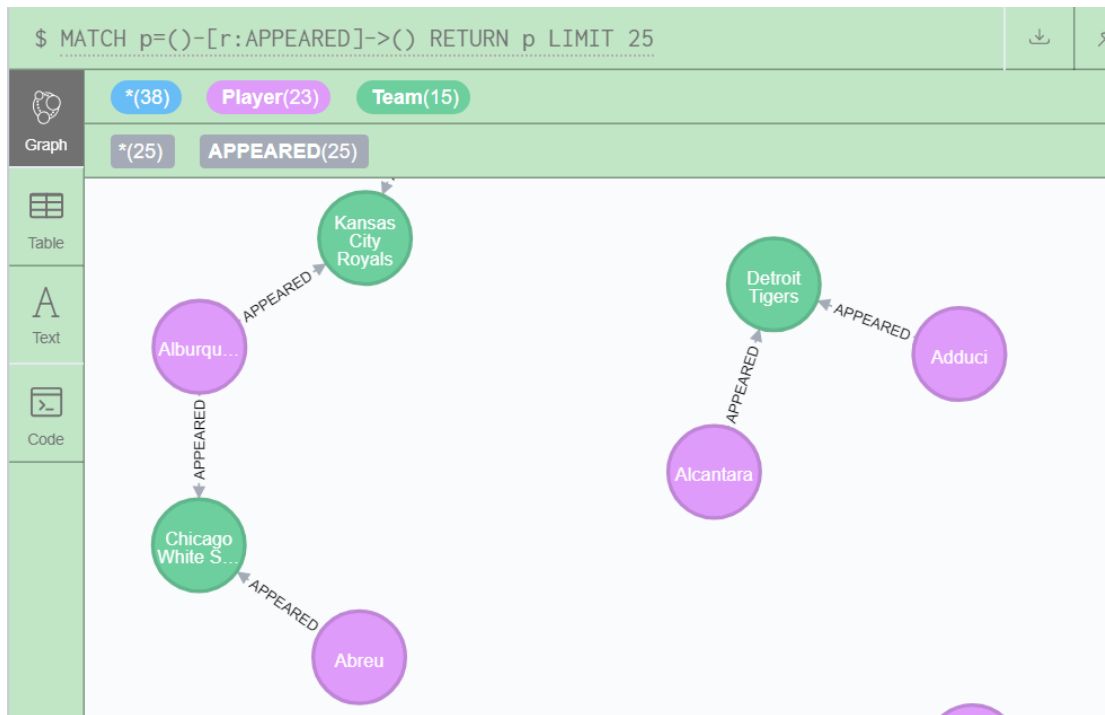{'playerID': 'zychto01', 'nameLast': 'Zych', 'nameFirst': 'Tony'}
Loaded 1358 records.

2, load_teams()

{'teamid': 'NYN', 'name': 'New York Mets'}
Created team = (_3483:Team {team_id: 'OAK', team_name: 'Oakland Athletics'})
{'teamid': 'OAK', 'name': 'Oakland Athletics'}
Created team = (_3484:Team {team_id: 'PHI', team_name: 'Philadelphia Phillies'})
{'teamid': 'PHI', 'name': 'Philadelphia Phillies'}
Created team = (_3485:Team {team_id: 'PIT', team_name: 'Pittsburgh Pirates'})
{'teamid': 'PIT', 'name': 'Pittsburgh Pirates'}
Created team = (_3486:Team {team_id: 'SDN', team_name: 'San Diego Padres'})
{'teamid': 'SDN', 'name': 'San Diego Padres'}
Created team = (_3487:Team {team_id: 'SEA', team_name: 'Seattle Mariners'})
{'teamid': 'SEA', 'name': 'Seattle Mariners'}
Created team = (_3488:Team {team_id: 'SFN', team_name: 'San Francisco Giants'})
{'teamid': 'SFN', 'name': 'San Francisco Giants'}
Created team = (_3489:Team {team_id: 'SLN', team_name: 'St. Louis Cardinals'})
{'teamid': 'SLN', 'name': 'St. Louis Cardinals'}
Created team = (_3490:Team {team_id: 'TBA', team_name: 'Tampa Bay Rays'})
{'teamid': 'TBA', 'name': 'Tampa Bay Rays'}
Created team = (_3491:Team {team_id: 'TEX', team_name: 'Texas Rangers'})
{'teamid': 'TEX', 'name': 'Texas Rangers'}
Created team = (_3492:Team {team_id: 'TOR', team_name: 'Toronto Blue Jays'})
{'teamid': 'TOR', 'name': 'Toronto Blue Jays'}
Created team = (_3493:Team {team_id: 'WAS', team_name: 'Washington Nationals'})
{'teamid': 'WAS', 'name': 'Washington Nationals'}
Loaded 30 records.

*(25)   Team(25)

New York Mets

Clevela...

Detroit Tigers

Philadel...

Baltimo...
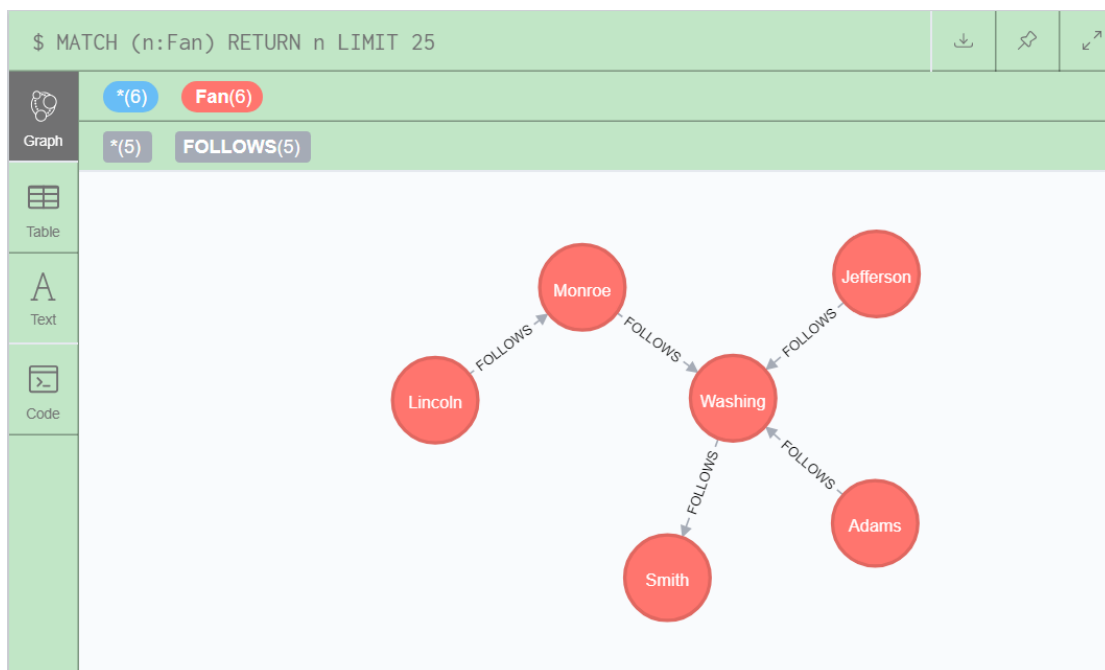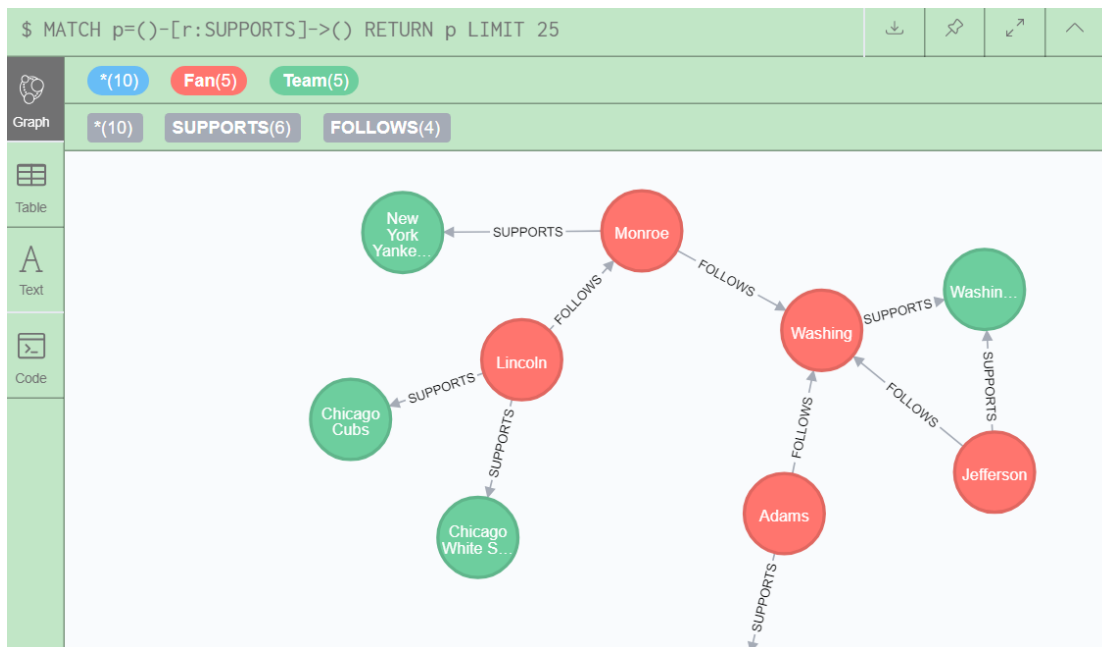
San Francisco Giants

San

Chicago Cubs

3, load_apperances

```
Created appearances = (_3442)-[:APPEARED {}]->(_3469)
{'playerid': 'zastrro01', 'teamid': 'CHN', 'games': '4'}
Created appearances = (_3443)-[:APPEARED {}]->(_3478)
{'playerid': 'zieglbr01', 'teamid': 'MIA', 'games': '53'}
Created appearances = (_3444)-[:APPEARED {}]->(_3471)
{'playerid': 'zimmebr01', 'teamid': 'CLE', 'games': '101'}
Created appearances = (_3445)-[:APPEARED {}]->(_3473)
{'playerid': 'zimmejo02', 'teamid': 'DET', 'games': '29'}
Created appearances = (_3446)-[:APPEARED {}]->(_3493)
{'playerid': 'zimmery01', 'teamid': 'WAS', 'games': '144'}
Created appearances = (_3447)-[:APPEARED {}]->(_3469)
{'playerid': 'zobribe01', 'teamid': 'CHN', 'games': '128'}
Created appearances = (_3448)-[:APPEARED {}]->(_3487)
{'playerid': 'zuninmi01', 'teamid': 'SEA', 'games': '124'}
Created appearances = (_3449)-[:APPEARED {}]->(_3487)
{'playerid': 'zychto01', 'teamid': 'SEA', 'games': '45'}
Loaded 1494 records
```
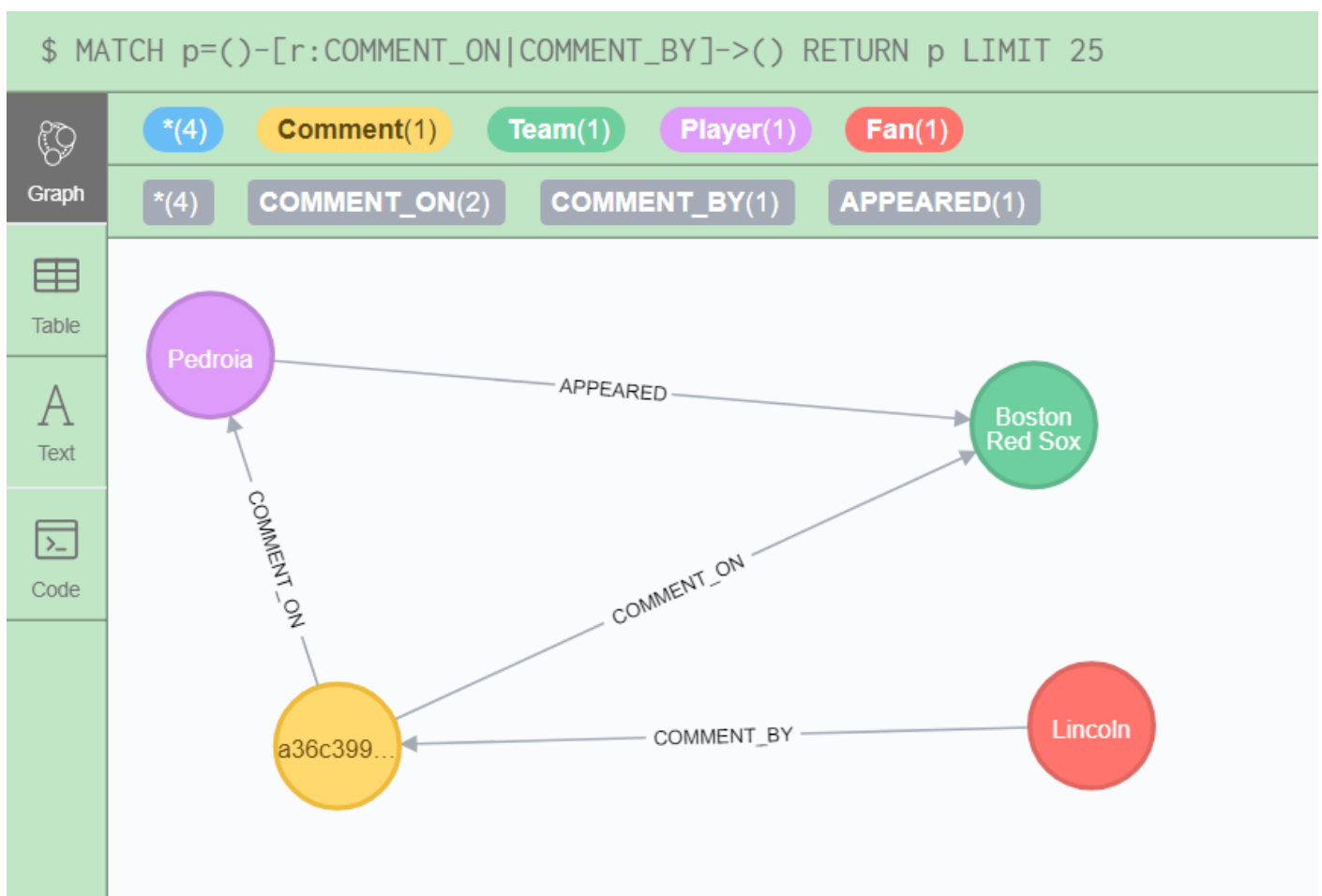
```
$ MATCH p=()-[r:APPEARED]->() RETURN p LIMIT 25
```

*(38)   Player(23)   Team(15)

*(25)   APPEARED(25)

4, load_follows_fans() and create_supports()


```
$ MATCH (n:Fan) RETURN n LIMIT 25
```

*(6)   Fan(6)

*(5)   FOLLOWS(5)

```
$ MATCH p=()-[r:SUPPORTS]->() RETURN p LIMIT 25
```
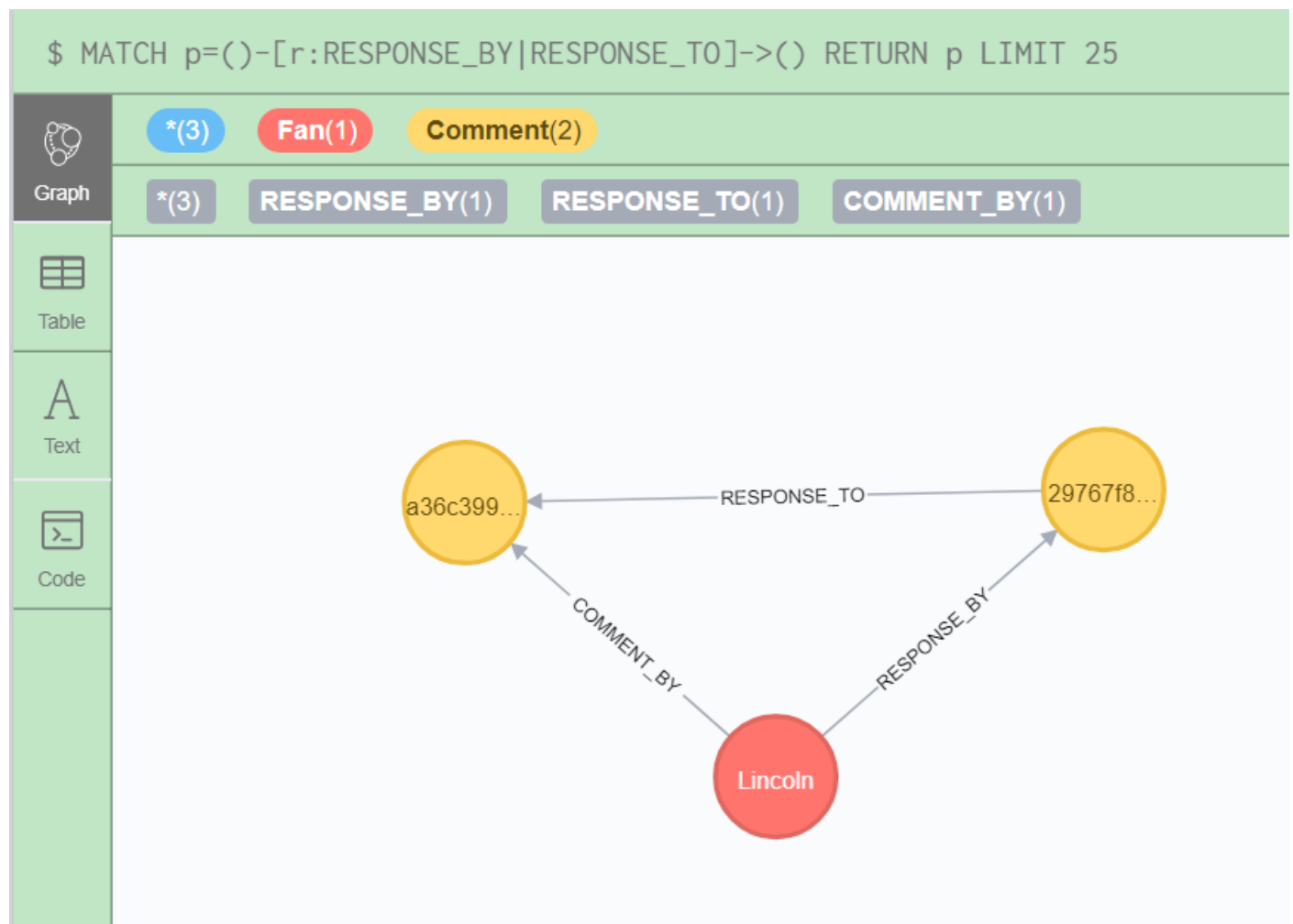

6, test_create_comments()

```
PS D:\Courses\IntroductiontoDatabase\Projects\HW4\social_graph> python .\unit_tests_local_social.py
The comment is: (_3500:Comment {comment: 'Awesome', comment_id: 'a36c3992-4a10-43fb-b786-8a0db7de9e42'})
```

```
$ MATCH p=()-[r:COMMENT_ON|COMMENT_BY]->() RETURN p LIMIT 25
```

7, test_create_sub_comments()

```
original comment is: (_3500:Comment {comment: 'Awesome', comment_id: 'a36c3992-4a10-43fb-b786-8a0db7de9e42'})
sub comment is: (_3501:Comment {comment: 'Totally agree!', comment_id: '29767f83-41e3-480a-9abd-8a73019feea8'})
```

```
$ MATCH p=()-[r:RESPONSE_BY|RESPONSE_TO]->() RETURN p LIMIT 25
```


8, test_get_player_comments

```
[
  {
    "fan": {
      "uni": "al1",
      "last_name": "Lincoln",
      "first_name": "Abraham"
    },
    "comment": {
      "comment_id": "a36c3992-4a10-43fb-b786-8a0db7de9e42",
      "comment": "Awesome"
    },
    "player": {
      "last_name": "Pedroia",
      "first_name": "Dustin",
      "player_id": "pedrodu01"
    }
  }
]
```
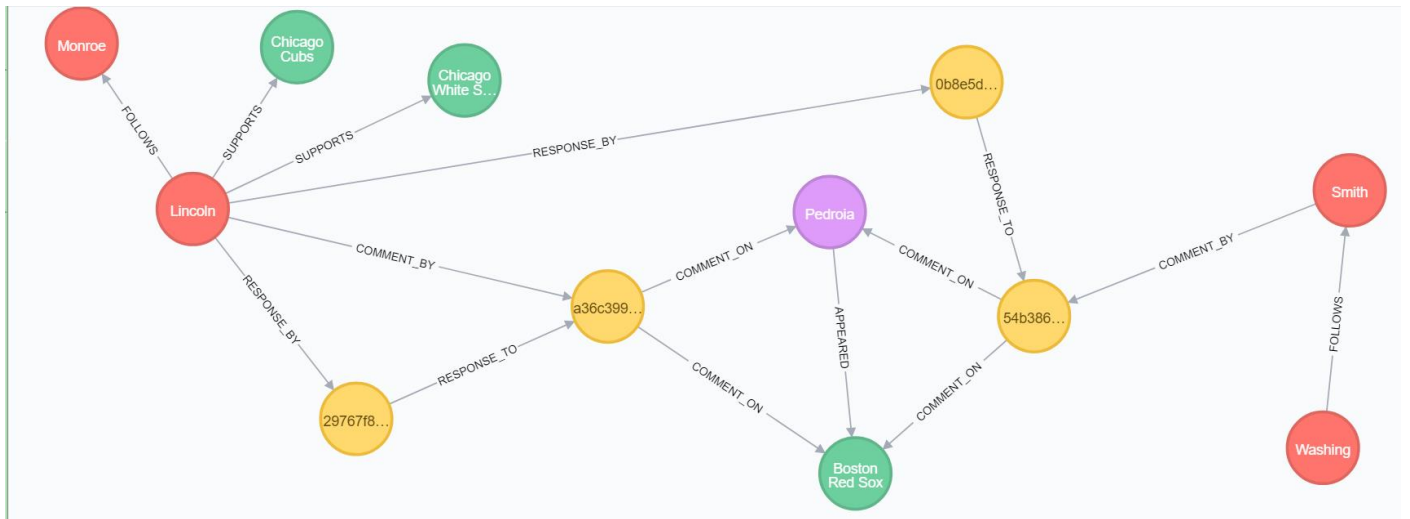
PS D:\Courses\IntroductiontoDatabase\Projects\HW4\social_gra

9, test_get_team_comments

```
[
  {
    "fan": {
      "uni": "al1",
      "last_name": "Lincoln",
      "first_name": "Abraham"
    },
    "comment": {
      "comment_id": "a36c3992-4a10-43fb-b786-8a0db7de9e42",
      "comment": "Awesome"
    },
    "team": {
      "team_name": "Boston Red Sox",
      "team_id": "BOS"
    }
  }
]
```

10, test_create_comment2

The comment is: (_3503:Comment {comment: 'Not that good`Abraham, you agree?', comment_id: '54b386bd-96ff-4280-80ab-57ff0511994
3'})
sub comment is: (_3504:Comment {comment: "That's non-sense!!!", comment_id: '0b8e5d65-9b3c-42f3-9b30-0cf5a040a26c'})

Now, we can see a complete relation graph between the player, team, fan and comments, the Simit comment on the player Pedroia, while Lincoln sub-comment on his comment. Also, Lincoln comment directly to the team BOS and player Pedroia, also, Lincoln comments on himself.

11, test_get_comment2

```
Get player comment:
[
  {
    "fan": {
      "uni": "js1",
      "last_name": "Smith",
      "first_name": "John"
    },
    "comment": {
      "comment_id": "54b386bd-96ff-4280-80ab-57ff05119943",
      "comment": "Not that good~Abraham, you agree?"
    },
    "player": {
      "last_name": "Pedroia",
      "first_name": "Dustin",
      "player_id": "pedrodu01"
    }
  },
  {
    "fan": {
      "uni": "al1",
      "last_name": "Lincoln",
      "first_name": "Abraham"
    },
    "comment": {
      "comment_id": "a36c3992-4a10-43fb-b786-8a0db7de9e42",
      "comment": "Awesome"
    },
    "player": {
      "last_name": "Pedroia",
      "first_name": "Dustin",
      "player_id": "pedrodu01"
    }
  }
]
Get team comments:
[
  {
    "fan": {
      "uni": "js1",
      "last_name": "Smith",
      "first_name": "John"
    },
    "comment": {
      "comment_id": "54b386bd-96ff-4280-80ab-57ff05119943",
      "comment": "Not that good~Abraham, you agree?"
    },
    "team": {
      "team_name": "Boston Red Sox",
      "team_id": "BOS"
    }
  },
  {
    "fan": {
      "uni": "al1",
      "last_name": "Lincoln",
      "first_name": "Abraham"
    },
    "comment": {
      "comment_id": "a36c3992-4a10-43fb-b786-8a0db7de9e42",
      "comment": "Awesome"
    },
    "team": {
      "team_name": "Boston Red Sox",
      "team_id": "BOS"
    }
  }
]
```
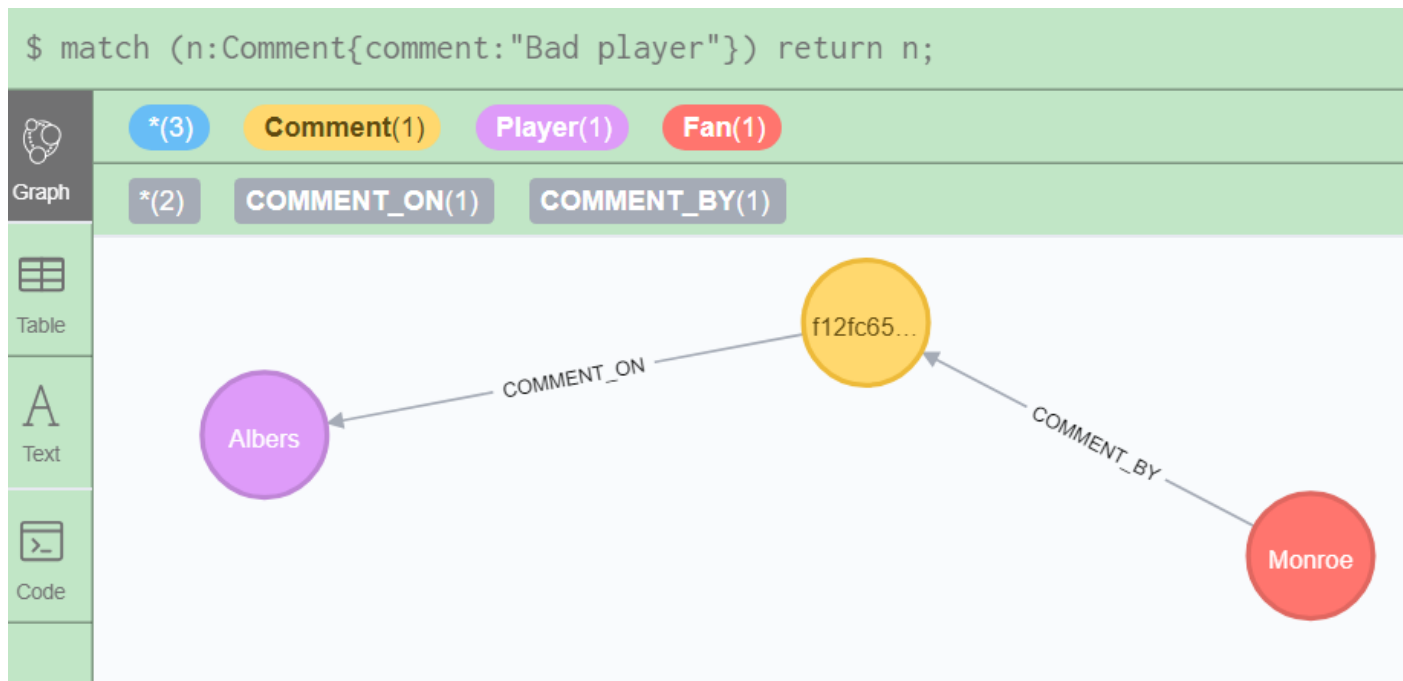
12, test_create_player_comment_only

The comment is: (_3505:Comment {comment: 'Bad player', comment_id: 'f12fc657-bc0a-449f-a8d7-dc748aada7fc'})

```
$ match (n:Comment{comment:"Bad player"}) return n;
```


13, 12, test_create_team_comment_only

The comment is: (_3506:Comment {comment: 'Bad team', comment_id: '5c522a4b-1751-43d7-a38f-bd705acd5ee9'})