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Question: Which is the most competitive club/team to watch in Europe?

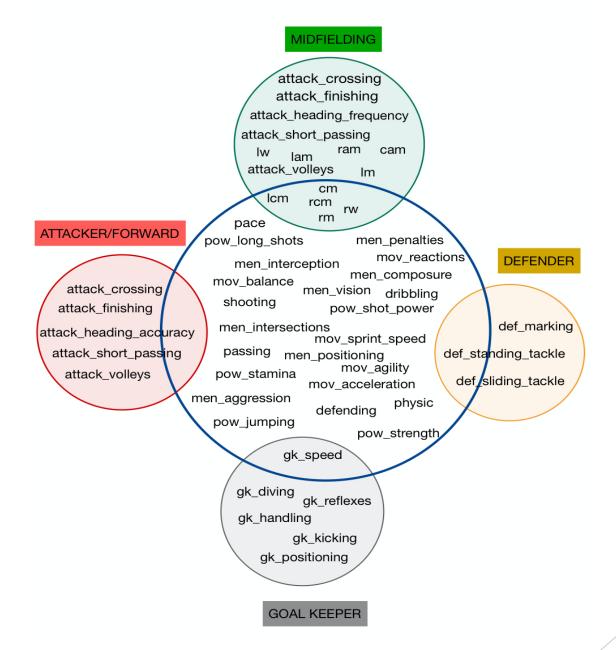
## Types of Fifa Players

- Defenders
- Attackers/Forward
- Midfielders
- Goalkeepers

Types of FIFA Players w.r.t. Positions

- **Defender**: Back (eg. CB, LB, RB)
- Midfielder: Mid (eg. CM, LM, RM)
- Attacker: Forward (eg. CF, LF, RF)

#### Features





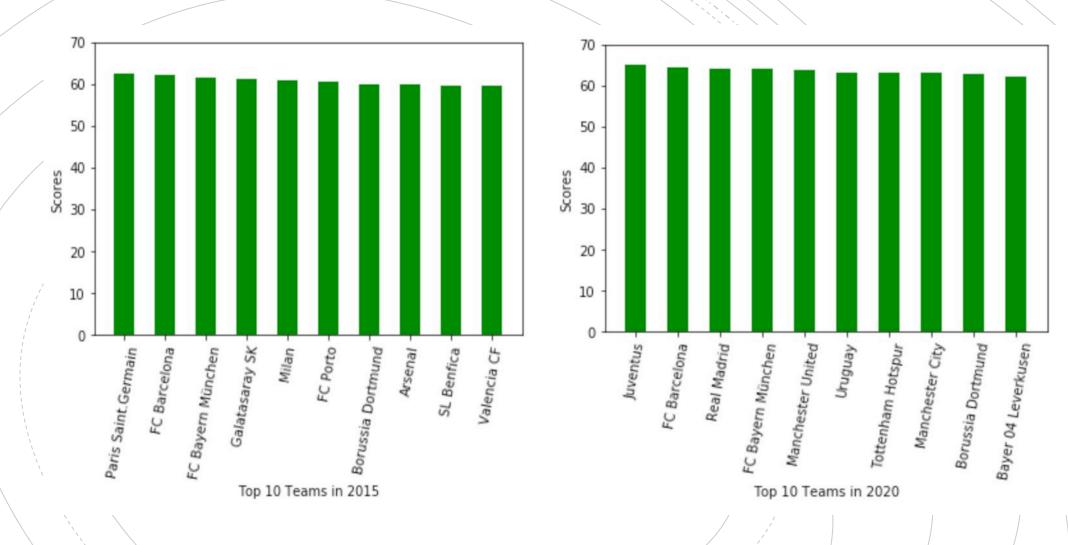
- 1. Group the Players by their respective Clubs.
- 2. Compute the mean of all the selected attributes and created a new metric for each Club:
  - Defender\_score
  - Attacker\_score
  - Midfielder\_score
  - Goalkeeper\_score
- 3. Compute the mean of these scores to obtain the best performing clubs arranged in descending order (Best-first).

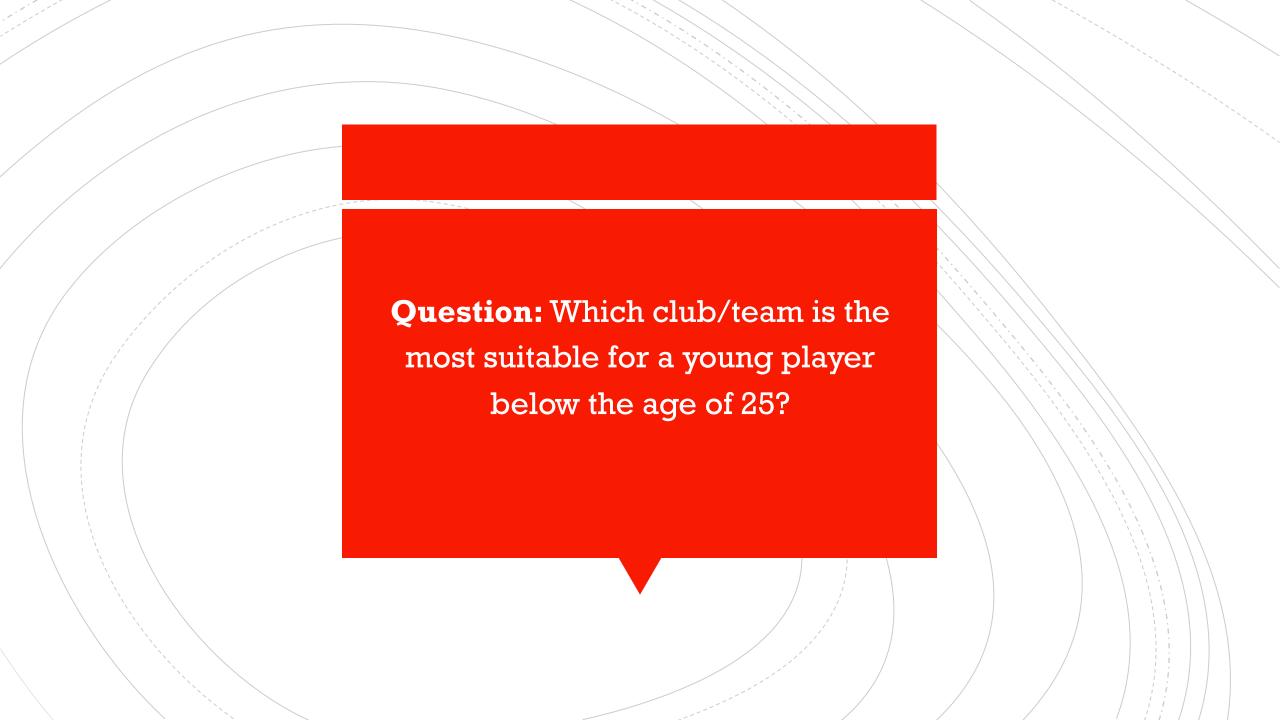
# Snapshots

	club	goalkeeper_score	forward_score	midfielder_score	defender_score	final_score_15
380	Paris Saint.Germain	34.706875	72.261364	71.483413	71.388313	62.459991
184	FC Barcelona	40.242381	69.121591	68.874113	71.328770	62.391714
187	FC Bayern München	40.227381	66.376313	69.272331	70.619857	61.623971
236	Galatasaray SK	37.238333	69.968889	69.259624	69.083844	61.387672
333	Milan	37.348810	68.290985	70.624396	67.796616	61.015201
158	Derry City	30.261905	50.212121	50.146825	48.798701	44.854888
163	Drogheda United	29.875000	52.757576	48.120635	48.071429	44.706160
77	Bray Wanderers	29.732143	50.944444	49.654762	46.795238	44.281647
518	UCD AFC	30.702381	48.227273	49.145635	48.003030	44.019580
47	Athlone Town	29.535714	49.103030	49.712698	46.482684	43.708532

	club	goalkeeper_score	forward_score	midfielder_score	defender_score	final_score_20
342	Juventus	40.348214	74.315152	73.513784	71.801587	64.994684
218	FC Barcelona	39.904762	77.213636	70.592857	70.384921	64.524044
491	Real Madrid	38.630952	74.200000	72.028274	71.687075	64.136575
220	FC Bayern München	37.273810	70.045455	74.421245	74.235931	63.994110
393	Manchester United	42.559524	72.496970	70.839286	69.664160	63.889985
268	Finn Harps	30.535714	54.915152	51.196429	50.954762	46.900514
89	Bolton Wanderers	33.178571	50.074242	53.518519	50.510823	46.820539
169	Crewe Alexandra	30.250000	51.430303	52.290816	51.281385	46.313126
655	Waterford FC	26.017857	48.975758	55.302381	51.628571	45.481142
615	UCD AFC	28.392857	50.470707	50.676871	48.654762	44.548799

#### RESULTS







- 1. Calculated overall mean for "potential" values for all the players present in the data set for the year 2015.
- 2. Calculated mean for the "potential" values for the players in the age group of 27 and above.
- 3. Now calculated the mean of the above two calculated means and setting it as a metric for finding our prospective young players.
- 4. Finding the top 250 players having the highest "potential" values in the pool of players with age 27 and above.
- 5. Finding the top 250 clubs for players having the "potential" equal or above to the mean calculated in step 3 and age less than 25 or less.

### Steps (contd.)

- 6. Now finding the common club names from the pool of clubs obtained in step 4 and step 5, for old(age 27 and above) and young players (age 25 or below).
- 7. Repeating the above steps for the data from year 2020.
- 8. Now finding the common club names from the pool of clubs obtained for year 2015 and for year 2020.
- 9. From the analysis done for part 1 related to finding most competitive clubs for year 2015 and 2020, we combined the club names data and found common names from our obtained club names data in the step 8 and got the most competitive clubs providing good exposure to young talent.

### Results

'AS Monaco', 'Arsenal', 'Atlético Madrid', 'Bayer 04 Leverkusen', 'Borussia Dortmund', 'Borussia Mönchengladbach', 'Chelsea', 'Everton', 'FC Barcelona', 'FC Bayern München', 'FC Porto', 'FC Schalke 04', 'Juventus', 'LOSC Lille', 'Lazio', 'Liverpool', 'Manchester City', 'Manchester United', 'Milan', 'Napoli', 'Newcastle United', 'Real Madrid', 'Roma', 'SL Benfica', 'Sampdoria', 'Shakhtar Donetsk', 'Tottenham Hotspur', 'Valencia CF', 'Villarreal CF'], dtype=object)

