

1. Return the full name as a single string and the Identification number of all the players with German Citizenship and taller than 170cm.

```
SELECT ?name ?playerID ?pHeight WHERE{
    ?player rdf:type fo:Player;
        foaf:firstName ?fname;
        foaf:lastName ?lname;
        fo:playerID ?playerID;
        fo:height ?pHeight;
        fo:hasCountry countries:de.
    BIND(CONCAT(?fname,"",?lname) AS ?name).
    FILTER(?pHeight > 170)
}}
```

```
SELECT ?name ?playerID ?pHeight WHERE{
    ?player rdf:type fo:Player;
        foaf:firstName ?fname;
        foaf:lastName ?lname;
        fo:height ?pHeight;
        fo:playerID ?playerID;
        fo:hasCountry countries:de.
    BIND(CONCAT(?fname,"",?lname) AS ?name).
    FILTER (?pHeight > 170)
}
```

2. Return the gameId and the events that happened during each game combined in one cell related to the player with the id = "187499".

```
SELECT ?gameID ?pName
(GROUP_CONCAT(DISTINCT?eventType ; separator = ",")AS
?playerEvents) WHERE{
    ?event rdf:type fo:GameEvent;
        fo:eventType ?eventType;
        fo:gameID ?gameID;
        fo:playerID|fo:playerAssistID|fo:playerInID
"187499"^^xsd:string.
    ?player rdf:type fo:Player;
        fo:playerID "187499"^^xsd:string;
        foaf:name ?pName
    }

GROUP BY ?gameID ?pName
```

```
SELECT ?gameID ?pName (GROUP_CONCAT(DISTINCT?eventType ; separator = ",")AS ?playerEvents) WHERE{

    ?event rdf:type fo:GameEvent;
        fo:eventType ?eventType;
        fo:gameID ?gameID;
        fo:playerID|fo:playerAssistID|fo:playerInID "187499"^^xsd:string.
    ?player rdf:type fo:Player;
        fo:playerID "187499"^^xsd:string;
        foaf:name ?pName
}

GROUP BY ?gameID ?pName|
```

3. Return the names of the top ten players who participated the most in the football games (appeared in games)

```
SELECT ?name ?pID (COUNT(?appearance) AS
?appearancesCount) WHERE {
    ?appearance rdf:type fo:Appearance;
                fo:playerName ?name;
                fo:playerID ?pID.
}
GROUP BY ?pID ?name
ORDER BY DESC(?appearancesCount)
LIMIT 10
```

```
SELECT ?name ?pID (COUNT(?appearance) AS ?appearancesCount) WHERE {
    ?appearance rdf:type fo:Appearance;
                fo:playerName ?name;
                fo:playerID ?pID.
}
GROUP BY ?pID ?name
ORDER BY DESC(?appearancesCount)
limit 10
```

4. Return the players who scored or assisted more than 300 goals.

```
SELECT ?pID ?name (COUNT(?event)AS ?goalsNum) WHERE{

    ?event rdf:type fo:GameEvent;
           fo:gameID ?gameID;
           fo:eventType "Goals"^^xsd:string;
           fo:playerID|fo:playerAssistID ?pID.

    ?player rdf:type fo:Player;
           fo:playerID ?pID;
           foaf:name ?name.
}GROUP BY ?pID ?name
HAVING(COUNT(?event) > 300)
ORDER BY DESC(COUNT(?event))
```

```
SELECT ?pID ?name (COUNT(?event)AS ?goalsNum) WHERE{

    ?event rdf:type fo:GameEvent;
           fo:gameID ?gameID;
           fo:eventType "Goals"^^xsd:string;
           fo:playerID|fo:playerAssistID ?pID.

    ?player rdf:type fo:Player;
           fo:playerID ?pID;
           foaf:name ?name.
}GROUP BY ?pID ?name
HAVING(COUNT(?event) > 300)
ORDER BY DESC(COUNT(?event))
```

5. Is the market value of Real Madrid players is higher than the market value of Bayern München.

```
ASK WHERE {  
  {  
    SELECT (AVG(?marketValueEuro) AS ?value1)  
    WHERE {  
      ?player rdf:type fo:Player;  
        fo:marketValue ?marketValueEuro;  
        fo:ClubName ?name.  
      FILTER (REGEX(?name, "[Rr]eal Madrid*"))  
    }  
  }  
  
  {  
    SELECT (AVG(?marketValueEuro) AS ?value2)  
    WHERE {  
      ?player rdf:type fo:Player;  
        fo:marketValue ?marketValueEuro;  
        fo:ClubName ?name.  
      FILTER (REGEX(?name, "[Ff]C Bayern München*"))  
    }  
  }  
  
  FILTER(?value1 > ?value2)  
}
```

6. Get the name and id of the club with the highest number of foreign players.

```
SELECT ?cName ?cID ?fNumber WHERE {  
    ?club rdf:type fo:Club;  
        foaf:name ?cName;  
        fo:clubID ?cID;  
        fo:foreigners ?fNumber.  
}ORDER BY DESC(?fNumber)  
LIMIT 1
```

```
SELECT ?cName ?cID ?fNumber WHERE {  
    ?club rdf:type fo:Club;  
        foaf:name ?cName;  
        fo:clubID ?cID;  
        fo:foreigners ?fNumber.  
}ORDER BY DESC(?fNumber)  
LIMIT 1
```

7. For each club get the name and age of the oldest player.

```
SELECT DISTINCT ?cNameOut ?pNameOut ?playerBirthDate{
    ?PlayerOut rdf:type fo:Player;
                fo:playerID ?pIDOut;
                foaf:name ?pNameOut;
                fo:birthDate ?playerBirthDate;
    fo:ClubName ?cNameOut.
}

SELECT ?cName (MIN(?bDate) AS ?oldest) WHERE {
    ?player rdf:type fo:Player;
            fo:playerID ?pID;
            foaf:name ?pName;
            fo:birthDate ?bDate;
            fo:ClubName ?cName.
} GROUP BY (?cName)
}

FILTER(?cNameOut = ?cName && ?playerBirthDate = ?oldest)
}
```

```
SELECT DISTINCT ?cNameOut ?pNameOut ?playerBirthDate{
    ?PlayerOut rdf:type fo:Player;
                fo:playerID ?pIDOut;
                foaf:name ?pNameOut;
                fo:birthDate ?playerBirthDate;
    fo:ClubName ?cNameOut.
    {
        SELECT ?cName (MIN(?bDate) AS ?oldest) WHERE {
            ?player rdf:type fo:Player;
                    fo:playerID ?pID;
                    foaf:name ?pName;
                    fo:birthDate ?bDate;
                    fo:ClubName ?cName.
        } GROUP BY (?cName)
    }
    FILTER(?cNameOut = ?cName && ?playerBirthDate = ?oldest)
}
```

8. Return the names of the clubs which have less than 13 players and compete against each other in the same domestic league competition.

```
SELECT ?competitionName ?type (GROUP_CONCAT (DISTINCT
?clubName ; separator = ",") AS ?participatingClubs) WHERE {
```

```
    ?game rdf:type fo:Game;
          fo:homeClubID|fo:awayClubID ?clubID;
          fo:competitionID ?competitionID.
```

```
    ?competition rdf:type fo:Competition;
                  fo:competitionID ?competitionID;
                  fo:competitionType ?type;
                  foaf:name ?competitionName.
```

```
    ?club rdf:type fo:Club;
           fo:clubID ?clubID;
           foaf:name ?clubName;
           fo:squadSize ?size.
```

```
    FILTER(?size < 13 && REGEX(?type,"[Dd]omestic_league*"))
```

```
} GROUP BY ?competitionName ?type
```

```
SELECT ?competitionName ?type (GROUP_CONCAT (DISTINCT ?clubName ; separator = ",") AS ?participatingClubs) WHERE {

    ?game rdf:type fo:Game;
          fo:homeClubID|fo:awayClubID ?clubID;
          fo:competitionID ?competitionID.
    ?competition rdf:type fo:Competition;
                  fo:competitionID ?competitionID;
                  fo:competitionType ?type;
                  foaf:name ?competitionName.
    ?club rdf:type fo:Club;
           fo:clubID ?clubID;
           foaf:name ?clubName;
           fo:squadSize ?size.
    FILTER(?size < 13 && REGEX(?type,"[Dd]omestic_league*"))

} GROUP BY ?competitionName ?type
```


9. Return the number of the games that Arsenal club won in 2022.

```
SELECT (COUNT(?gameID) AS ?numGames)
WHERE {
  {
    ?game rdf:type fo:Game;
      fo:gameID ?gameID;
      fo:homeClubID ?CID;
      fo:homeClubGoals ?goals1;
      fo:awayClubGoals ?goals2;
      fo:date ?date.
    ?club rdf:type fo:Club;
      fo:clubID ?CID;
      foaf:name ?name
    FILTER (REGEX(?name, "[Aa]rsenal*") && ?goals1 > ?goals2 && ?date
    >= "2022-01-01"^^xsd:date).
  }
  UNION
  {
    ?game rdf:type fo:Game;
      fo:gameID ?gameID;
      fo:awayClubID ?CID;
      fo:homeClubGoals ?goals1;
      fo:awayClubGoals ?goals2;
      fo:date ?date.
    ?club rdf:type fo:Club;
      fo:clubID ?CID;
      foaf:name ?name
    FILTER (REGEX(?name, "[Aa]rsenal*") && ?goals2 > ?goals1 && ?date
    >= "2022-01-01"^^xsd:date).
  }
}
```

10- Retrieve the names of the players who scored more than 30 goals in the competitions that happened after 2019 and were born after 1987 .

```
SELECT ?cName ?pName   (COUNT(?event) AS ?goalCount)
WHERE {
    ?event rdf:type fo:GameEvent;
           fo:gameID ?gID;
           fo:playerID ?pID;
           fo:eventType "Goals"^^xsd:string;
           fo:date ?eventDate.
    ?player fo:playerID ?pID;
           foaf:name ?pName;
           fo:birthDate ?date.
    ?game rdf:type fo:Game;
          fo:gameID ?gID;
          fo:competitionID ?cID.
    ?competition rdf:type fo:Competition;
                 fo:competitionID ?cID;
                 foaf:name ?cName.
    FILTER (?date >= "1988-01-01"^^xsd:date && ?eventDate >= "2020-
01-01"^^xsd:date)

} GROUP BY ?pName ?cName
HAVING (COUNT(?event) > 30)
```

```
SELECT ?cName ?pName   (COUNT(?event) AS ?goalCount)
WHERE {
    ?event rdf:type fo:GameEvent;
           fo:gameID ?gID;
           fo:playerID ?pID;
           fo:eventType "Goals"^^xsd:string;
           fo:date ?eventDate.
    ?player fo:playerID ?pID;
           foaf:name ?pName;
           fo:birthDate ?date.
    ?game rdf:type fo:Game;
          fo:gameID ?gID;
          fo:competitionID ?cID.
    ?competition rdf:type fo:Competition;
                 fo:competitionID ?cID;
                 foaf:name ?cName.
    FILTER (?date >= "1988-01-01"^^xsd:date && ?eventDate >= "2020-01-01"^^xsd:date)

} GROUP BY ?pName ?cName
HAVING (COUNT(?event) > 30)
```

