

1. Find all the countries which are in Asia and South America.

```
C:\Windows\system32\cmd.exe - mongo
>
> db.cities.aggregate(
... [
... { $match: { $or : [ { continent: "Asia" }, {continent: "South America" } ] } },
... { $project : {country : 1,_id:0} }
... ]
... ).pretty();
{ "country" : "South Korea" }
{ "country" : "India" }
{ "country" : "China" }
{ "country" : "China" }
{ "country" : "Japan" }
{ "country" : "Japan" }
{ "country" : "Pakistan" }
{ "country" : "Bangladesh" }
{ "country" : "Brazil" }
{ "country" : "Brazil" }
{ "country" : "India" }
{ "country" : "Argentina" }
{ "country" : "India" }
{ "country" : "Philippines" }
{ "country" : "China" }
>
```

2. Display all the unique continents and display the continent name.

```
C:\Windows\system32\cmd.exe - mongo
>
> db.cities.aggregate(
... [
... { $group : { _id: "$continent" } }
... ]
... ).pretty();
{ "_id" : "South America" }
{ "_id" : "Europe" }
{ "_id" : "North America" }
{ "_id" : "Africa" }
{ "_id" : "Asia" }
>
```

3. Following the previous query, add the total population for each continent

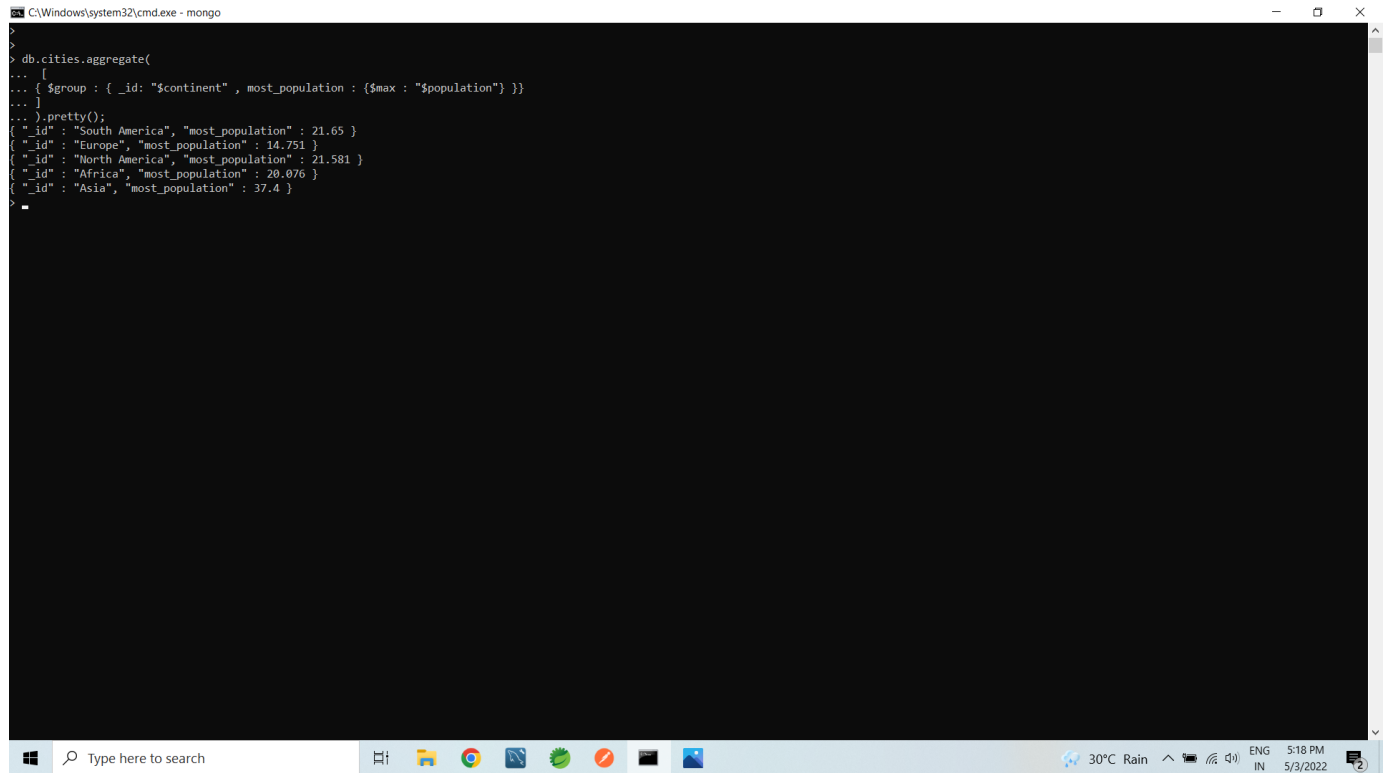
```
C:\Windows\system32\cmd.exe - mongo
>
>
> db.cities.aggregate(
... [
... { $group : { _id: "$continent" , total : { $sum : "$population" } }}
... ]
... ).pretty();
{ "_id" : "South America", "total" : 49.91 }
{ "_id" : "Europe", "total" : 14.751 }
{ "_id" : "North America", "total" : 40.4 }
{ "_id" : "Africa", "total" : 33.539 }
{ "_id" : "Asia", "total" : 254.028 }
>
```

4. Following the previous one, sort the result based on the total population in descending order and display the top 3 countries.

```
C:\Windows\system32\cmd.exe - mongo
>
>
> db.cities.aggregate(
... [
... { $group : { _id: "$continent" , total : { $sum : "$population" } }},
... { $sort : {total : -1} },
... { $limit : 3 }
... ]
... ).pretty();
{ "_id" : "Asia", "total" : 254.028 }
{ "_id" : "South America", "total" : 49.91 }
{ "_id" : "North America", "total" : 40.4 }
>
```

5. For each continent, display the most populated city

```
C:\Windows\system32\cmd.exe - mongo
>
>
> db.cities.aggregate(
... [
... { $group : { _id: "$continent" , most_population : { $max : "$population" } } }
... ]
... ).pretty();
{ "_id" : "South America", "most_population" : 21.65 }
{ "_id" : "Europe", "most_population" : 14.751 }
{ "_id" : "North America", "most_population" : 21.581 }
{ "_id" : "Africa", "most_population" : 20.076 }
{ "_id" : "Asia", "most_population" : 37.4 }
>
```



The screenshot shows a Windows command prompt window titled "C:\Windows\system32\cmd.exe - mongo". The user has entered a MongoDB aggregation command to find the most populated city for each continent. The output is displayed in a pretty-printed JSON format. The results are as follows:

Continent	Most Populated City (Population)
South America	21.65
Europe	14.751
North America	21.581
Africa	20.076
Asia	37.4

The Windows taskbar at the bottom shows the search bar, taskbar icons for File Explorer, Google Chrome, and other applications. The system tray on the right indicates a temperature of 30°C, rain, and the date/time as 5:18 PM on 5/3/2022.