

## Paris 2024

The medal table from the Paris 2024 Olympics is imported into a program. The program should then identify all countries who won more gold medals than Great Britain.

### Question 1

Complete the Data Flow diagram for this program ...

Step	In	Out
<b>1 Import File</b> Import contents from file		country[], gold[], silver[], bronze[]
<b>2 Find Medals</b> Find the number of gold medals gained by Great Britain.		
<b>3 Find &amp; Display Countries</b> Display the name of all countries who won more gold medals than Great Britain.		

### Question 2

Using a recognised design technique, design the algorithm required for Step 2.

See - [4A - Olympic Games](#)

## Winter Ski Resort

A winter sports company stores details about 150 ski runs along with their grading, the ski resort in which they are located and their length in kilometres. Sally wants to write a program to find the longest run at a particular resort.

Here is a sample of the information stored.

```
Agamemnon, Green, Devils Peak, 12.75
Alabama, Red, Palomonte, 0.85
Alaska, Black, Palomonte, 11.90
Alder, Red, White Hill, 10.20
Alpha Centauri, Green, Les Orcs, 5.10
Aphrodite, Blue, Devils Peak, 17.00
Apollo, Red, Devils Peak, 6.80
Arabian Sea, Green, Paradise, 1.70
Arctic Ocean, Red, Paradise, 1.70
```

The top level algorithm for this program is shown below.

Step	In	Out
1 Get details from file		resortData[resort()]
2 Get resort that is being search for		targetResort
3 Find the longest ski run at the resort		
4 Display the name of the longest ski run at the resort		

- a) Complete the data flow for Steps 3 & Step 4. 2
- b) Using a recognised design technique, refine step 3. 4