

There are 18 weather stations across a large island, stored in a 1D global array, `StationName[]`. Each station takes a temperature reading every hour of the week – 168 readings. This is stored in a 2D global array `Temp[]`, where the first index is the station number, corresponding to the `StationName` entry, and the second index the hour of the reading in the week.

Sample data is shown below

`StationName`

| | |
|---|-------------|
| 1 | Lightdell |
| 2 | Esterlyn |
| 3 | Icefield |
| 4 | Bridgemarsh |
| 5 | ... |

`Temp`

| | 1 | 2 | 3 | 4 | 5 | 6 | ... | 168 |
|---|------|------|------|------|------|-----|-----|-----|
| 1 | 10.0 | 11.9 | 13.7 | 15.5 | 17.1 | ... | | |
| 2 | 11.8 | 12.0 | 11.8 | 11.4 | 10.7 | ... | | |
| 3 | 19.0 | 19.0 | 19.0 | 19.0 | 18.9 | ... | | |
| 4 | 12.1 | 12.1 | 12.1 | 12.2 | 12.3 | ... | | |
| 5 | ... | ... | ... | ... | ... | ... | | |
| | | | | | | | | |

A subprogram `CaptureData()` captures the data into the arrays.

Various outputs are required:

- Maximum temperature for each station through the week
- The name of the station with the hottest temperature.
- Average Temperature for each hour across all stations
- A count of the total number of hours across all stations where the temperature is at or above 30°C.

You must use pseudocode or program code and add comments to explain how your code works. Declare all the variables required, including `StationName` and `Temp` and include a call to `CaptureData()` to initialise the arrays.