**CSC404 – MINI PROJECT**

The following table contains data for total daily numbers of new(active) patients admitted to COVID Control centre for the Nine districts in Selangor for the first two weeks of June 2021. The data are grouped into male(M) and female(F) patients.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **COVID-19 NEW CASES JUNE 2021 - SELANGOR** | | | | | | | | | | | | | | |
| **WEEK1 & WEEK2** | **SUNDAY** | | **MONDAY** | | **TUESDAY** | | **WEDNESDAY** | | **THURSDAY** | | **FRIDAY** | | **SATURDAY** | |
|  | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** |
| **GOMBAK** | 100 | 20 | 102 | 34 | 110 | 31 | 90 | 26 | 105 | 70 | 78 | 83 | 90 | 75 |
| **KLANG** | 120 | 24 | 122 | 41 | 132 | 38 | 108 | 31 | 125 | 84 | 94 | 99 | 108 | 90 |
| **SABAK BERNAM** | 30 | 6 | 31 | 10 | 33 | 9 | 27 | 8 | 31 | 21 | 24 | 29 | 27 | 23 |
| **SEPANG** | 20 | 4 | 20 | 7 | 22 | 6 | 18 | 5 | 21 | 14 | 16 | 21 | 18 | 15 |
| **HULU LANGAT** | 10 | 2 | 10 | 3 | 11 | 3 | 9 | 3 | 10 | 7 | 8 | 13 | 9 | 8 |
| **KUALA LANGAT** | 5 | 1 | 5 | 2 | 6 | 2 | 5 | 1 | 5 | 3 | 4 | 9 | 5 | 4 |
| **PETALING** | 150 | 30 | 153 | 51 | 165 | 47 | 135 | 39 | 157 | 105 | 118 | 123 | 135 | 112 |
| **HULU SELANGOR** | 20 | 4 | 20 | 7 | 22 | 6 | 18 | 5 | 21 | 14 | 16 | 21 | 18 | 15 |
| **KUALA SELANGOR** | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 2 | 2 | 7 | 3 | 3 |

The Selangor COVID task force requested you to construct a complete C++ program to do the following:

* Add the above data and simulate data for week3 and week4 for the month and store them in a data file as input. -haikal
* A record of Head of center’s as well as hospital director’s contact details for every district is also required for communication purpose and stored in a separate input file. - haikal
* Read the data from the input file and store it into appropriate data structure. - hatikah
* Determine and display the total new cases for every district for the month. - hatikah
* Determine and display the highest new cases and the district in the month. - asyraf
* Assuming the rate of daily recovery is 50% and 1% death prediction from active cases, display a warning sign if the weekly active rate (total new cases – total recovery- total death) has reached 1000. - asyraf
* Determine the number of doctors and nurses required for each district using the distribution of 1 doctor per 20 patients and 1 nurse per 30 patients - fatini
* At the end of the process, design and prepare a report of the above findings together with other important details and write it into a file named “*covid19\_June.out*”. - fatini