

Task

Attached you will find the file "data.csv".

It contains meter readings of energy consumption (kWh) from June 2011 to August 2011 in hourly resolution.

The first column contains unix timestamps, the second column contains Meter IDs, and the third column contains values.

There is only one Meter ID present in this file.

The task consists of reading all data from this file, calculating the data into daily, weekly and monthly values, and present the result in three tables.

The highest hourly value and the time of this peak value must also be displayed in the table.

The timestamps in the file represents the time of the finished value, meaning that if a value has the time 08:00, this value's time span is between 07:00:00 and < 08:00:00.

This will mean that reading at 00:00 belongs to the previous day.

No Database shall be used in this assignment. Otherwise, you are completely free to decide how you solve this.

Example output on the following page.

Daily values:

Date	Sum	Peak Value	Peak Time
2011-06-01	16372	867	2011-06-01 12:00:00
2011-06-02	15767	734	2011-06-02 08:00:00
2011-06-03	15245	727	2011-06-03 08:00:00
2011-06-04	15212	748	2011-06-04 20:00:00
2011-06-05	15524	746	2011-06-05 21:00:00
2011-06-06	16701	896	2011-06-06 09:00:00
...

Weekly values:

Year	Week	Sum	Peak Value	Peak Time
2011	22	78120	867	2011-06-01 12:00:00
2011	23	153701	3156	2011-06-10 06:00:00
2011	24	107928	968	2011-06-14 10:00:00
2011	25	117476	1023	2011-06-24 17:00:00
2011	26	105719	925	2011-06-28 20:00:00
2011	27	105529	853	2011-07-06 13:00:00
2011	28	109502	1393	2011-07-16 20:00:00
2011	29	111393	950	2011-07-18 17:00:00
2011	30	104225	746	2011-07-25 17:00:00
2011	31	107728	779	2011-08-06 08:00:00
2011	32	75577	1553	2011-08-11 20:00:00

Monthly values:

Year	Month	Sum	Peak Value	Peak Time
2011	6	519397	3156	2011-06-10 06:00:00
2011	7	474196	1393	2011-07-16 20:00:00
2011	8	183305	1553	2011-08-11 20:00:00