

4. Monthly traffic list of an Internet service provider

File *adatforg.csv* contains the monthly data traffic data of the subscribers of an Internet service provider.

Using a worksheet processing program, solve the following exercises.

During the solution take the following into consideration.

- Whenever possible, use a formula, function in the solution.
- There are parts in the exercise that use the results from a previous question. If you could not solve a previous part completely, keep the partly good solution, or instead of a formula resulting in a number use “1024”, instead of a text use the words “I don’t know” and work on with these values. This way you can receive marks for these exercise parts as well.

1. Import file *adatforg.csv* into your worksheet processor starting from cell *A1*, and save it as *haviforg*.
2. Insert a row before the first row and give the following field names to the columns: *Client code*, *Bandwidth*, *1*, *2*, *3*, *4*, *5*, *6*, *7*, *8*, *9*, ..., *30*, *Monthly traffic*, *Daily average*, *Excess*.
3. The download values are given in megabytes. For this reason, set the unit displayed after the data to MB.
4. In the *Monthly traffic* column, calculate the monthly data traffic of the individual clients.

Client code	Bandwidth	1	2	3	4	5	6
5030966334	256	326 MB	363 MB	590 MB	456 MB	492 MB	592
7381415400	256	213 MB	295 MB	138 MB	394 MB	523 MB	370
5067666678	512	368 MB	370 MB	239 MB	104 MB	548 MB	435
5426426292	256	323 MB	499 MB	204 MB	45 MB	21 MB	556
6099642927	256	364 MB	100 MB	560 MB	353 MB	106 MB	62
9883143425	512	321 MB	27 MB	559 MB	54 MB	576 MB	48
8229090334	1000	246 MB	248 MB	58 MB	321 MB	384 MB	510

8	29	30	Monthly traffic	Daily average	Excess
5 MB	554 MB	10 MB	9839 MB	328 MB	
2 MB	86 MB	347 MB	8432 MB	281 MB	
3 MB	499 MB	72 MB	10466 MB	349 MB	exceeded
5 MB	195 MB	511 MB	8608 MB	287 MB	
1 MB	416 MB	439 MB	8454 MB	282 MB	
1 MB	391 MB	368 MB	8653 MB	288 MB	
3 MB	533 MB	34 MB	9245 MB	308 MB	

47 3700 1463	512	130 MB	472 MB	137 MB	5 MB	472 MB	344
Load on servers		28701 MB	28388 MB	31117 MB	27152 MB	33159 MB	31003
Highest monthly download		0464968584		11080 MB			
Bandwidth	Number of subscribers						
256	43						
512	32						
1000	25						

5. In the *Daily average* column, calculate the average data traffic of the clients.
6. The service provider set a 10 GB limit for the monthly data traffic. If someone exceeds it, their bandwidth will be decreased next month. Using a function, display the word “*exceeded*” in the *Excess* column in the data row of those users who can expect restrictive measures.
7. After the last data row – leaving one row blank – calculate the daily data traffic of the service provider for each day.
8. Using a function, in cell *E106* give the highest monthly subscriber data traffic.

9. In cell *C106*, determine the client code of the subscriber who produced the highest data traffic in the month using a function.
10. Create an auxiliary table of size 2×4 starting from cell *A108*. Insert words *Bandwidth* and *Number of subscribers* in the first row of the auxiliary table. In the other cells of the first column insert the supplied bandwidths, values 256, 512 and 1000! Set the format of the auxiliary table as shown in the example.
11. Using a function, calculate how many subscribers the service provider has in each bandwidth category.
12. Format the table according to the example. Set the page orientation to landscape.
13. Create a chart that shows the monthly traffic of the first user broken down to days in column form. The title of the chart should be the client code. The chart should not contain a legend and should appear on a separate worksheet. The columns should be green, the background should be white!

30 marks