

4. Taxi

The Urban Taxi Company registers some important data for each driver every day and then processes them. Its aim is to make its operation more economical.

Process the data of the Wednesday working day of Tax Simon, a driver of the company using a worksheet processor. The data can be found in text file `vtt.txt`, which is tagged by tabs and has UTF-8 coding.

During the solution take the followings into consideration:

- *Whenever possible, use a formula, function or reference in the solution.*
 - *If you wish to use the results of a previous exercise part in another exercise part, but you could not solve the former one completely, use its solution as it is, or — considering the small number of data — in the case of time data enter a value between 12 and 18 minutes into the cells, and in other cases use the value 961.2 and work on with this value. This way you may receive marks for this exercise part as well.*
1. Create an empty table and insert the contents of file `vtt.txt` starting from column 2 of row 1 on its worksheet named **Wednesday**. Save the thus created table as `taxi` in the default format of the worksheet processor.
 2. In column 1, enter text “Identifier” into the row containing text “**Time of ordering**”, under it display the identifier of the travels in each row describing a travel. The identifier – as shown in the example – consists of the name of the date, a dash and the serial number of the given travel.
 3. In column *Waiting time* determine for each passenger the time elapsed from the time of ordering to the time of boarding.
 4. In column *Reading on taximeter* determine the fare indicated by the taximeter at the time of arrival using a formula that can be copied without error. The fare consists of two parts: a base fare that is independent of the distance travelled and a fare per km, which is dependent on the distance travelled. The fare per kilometre and the base fare can be found in the first and second rows of the table, respectively.
 5. The Urban Taxi Company offers a discount to its passengers. They drop a part of the fare so that it can be paid off with 100-HUF coins. For example, if at the end of the travel the taximeter indicates 1583 HUF, then only 1500 HUF has to be paid. Considering this, determine the payable amount in column *Payable fare*.
 6. In column *Speed* determine the average speed of the taxi measured in km/hour. The average speed is the ratio of distance travelled and time elapsed from boarding to arrival. During the solution take into consideration that the time data are given with an accuracy of one minute.
 7. In row 1, in the cell next to “**Total distance**” determine the total distance travelled by the taxi with passengers on the given day and in row “**Income**” determine the income of the given day.
 8. Passengers using the service frequently receive a badge on this day. Next to cell “**Total gift**” display the sum spent on this. The price of one badge can be found next to cell “**Gift**”. For frequent passengers column *Frequent passenger card no.* contains the card number.
 9. Most people think that the taxis are used for shorter travels in the morning than in the afternoon. On a new worksheet create a column chart that shows the distance travelled as the function of the times of ordering to prove or disprove this belief. Format the data

points belonging to distances smaller than 3 km with yellow colour and the others with green. The category axis should contain the times of ordering and the value axis should contain the distances. Pay attention to each time of ordering being readable.

10. Format the data in the table. Display the cells containing times in format `hour:minute`. Display the distances travelled with an accuracy of two decimal figures and also add the unit “**km**”. The fares (including the reading on the taximeter) should appear rounded to integral values, with thousands separation and the indication of the currency. Set italics for the characters in the calculated cells. Perform these settings in the first three rows as well.
11. Format the table according to the example. Add a double border to all three blocks containing data. Set equal column width. Pay attention to cell containing text ***Frequent passenger card no.*** being displayed according to the example.
12. The worksheet containing the data should be placed on a page with landscape orientation. The header contains text “**Urban Taxi Company**” in bold style and the footer contains the date in the middle.

30 marks

Example:

Fare per km		150 Ft	Total distance		140,28 km
Base fare		300 Ft	Income		27 600 Ft
Gift		75 Ft	Total gift		525 Ft
Identifier	Time of ordering	Time of boarding	Time of arrival	Distance	Frequent passenger card no.
Wednesday-1	6:23	6:29	6:50	7,54 km	T21231
Wednesday-2	6:58	7:02	7:10	3,40 km	
Wednesday-3	7:32	7:37	8:00	6,05 km	
Wednesday-4	7:59	8:01	8:08	3,98 km	
Wednesday-5	8:16	8:16	8:35	7,00 km	T342344
Wednesday-6	8:46	9:04	9:23	6,19 km	
Wednesday-7	9:12	9:27	9:47	8,66 km	
Wednesday-8	9:44	9:54	10:20	6,58 km	
Wednesday-9	10:15	10:28	10:49	7,08 km	
Wednesday-10	11:08	11:12	11:20	4,84 km	
Wednesday-11	11:31	11:44	12:12	8,41 km	T312124
Wednesday-12	11:54	12:14	12:27	6,06 km	T42421
Wednesday-13	12:32	12:52	13:01	3,65 km	
Wednesday-14	12:57				