Home Assignment 6

Deadline: **09.12.2016**

Project name: **a6\_firstname\_surname** (a6 stands for home assignment 6)

Submission: Upload your solution (zipped or not zipped) to the folder you created in M Drive.

You are provided with two text files, namely, “*departure.txt*” and “*arrival.txt*”. The former contains departure time of various buses while the latter stores arrival time of those buses. By using visual basic programming language, you are required to write a program that simulates a bus moving from Tallinn to Tartu. Your program needs to contain the following features:

1. When the application starts, the program needs to:
2. Display virtual time on the form that starts at **13.00** where by five virtual minutes equals to one real world second.
3. Randomly selects a bus name from an array that contains the following list of bus names, **Arilix, Taisto, Hansabuss, Lux** and **Forcen** and display the selected bus name on the form.
4. Searches the departure time of the selected bus from the *depature.txt* file and display that time on the form.

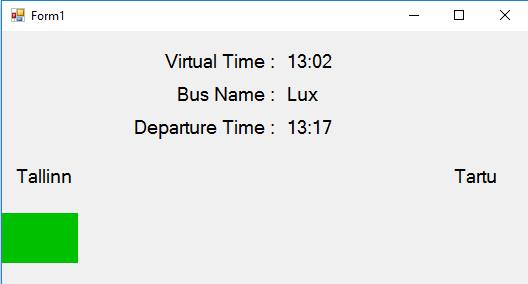


Figure 1: Sample display of the form when the application starts.

1. When the departure time reaches, the bus (coloured picture box) needs to start moving from Tallinn (left margin of the window) to Tartu (right margin of the window) with a particular fixed speed of your choice.
2. When the bus reaches Tartu (right margin of the picture box), the bus stops, virtual time stops and the program **appends** the **arrival virtual time** and **bus name** to the given file named “*arrival.txt*”.

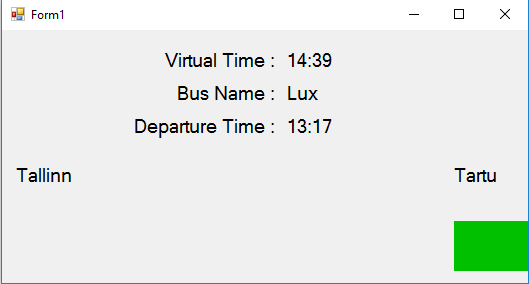


Figure 2 : Sample display of the form when a bus reaches Tartu.

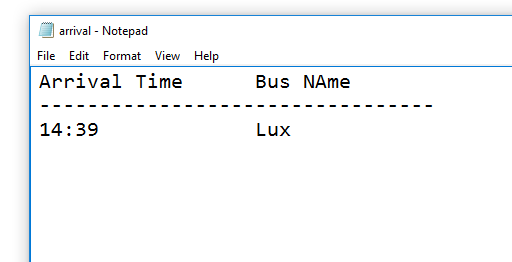


Figure 3: Sample arrival data written to the text file