4. Timetable

The submitted program can be evaluated only if a source file that corresponds to the chosen programming environment exists and it contains the source codes belonging to the solution of the exercise parts.

During evaluation, solutions that generate runtime errors or solutions that are partially correct should also be evaluated. The mark can be awarded if the part of the code that corresponds to the given element is flawless. Marks are awarded for displaying independently of the use of accents.

A program named *timetable* exists		
Saved the source code of the program as *timetable* The mark can be awarded only if the name is accurate and the program is free from compilation or runtime errors.	1 mark	☐
Messages on the screen		
There is an exercise part that requires displaying information on the screen, where the exercise number is displayed and - if required - refers to the content to be entered by the user	1 mark	☐
Displays the exercise number for each exercise part that requires displaying information on the screen The previous mark can be awarded only if at least 4 numbered exercise parts were solved.	1 mark	☐
Processing the input file and storing the data		
Opens the file for reading before reading from it and read one data correctly	1 mark	☐
Reads one data line correctly	1 mark	☐
Reads all data correctly	1 mark	☐
Stores all data correctly	1 mark	☐
Determining the number of trains and the number of stations		
Determines the number of trains and displays it according to the example The mark cannot be awarded if the displayed value is incorrect.	1 mark	☐
Determines the number of stations correctly	1 mark	☐
Displays the correct number of stations according to the example The mark can be awarded if the index of the last station is displayed.	1 mark	☐
Determining the longest waiting time		
Determines the waiting time of at least one train at one station correctly	1 mark	☐
Determines each waiting time correctly for each station for at least one train or for each train for at least one station	1 mark	☐
Determines each waiting time correctly for each train and each station	1 mark	☐
Determines the longest waiting time The mark can be awarded if the waiting times were determined incorrectly but the maximum is determined correctly.	1 mark	☐
Determines the train and the station that belong to the longest of the determined waiting times The mark cannot be broken down.	2 marks	☐
Displays the train and the station identifier and the waiting time according to the example	1 mark	☐

Reading the train identifier and the time		
Reads and stores a train identifier	1 mark	
Reads and stores a time (hour, minute)	1 mark	
The contents of the communication with the user are according to the example	1 mark	
Deviation of the journey time of the train with the read identifier from the scheduled journey time		
Determines the time of departure of the train with the read identifier	1 mark	
Determines the time of arrival of the train with the read identifier at the destination	1 mark	
Calculates the journey time of the given train	1 mark	
Examines one of the three possible cases (longer, shorter or accurate journey time)	1 mark	
Examines all three possible cases	1 mark	
Determines and displays the deviation correctly in at least one case	1 mark	
Determines and displays the deviation correctly in each case	1 mark	
The display corresponds to the example	1 mark	
The mark can be awarded if the displayed value is incorrect but results from a calculation.		
Creating file `journeyX.txt`		
Creates the file name that contains the train identifier	1 mark	
Creates the file with the correct name and writes into the file	1 mark	
The following marks can be awarded independently from the correctness of the file name.		
The file contains only times of arrival that belong to the given train	1 mark	
The file contains all times of arrival that belong to the given train	1 mark	
The file contains one station per line in increasing order	1 mark	
In the file the data are displayed according to the example	1 mark	
Determining the position of trains at the given time		
Displays the identifier of a train that is on its way at the given time	1 mark	
The mark cannot be awarded if an incorrect train identifier is also displayed		
Determines the identifier of exactly those trains that are on their way at the given time	2 marks	
The mark cannot be broken down.		
Gives correct result if the train is waiting at a station (10:04, 7:17)	1 mark	
Gives correct result if the train departs in the minute of arrival (8:45)	1 mark	
Gives correct result if the train is running between two stations (10:20)	1 mark	
Gives correct result if the train is running between the first two stations (6:50) or the last two stations (9:05)	1 mark	
Determines the position correctly for each state in the case of a train	1 mark	
Determines the position correctly for each state in the case of each train	2 marks	
The mark cannot be broken down.		
Displays the result according to the example	1 mark	
The mark can be awarded if at least one line of the output is correct.		
Total:	***45 marks***	