Explanation

1(a). First of all, I took all the input from a txt file as this lab is based on taking input from the txt file. Then we separate the value accordingly using readline()/readlines() functions and find each value whether they are even or not using % technique and eventually we store the output in another text file using write() and with the help of formating.

1(b). Same as the first one in terms of taking input from the file. Then we split() each line and find out the operator and the int value using the int() function and perform the rest of the task according to our desired output and eventually we store the output in another text file using write() and with the help of formating.

2. To solve this problem we took a flag and with the help of flag we identify whether the sort is needed or not and that's how this code can run in O(n) instead of O(n*2). Both input and output are taken and stored in a text file.

3. We run selection sort as it takes less amount of swapping compared to bubble sort algo and then we sort them based on mark and id.Both input and output is taken and stored in a text file.

4. We again performed a selection sort to solve this problem and to find the time I created a separate function for extracting the time easily so that the comparison becomes easier while we have the same train name .

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