

ACS-1904-W2024

Lab #2 Programming: 5000m times

Due by Friday, January 19 at 11:59 pm

- Include your name and student number in each file as a comment

Write a Java program named `TimesFor5000m` that stores and retrieves a list of speed skating Olympic hopefuls along with some of their most recent 5000m times. Declare, allocate and initialize parallel arrays with the following information (i.e., hardcore the data):

Include the following static methods:

- `getSkaterIndex(...)`: searches the array of skater names and returns the index of the skater search key if found, returns -1 if the skater search key is not found.
- `printNthTime(...)`: prints the  $n^{\text{th}}$  time by each skater in the list if it exists.
- `printTimes(...)`: prints the list of the times for one of the skaters in the list.
- Remember that the use of `break` is not allowed except in switch statements, `while(true)` or `while(!done)` are not allowed and you may use only Java class libraries that we have covered in 1903 or 1904.

<u>Skater</u>	<u>5000m Times</u>
Poel	628.54, 625.34, 628.49
Eskil	618.95, 628.62
Koss	603.73, 629.08, 612.12
Kulizhnikov	602.14, 619.69, 607.98, 613.47
Koolman	620.77, 604.39, 608.10, 618.36, 638.66
Roest	639.94, 630.45, 606.86, 639.44
Lunde	621.98, 613.47

- a) Prompt the user to enter a skater's name and display the corresponding list of times. Inform the user if their input does not exist in the list. The skater's name should not be case-sensitive.
- b) Prompt the user for  $n$  and display the  $n^{\text{th}}$  time of each skater, if applicable. The program should continue to ask for a time number until the user enters 0. Your code must account for the possibility that the user will enter 0 as their first input in which case no  $n^{\text{th}}$  times will be printed.

Sample output:

```
enter a skater name:
eskil
618.95, 628.62,
```

```
Enter the time you want to see.(1-7), 0 to quit
```

```
4
Time #4:
Kulizhnikov: 613.47
Koolman: 618.36
Roest: 639.44

Enter another time.(1-7), or 0 to quit
2
Time #2:
Peol: 625.34
Eskil: 628.62
Koss: 629.08
Kulizhnikov: 619.69
Koolman: 604.39
Roest: 630.45
Lunde: 613.47

Enter another time.(1-7), or 0 to quit
0

end of program
```

Submit your Java class (TimesFor5000m.java).