

PROBLEMS

SUBMISSIONS

USERS

CONTESTS

ABOUT

HELLO, YAVORYANKOV83.

Java May'19 DSA Set&Map 1 - 13:38:13



Your task is to write a program to store and access different cars. The different kinds of cars, have model (brand + model - all one word), type and horsepower. The user can create (add) new cars, find all cars of certain type and find the most powerful cars. When a cars is removed it is deleted from the program.

You are given a sequence of commands that must be implemented:

- add MODEL NAME TYPE HORSE POWER adds new car to the program
 - MODEL NAME can be between 1 to 30 cars and must be unique:
 - **TYPE** can be between 1 to 40 cars and may not be unique;
 - HORSE_POWER can be any integer between 100 and 1000, inclusive;
 - Prints "SUCCESS: MODEL_NAME added!", if the car is added successfully;
 - Prints "FAIL: MODEL NAME already exists!", if the car already exists;
- remove MODEL_NAME removes an existing car with MODEL NAME from the program
 - Prints "SUCCESS: MODEL_NAME removed!", if the car was removed successfully;
 - Prints "FAIL: MODEL NAME could not be found!", if the car does not exist in the program;
- **find TYPE** finds the top 10 cars of type TYPE, first ordered by horse power in descending order and then by their model name in ascending order
 - Prints the results in the following format "RESULT: CAR, CAR, CAR" where CAR should be printed in the format "MODEL NAME[TYPE](HORSE POWER)". If no cars are found just print "RESULT: " (ending with one space)
- power NUMBER_OF_CARS prints the top NUMBER_OF_CARS most powerful cars currently in the program in the same format as the "find" command. If there are less cars than requested just return them.
- · end marks the end of the commands and no other commands will follow afterwards

Input

- The input data should be read from the console.
- The input consists of a sequence of commands, each at a separate line, ending by the command "end".



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- The output data should be printed on the console.
- For each command from the input sequence print at the standard output its result as a single line.

Constraints

- All MODEL_NAME and TYPE will consist of letters and digits only. No spaces are allowed.
- The total number of lines in the input will be in the range [1 ... 100 000]

Sample tests

Input

Сору

Submit solution

My submissions All submissions Best submissions

✓ Points: 100 (partial)

O Time limit: 0.6s

Java: 2.0s **■ Memory limit:**

64M

Java: 64M

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▶ TagsHash Tables♪ DifficultyIntermediate



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add VolvoV40 Combi 110 Java May'19 DSA Set&Map 1 - 13:38:13 add VolkswagenPassat Sedan 180 add MercedesSLK Hatchback 280 add SkodaOktavia Sedan 200 add SkodaSuperb Combi 300 add VolkswagenPassat Sedan 180 power 3 find Combi find Hatchback remove AudiQ7 remove MercedesSLK power 3 find AudiQ7 find Hatchback end

Output

Сору



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SUCCESS: VolvoV40 added!

SUCCESS: VolkswagenPassat added!

SUCCESS: MercedesSLK added!
SUCCESS: SkodaOktavia added!
SUCCESS: SkodaSuperb added!

FAIL: VolkswagenPassat already exists!

RESULT: SkodaSuperb[Combi](300), MercedesSLK[Hatchback](280), SkodaOktavia[Sedan](200)

RESULT: SkodaSuperb[Combi](300), SubaruForester[Combi](163), VolvoV40[Combi](110)

RESULT: MercedesSLK[Hatchback](280), AlfaRomeo147[Hatchback](120)

FAIL: AudiQ7 could not be found! SUCCESS: MercedesSLK removed!

RESULT: SkodaSuperb[Combi](300), SkodaOktavia[Sedan](200), VolkswagenPassat[Sedan](180)

RESULT:

RESULT: AlfaRomeo147[Hatchback](120)

Clarifications

No clarifications have been made at this time.

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