

PW - J // Anish's iPhone Battery

Anish's phone is always dead by the end of the day. Anish extensively uses his iPhone to do many "school-related" tasks. Each task he does requires a certain amount of energy while boosting his productivity. Anish wants you to help him maximize his productivity because maximizing his productivity means maximizing his marks.

The first line of input will consist of 2 integers, E_T and N , space-separated. E_T represents the total amount of energy left in Anish's phone. The next N lines will contain a string, A_i , and two numbers P_i and E_i space-separated. A_i is the name of the application; P_i is the productivity boost that the application gives Anish; E_i is the energy the current task uses.

Output the maximum productivity that Anish can get and the minimum energy required to get that productivity on the first line of output separated by a space. The second line of output should consist of each of the applications used to get these values in alphabetical order.

Sample Input 1:

```
10 3
Edsby 7 3
Safari 8 8
Discord 4 6
```

Sample Output 1:

```
11 9
Discord Edsby
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