# 3. Enrollment

*You are planning to study at Software University.   
You need to choose classes so that you gather enough credits to graduate successfully.*

Write a function called **gather\_credits** that **receives information** about credits needed, courses, and their credits, and **returns the result**. The function will receive a **different number of arguments**. The arguments will be passed as follows:

* The first argument will be the **number of credits** you need - an **integer** in the **range [0, 200];**
* The following arguments will be the **tuples with two elements** - the **first** one is the **course name (string)**, and the **second** one is the **course** **credits** **(integer)**;

After receiving the information and calling the function, the program should **start tracking the enrollment process**:

* Take the **course’s name** from each tuple **successively** and **if you need more credits**, **enroll in it**, and proceed to the next one.
* If a course has **already been enrolled in**, **ignore** it, and proceed to the next one.
* If you have **reached the needed number of credits**, **STOP enrolling**!

In the end:

* If you’ve managed to **gather the needed credits**, return the message, including the enrolled courses on a new line:

**"Enrollment finished! Maximum credits: {gathered\_credits}.**

**Courses: {course1, course2, …, courseN}"**

* + return the courses’ names **sorted alphabetically, in ascending** order.
* **Otherwise**, return the message:

**"You need to enroll in more courses! You have to gather {credits\_shortage} credits more."**

***Note: Submit only the function in the judge system***

### Input

* There will be **no input from the console**, just parameters passed to your function.

### Output

* Return one of the **strings** **shown above** depending on the result.

### Constraints

* The **first** argument will always be an **integer**.
* Each **tuple** given will always contain the **course name** with its **credits**.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| print(gather\_credits(  80,  ("Basics", 27),  )) | You need to enroll in more courses! You have to gather 53 credits more. |
| print(gather\_credits(  80,  ("Advanced", 30),  ("Basics", 27),  ("Fundamentals", 27),  )) | Enrollment finished! Maximum credits: 84.  Courses: Advanced, Basics, Fundamentals |
| print(gather\_credits(  60,  ("Basics", 27),  ("Fundamentals", 27),  ("Advanced", 30),  ("Web", 30)  )) | Enrollment finished! Maximum credits: 84.  Courses: Advanced, Basics, Fundamentals |