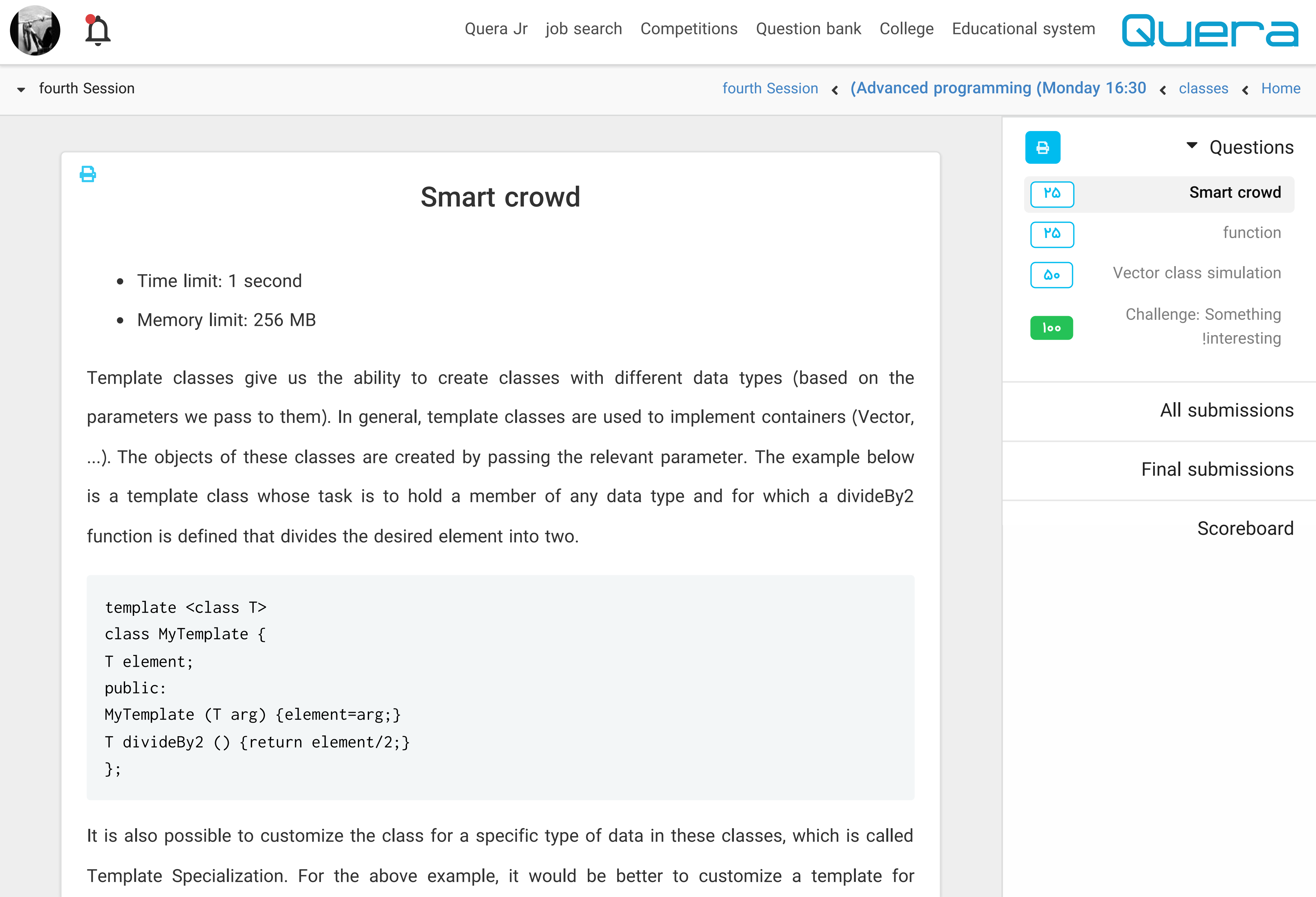

Smart crowd

- Time limit: 1 second
- Memory limit: 256 MB

Template classes give us the ability to create classes with different data types (based on the parameters we pass to them). In general, template classes are used to implement containers (Vector, ...). The objects of these classes are created by passing the relevant parameter. The example below is a template class whose task is to hold a member of any data type and for which a divideBy2 function is defined that divides the desired element into two.

```
template <class T>
class MyTemplate {
T element;
public:
MyTemplate (T arg) {element=arg;}
T divideBy2 () {return element/2;}
};
```

It is also possible to customize the class for a specific type of data in these classes, which is called Template Specialization. For the above example, it would be better to customize a template for character data type. So, instead of the divideBy2 function, you define a printElement function for the char data type:

```
template <>
class MyTemplate <char> {
char element;
public:
MyTemplate (char arg) {element=arg;}
char printElement ()
{
return element;
}
};
```

Now, in this question, we are going to create a template class that is defined for three types of data: int, float, and string, and works as follows for each of them:

- For two data types float and int: add the two given numbers together and print the result.
- For string data type: concatenate two given strings and print the result.

  Now write a program that takes a number N from the user and then receives N lines containing data from the user.

Input

In the first line, the number N is taken from the user, then N lines of data are taken from the user, and each line contains three parts, the first part is one of the three expressions string, int, or float, which indicates the data type of the next two parts, and in The next two parts take two data of the same type.

```
3
string John Doe
int 1 2
float 4.0 1.5
```

Output

Print the current result of the operation.

```
JohnDoe
3
5.5
```

- Integer numbers between 1 and 10 are powers of 5.
- Decimal numbers are between 1.0 and 10.0 and strings are between 0 and 10 characters long.
- Note that you need to customize your template class for the string data type!

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