# C++ Advanced - Exam (12 September 2020)

Write C++ code for solving the task on the following page.

Submit your solution here: <https://judge.softuni.bg/Contests/2556/CPlusPlus-Advanced-Exam-12-September-2020>

Any code files that are part of the task are provided under the folder **Skeleton**.

Please follow the exact instructions on uploading the solutions for each task.

# Task 2 – Scientists

You are given 2 files: **Scientist.h**, **Discovery.h**

Get accustomed to the provided Skeleton and implement the missing functionalities for **Scientist.cpp**, **Discovery.cpp** and **Main.cpp** files.

In the main(), on the **first line**, you are given an integer – **N**

On the **next N lines**, you are given N Scientists followed by a number of discoveries (a discovery has a name, a year and a field of study). There are **four categories** – ***Chemistry****,* ***Physics****,* ***Linguistics and Philosophy***.

In the output, you should print the information in the following way – **"{name of discovery} - {scientist} - {field of study category}",** sorted by year.

The fields of study categories are **numbered**:

* Chemistry -> 0
* Physics -> 1
* Linguistics -> 2
* Philosophy -> 3

The fields of study will always be one of the four fields, shown above.

In the output, print the number of category.

You should submit a single .zip file for this task, containing **ONLY** the files you created. The Judge system has a copy of the other files and will compile them, along with your file, in the same directory.

#### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 2  Chomsky  1  ChomskyHierarchy 1956 Linguistics  Einstein  3  GeneralRrelativity 1915 Physics  PhotoelectricEffort 1905 Physics  MassEnergyEquivalence 1923 Physics | PhotoelectricEffort - Einstein - 1  GeneralRrelativity - Einstein - 1  MassEnergyEquivalence - Einstein - 1  ChomskyHierarchy - Chomsky - 2 |
| 1  Curie  2  Polonium 1898 Chemistry  Radium 1899 Chemistry | Polonium - Curie - 0  Radium - Curie - 0 |