# C++ Advanced Exam – 5 September 2020

Write C++ code for solving the tasks on the following pages.

Submit your solutions here: <https://judge.softuni.bg/Contests/2555/CPlusPlus-Advanced-Exam-5-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 – Discovery

Your task is to write a program which categorises scientific discoveries into certain field. You are given the main() function, which reads an integer value that represents a number of command lines. On each command line you receive information for a discovery.

You should implement a class which contains information about the four **Scientific Fields** and should be able to read from the provided input from the **main()** method and store the data.

The data should be stored in 4 different groups:

* **Philosophy** – type 1
* **Linguistics** – type 2
* **Physics** – type 3
* **Chemistry** – type 4

The class should implement a **print ()** method that **prints** the information, sorted by **year** (ascending order).

Your task is to study the code and write the functionality so that the code accomplishes the task described.

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.

### Restrictions

You should only submit files with **.h** and **.cpp** extensions (in a **.zip** archive). You should **Not** have folders in your **.zip** submission archieve.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 6  DiscoveryA 1965 scientist1 1  DiscoveryB 1999 scientist2 2  DiscoveryC 1899 scientist3 3  DiscoveryD 1965 scientist8 3  DiscoveryE 2000 scientist9 2  DiscoveryF 2019 scientist0 2 | **Physics**:  DiscoveryC 1899 - scientist3  DiscoveryD 1965 - scientist8  **Linguistics**:  DiscoveryB 1999 - scientist2  DiscoveryE 2000 - scientist9  DiscoveryF 2019 - scientist0  **Philosophy**:  DiscoveryA 1965 - scientist1  **Chemistry**: |
| 5  TheoryOfRelativity 1934 Einstein 3  TheoryOfAutomata 1967 Chomsky 2  MolecularMass 1899 Kleid 4  TheoryOfEgoAndSuperEgo 1923 Freud 1  TheoryOf TuringMachines 1975 Chomsky 2 | **Physics:**  **TheoryOfRelativity 1934 - Einstein**  **Linguistics:**  **TheoryOfAutomata 1967 - Chomsky**  **Philosophy:**  **TheoryOf 0 - Freud**  **TheoryOfEgoAndSuperEgo 1923 - Freud**  **Chemistry:**  **MolecularMass 1899 - Kleid** |