# C++ OOP – Exam Retake (11 September 2022)

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

Code should compile under the C++11 standard.

Submit your solutions here: <https://judge.softuni.org/Contests/3598/CPlusPlus-OOP-Retake-Exam-11-September-2022>

Only source code will be accepted as solution for each task.

# Virtual Book

It’s 2001. The Kindle was not invented yet. You have this awesome idea of implementing a book that could be read from an electronic device! Watch out Steve Jobs, here I come!

Your task is to implement the missing functionalities.  
  
General rules are:

* You are given the implementation of a **VirtualPage.** This page can contain **one or more rows** of data.
* Each VirtualPage also has a VirtualBook index (0, 1, 2 ….)
* You are given the raw data for the VirtualPages. It is your task to fill them up.

After the VirtualPages are populated – you are given several commands to process:

* **print\_all** – prints the content of all available pages of the VirtualBook (**if there is any**)
* **remove\_last** – removes the last page of the VirtualBook (**if there are any**)
* **remove\_all** removes all the pages of the VirtualBook (**if there are any**)

### Input

The input is already parsed for you. Nothing additional should be done.

### Restrictions

Time limit: 250ms (0.25s)  
Memory limit: 16 MB

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 3  Hello C++ World  end  This is just a warm up  end  Right?  end  1  print\_all | Printing all pages  Page: 1  Hello C++ World  Page: 2  This is just a warm up  Page: 3  Right? |
| 2  Hello C++ World  This is just a warm up  Right?  end  Testing testing...  Read all  about it  end  3  print\_all  remove\_last  print\_all | Printing all pages  Page: 1  Hello C++ World  This is just a warm up  Right?  Page: 2  Testing testing...  Read all  about it  Removing last page  Printing all pages  Page: 1  Hello C++ World  This is just a warm up  Right? |
| 2  C++ >> Java  end  What is love?  Baby don't hurt me.  Don't hurt me.  No more.  end  4  print\_all  remove\_all  print\_all  remove\_last | Printing all pages  Page: 1  C++ >> Java  Page: 2  What is love?  Baby don't hurt me.  Don't hurt me.  No more.  Removing all pages  Printing all pages  Removing last page |