Computer Programming 2

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Slide here!

Outline

- HW01 solution
- HW02
- Git
- EX01

HW01 solution

```cpp
1    #include <iostream>
2    #include <vector>
3    #include <limits> // For numeric_limits
4
5    using namespace std;
6
7    int main() {
8        int N; // Number of days
9        cin >> N;
10
11       vector<int> prices(N); // Array to store the prices
12       for(int i = 0; i < N; i++) {
13           cin >> prices[i];
14       }
15
16       // Initialize variables for the minimum price so far and the maximum profit
17       int min_price = numeric_limits<int>::max();
18       int max profit = 0;
```

HW02

Description

You are given n arrays, each array is sorted in ascending order. Merge all arrays into one sorted array in ascending order.

Input

First line includes a number n, means there are n arrays. Then there are n sections, each section includes a number k in the first line, and k numbers seperated in space in the second line.

Technical Specification:
- $0 \leq n \leq 10^4$
- $0 \leq k \leq 500$
- $-10^4 \leq num \leq 10^4$

HW02

Output

Merge all arrays into one sorted array in ascending order.
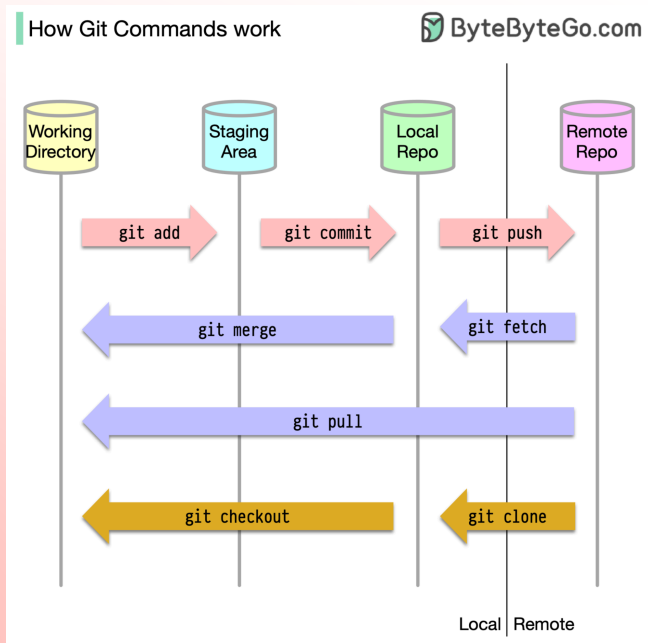
```
3
3
1 4 5
3
1 3 4
2
2 6
```

```
1 1 2 3 4 4 5 6
```

Tips
Do not use `qsort` or `std::sort` or other sorting methods.

Git

- A distributed version control system (VCS)

- Manage and track changes in source code during the development process

How Git Commands work — ByteByteGo.com

What if not git?

⬇	-1.8.0.zip 👥		2017年11月19日	⋮
⬇	20200507.rar 👥		2020年5月6日	⋮
⬇	20200922.rar 👥		2020年9月22日	⋮
⬇	20211001.rar 👥		2021年10月1日	⋮
⬇	20211203.rar 👥		2022年1月14日	⋮
⬇	201903014.rar 👥		2019年3月19日	⋮
⬇	_20180627成功版.rar 👥		2018年7月8日	⋮
⬇	11.20.zip 👥		2017年11月19日	⋮
W	系統文件20190403.docx 👥		2019年4月2日	⋮

Install Git

- Windows: Git Bash

- Ghost: Included

- Mac:

```
brew install git
```

- Linux(Ubuntu/Debian):

```
sudo apt install git
```

Github

- One of the largest repository hosting service.

- Have bunch of tools help developers.

    - Pull requests

    - Issues

    - Wiki

Tips
Git != Github

Setup your Github's git setting

- SSH: Adding a new SSH key to your GitHub account

  - Generating a new ssh-key
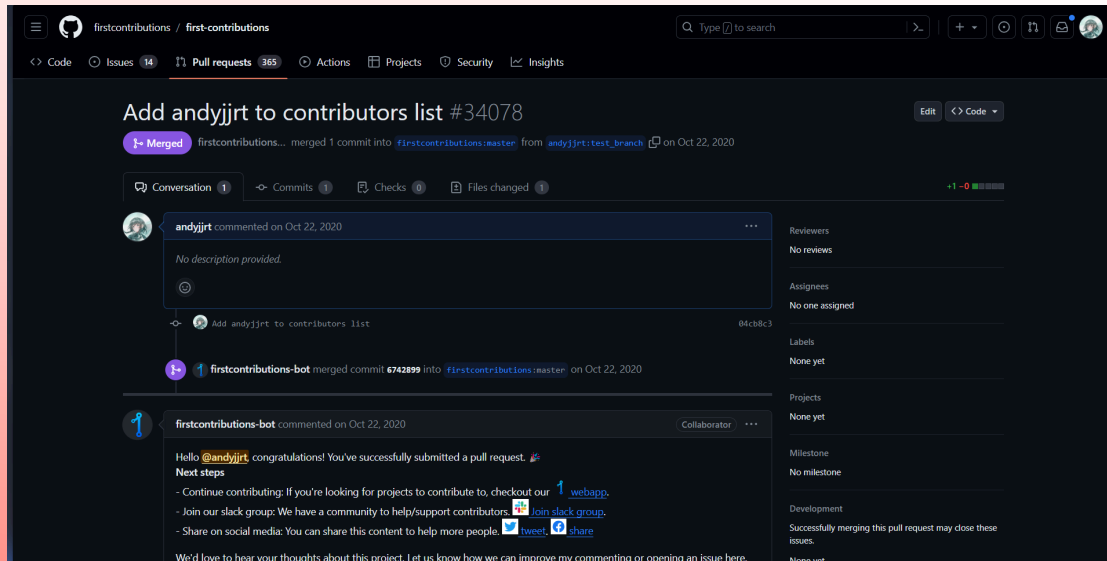 - Highly recommand generate a new one even you may already have one

```
$ ssh -T git@github.com
Hi andyjjrt! You've successfully authenticated, but GitHub does not provide shell access.
```

- HTTPS: Managing your personal access tokens

EX01: Github First Contribution

- Follow the instructions: First Contributions

- In your PR, please leave your student ID in the comment.

- Copy the PR link, and submit ex01

Thanks for listening