# Homework 01. Version control with Bitbucket

NGUYEN Thi Thu Trang, trangntt@soict.hust.edu.vn

## Step 1.  Preparing environment

- Install IDE e.g. Eclipse or Netbean
- Install Git (and/or Source Tree, eGit for Eclipse…)

## Step 2.  Starting with Bitbucket

- Each member creates an account in bitbucket.org
- One member creates a repository naming "YourFacebookGroup-YourGroupNumber", for example TKXDPM.20181-04; then adds all your member accounts to that repository, plus the account "trangntt-student".

## Step 3.  Working

- Create a folder VersionControl to the repository of your group
- Do the following tasks in group using Git and Bitbucket for version control. Assume that your members is A, B, C and D. Each member can do only your assignment, corresponding to A, B, C and D in the following descriptions. For example, if your team only has 3 members, you only need to do for (A), (B) and (C), the remain tasks for bonus scores (remember to give the real assignment in the readme.md file).
    - ✓ **DateUtil** class provides following static methods:
        - o `boolean checkDate(int day, int month, in year)`: check if the input is valid or not (A)
        - o `int calculateAge(int year)`: return the age of the person having the birthYear (B)
            - using `java.util.Date` to get the current date
    - ✓ **NumberUtil** class provides following static methods:
        - o check if an integer is a prime number or a composite (C)
            - a prime number: a natural number greater than 1 that has no positive divisors other than 1 and itself
            - a composite: a natural number greater than 1 that is not a prime number is called a composite number
        - o check if an integer is a square number (D, if there is no D => task of A)
            - a square number: the number is a square of another number
        - o check if an integer is a perfect number (E, if there is no E => task of B)
            - a perfect number: a positive integer that is equal to the sum of its proper positive divisors, that is, the sum of its positive divisors excluding the number itself.
    - ✓ **HelloWorld** class
        - o Ask a user to enter his/her name and birthday (C)
        - o If the birthday is not a valid date, ask her again until it is (C)

- use `checkDate()` method of the class `DateUtil`
    - Say hello to that person and display his/her age (D, if there is no D => task of A)
        - use `calculateAge()` method of the class `DateUtil`
- **FirstNumberApp** class
    - Ask user to enter an integer from keyboard, if not ask her/him to enter again until valid (B)
    - Use `NumberUtil` class
        - Display if the number is a prime or composite (D, if there is no D => task of B)
        - Display if the number is a square number (C)
        - Display if the number is a perfect number (D, if there is no D => task of A)
- **readme.md:** You write something to describe the lab, tasks of each member. This file should be modified by all the members in your group.

- Note that you need to practice following actions during your team working with Eclipse and Bitbucket
    - Create Team (same as the repository)
    - Create Branch for each member in your group
    - Pull changes from a remote repository
    - Create a branch and make change
    - Commit, merge your branch
    - Push your change to Bitbucket
    - Edit an already exist file in the repository (e.g. readme.md)
    - Difference between branch and fork?