CPP Assignment #5

Practice abstract class and virtual function in OO design. Learn how to use CVS(version control) in project development.

1. Review Lists have already implemented in Assignment #4. Find some common interfaces in them, abstract these interfaces into a List abstract class. Provide three concrete subclass to implement single-linked list,double-linked list, sorted double-linked list.

2. Apply CVS in project development.

    1) Create a CVS repository in CVS server.

    I. Install cvs and ssh program in you computer (Normally your linux already have them) .
        Fedora: yum install cvs openssh
        Ubuntu: apt-get install cvs openssh
    II. create a dir in your home dir as CVS repository
    example: mkdir /home/bbt/cvsroot
    III. export CVSROOT environment variable
    example: export CVSROOT=/home/bbt/cvsroot
    IV. create CVS repository
    example: cd /home/bbt/cvsroot
        cvs init

    2) Add an empty project to the repository (you can do it at any computer, for other computers refer to step 5)

    mkdir /home/bbt/list
    cd list
    cvs import -m “ceate a new list project” list list start

    3) Check out this project in other directory.

    mkdir -p /home/bbt/project
    cd /home/bbt/project
    cvs checkout list

    4) Add a file to the project

cd /home/bbt/project/list
touch list.c
cvs add list.c
cvs commit

5) Check out project in other computer with ssh connection, and start to work on that computer.

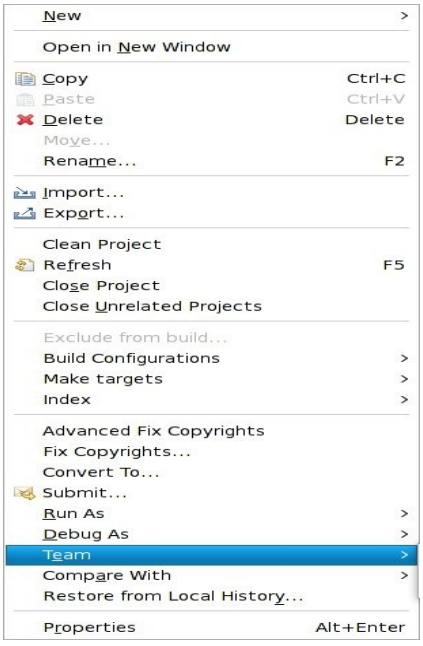
export CVSROOT=:extssh:bbt@bbtcollege.com:/home/bbt/cvsroot
cvs checkout list
vi list.c <----- do some modification
cvs commit

6) check other people's update in different computer

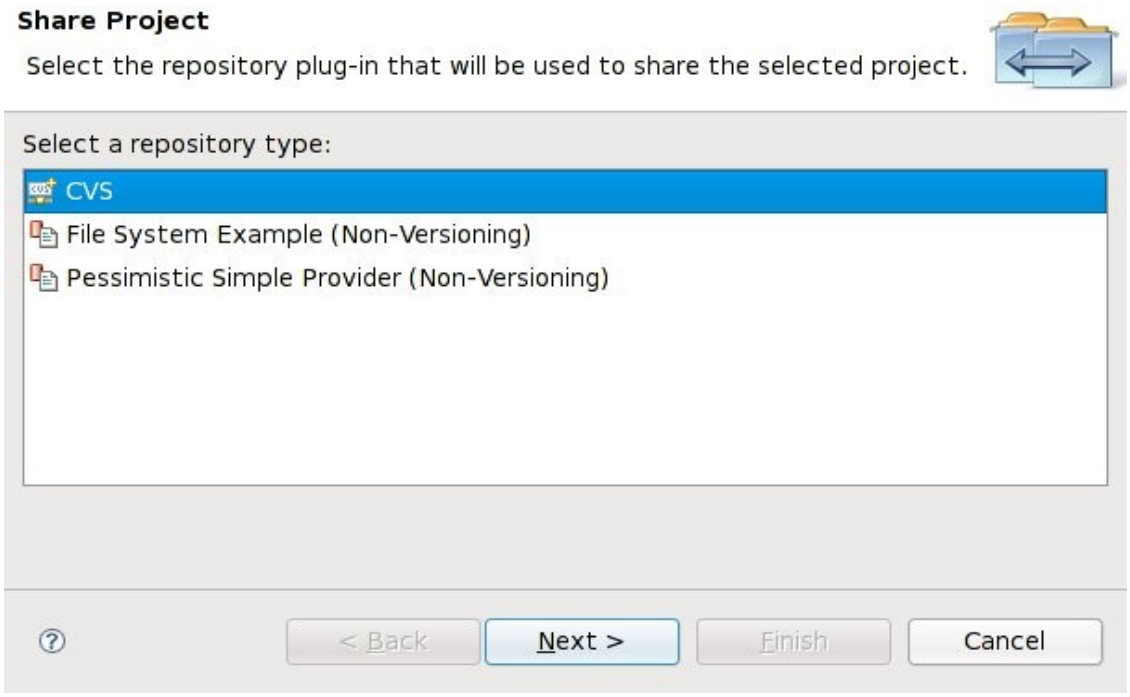
export CVSROOT=:extssh:bbt@bbtcollege.com:/home/bbt/cvsroot
cvs update <--- you did the checkout already, then use update.
vi list.c
cvs commit

7) Apply CVS in eclipse

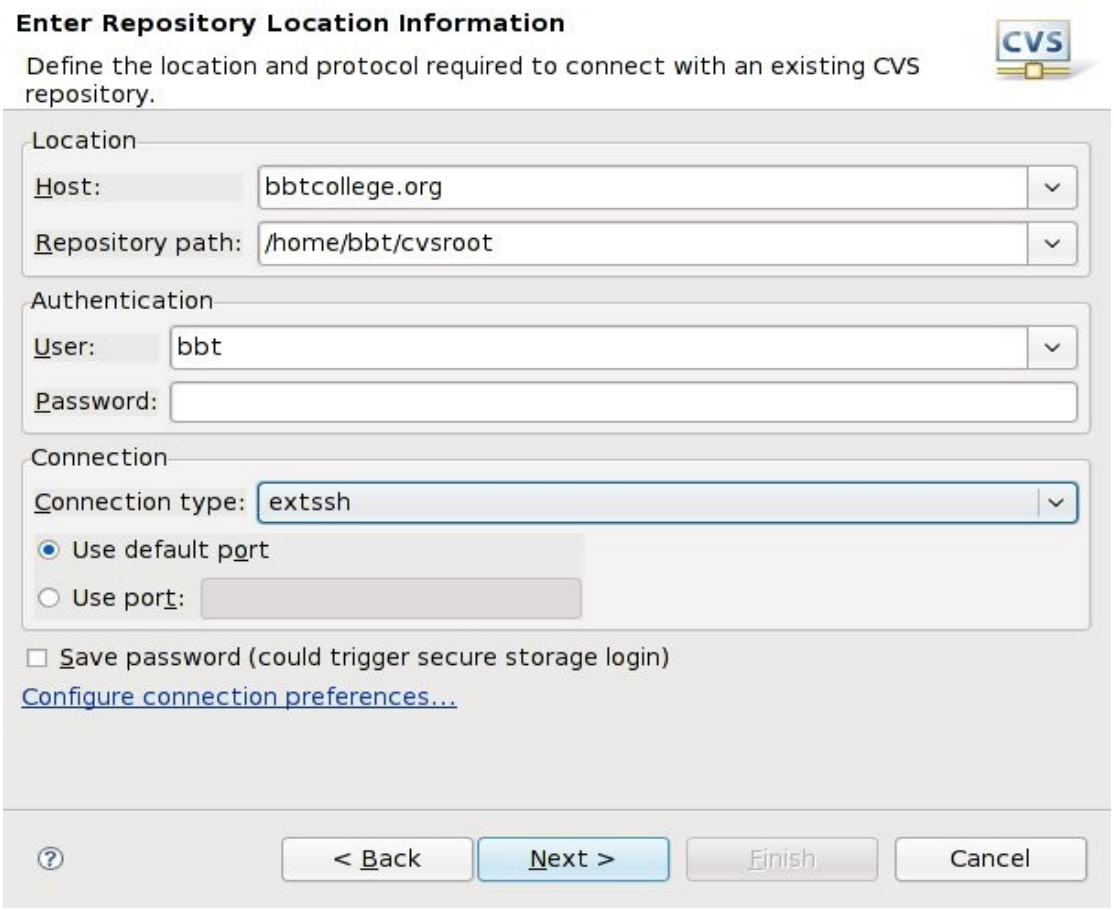
I. select **team/share object** in the project menu



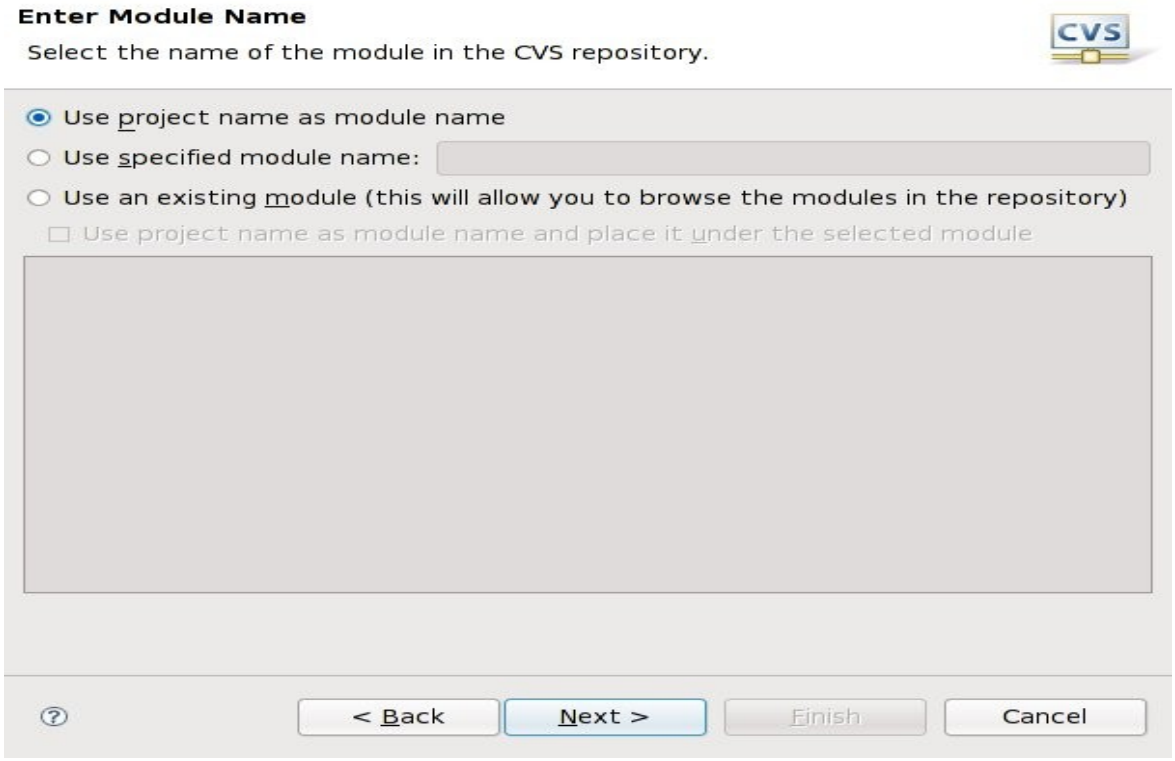
II. Select CVS in Share Project.



III. Input host/path,connection type: extssh and user and password



IV. Select project in the repository



V. **Team** submenu should look like this now. They are CVS command