Laboratory 5: ArgoUML

Name   :   _____

Student Number   :   _____

Laboratory Time   :   _____

Objectives

- Create a Use Case Diagram in ArgoUML
- Create a Class Diagram in Argo UML
- Check in ArgoUML project in CVS using Eclipse

Preamble

ArgoUML is an open source tool for drawing UML diagrams. The Use Case and Class diagrams are the most widely used types of diagram from the UML family. This laboratory is a warm-up for both UML and ArgoUML. We'll be discussing UML further in class and you'll be using ArgoUML for Assignment 2.

Grading Checklist

By the end of the day (Thursday July 17), you need to submit files to the Lab 5 dropbox. The checkboxes below itemize the files you need to submit and their content.

- ☐ Use Case Diagram (exported as a .png graphic file)
- ☐ UML Class Diagram (exported as a .png graphic file)
- ○ Make sure the UML Class Diagram contains the following:
    - ☐ Multiplicities
    - ☐ Attribute and operation on Washer class
    - ☐ New sub-class
    - ☐ Comment
    - ☐ Composition relation added to UML class diagram
- ☐ Screenshot of having checked in the ArgoUML project in CVS using Eclipse
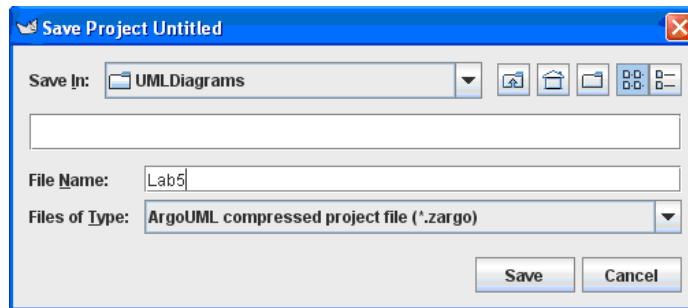
Instructions for the Laboratory

Task 1: Create a UML Use Case Diagram

For this task, you will create a UML Use Case Diagram using ArgoUML. It will be based on the requirements provided to you.

   a) Create a Directory called "UMLDiagrams" in your H directory.
   b) Start ArgoUML and create a new project.
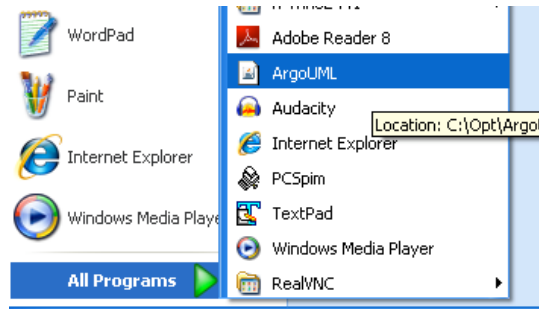
   c) Save your project as Lab5.zargo in H:\UMLDiagrams

   d) Create the UML Use Case Diagram called "Use Case Diagram – Electronics" for a system to buy electronics online. Customers, Delivery Men, and Administrators of the System will use the system. They can perform the following actions in the system:
   Customer:
   • Add electronics to shopping cart (requires the user to log in)
   • Remove electronics from shopping cart (requires the user to log in)
   • Check out shopping cart (requires the user to log in)
   • Review contents of shopping cart (requires the user to log in)
   • Search electronics by Name, Brand, and Category (Some examples of categories are: Digital Cameras, MP3 Players, DVD Players)
   Delivery Men:
   • Check online orders
   • Change the status of the order to delivered
   Administrator:
   • Add electronics
   • Update inventory of electronics

Note: Use the "include" and "extend" relationships as needed. The multiplicity in all cases can be 0..*

Task 2: Create a UML Class Diagram

For this task, you will create a UML Class Diagram called "Class Diagram – Electronics" using ArgoUML. It will be based on a sketch provided to you and you will have to add details.

a) Turn the hand-drawn sketch of electronics and owners into a UML class diagram in ArgoUML.
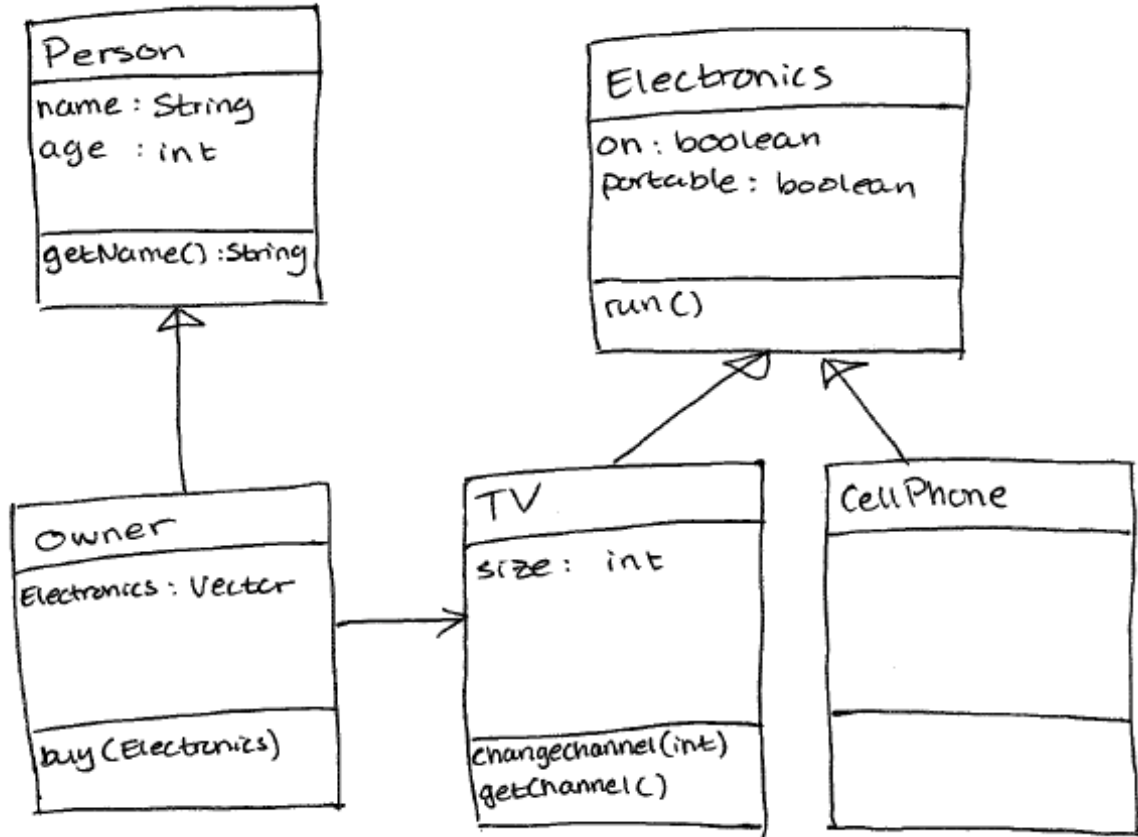
Task 3: Add Details to the Diagram

a) Add multiplicities to the association between Owner and TV.
b) Add one attribute and one operation to the CellPhone class. (These additions should make sense for a cell phone.)
c) Add a sub-class to the Electronics class.
d) Add a comment to the diagram with your name and today's date.
e) Add a Port class that is related to the TV class using a Composition relation. This class must have "name", "position", and "used" Attributes. Add appropriate types for these Attributes.
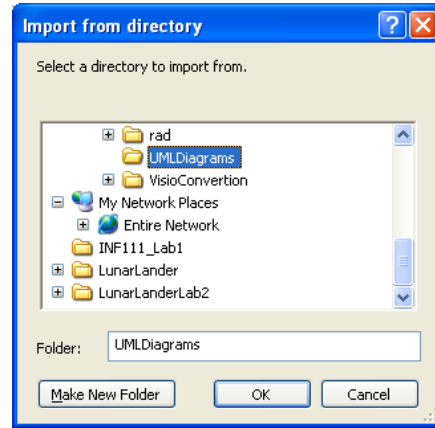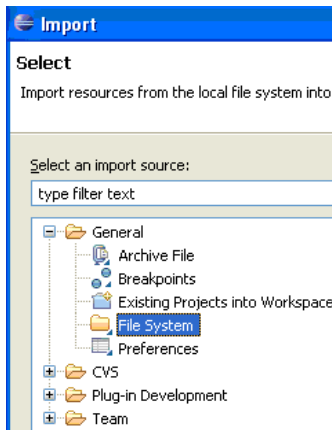
Task 4: Check in ArgoUML project in CVS using Eclipse

Import the ArgoUML model.
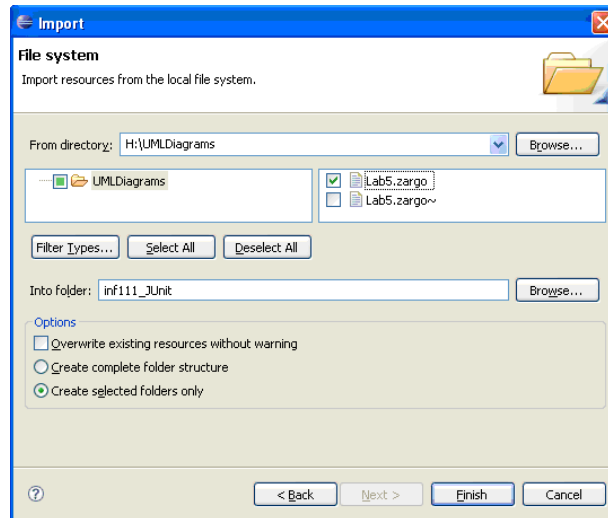 a) Open Eclipse and go to the Java Perspective (Window -> Open Perspective -> Java)
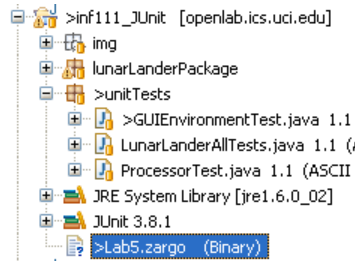 b) Using the Package Explorer, select the project you committed in CVS the last lab.
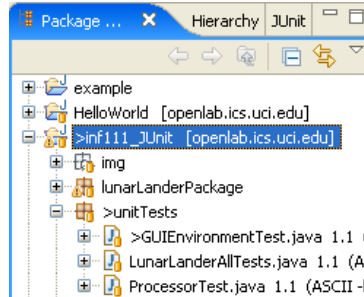
  c) Go to File -> Import and select File System. Click Next. Browse the directory where you saved the ArgoUML file (H:\UMLDiagrams) and click OK.

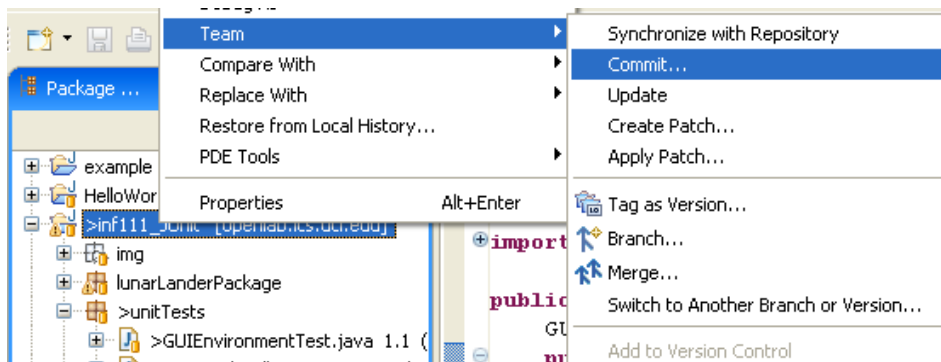 d) Select the Lab5.zargo file and click Finish.

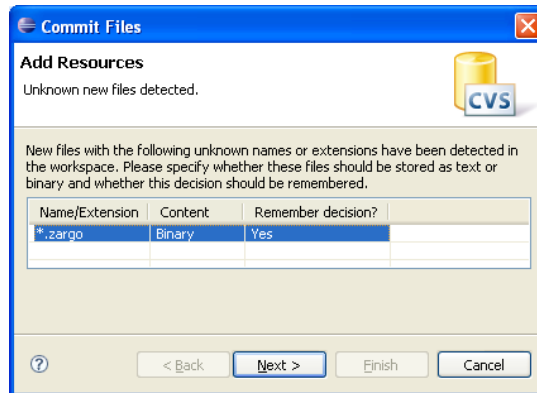e) You will see the file added to your project.

Commit the ArgoUML diagram in CVS.

f) Select the project in the Package Explorer. Right click on it and select Team -> Commit

g) In the "Add resource" Window, click Next. Enter the commit comment "Adding Use Case and Class Diagrams in ArgoUML". Click Finish. If you are prompted for your password, enter it.

h) Go to Window -> Open Perspective -> Other (CVS Repository Exploring). Select your repository in the CVS Repositories view. Right click on it and select Refresh View. You will see the file Lab5.zargo has been included in the repository.
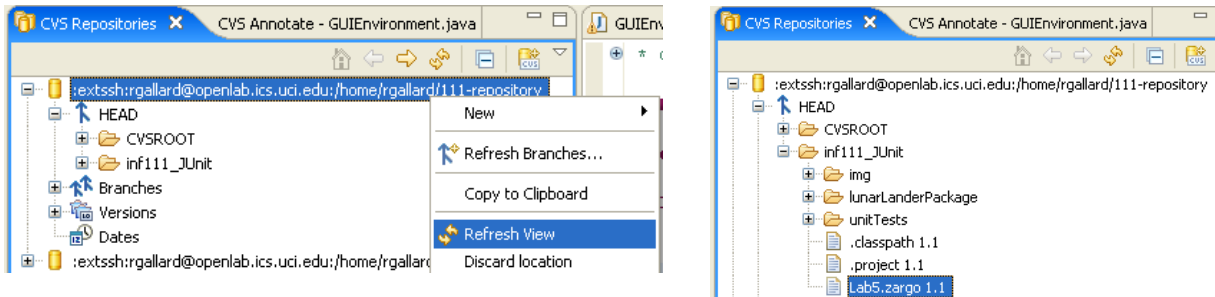
i) Select the file Lab5.zargo, right click and select Show History. You will see the history of the file.