INF 111 / CSE 121

Laboratory 6: Package and Sequence Diagrams using ArgoUML

Name	:	
Student Number	:	
Laboratory Time	:	

Objectives

- Add Packages to a Class Diagram in ArgoUML
- Create a Sequence Diagram in ArgoUML
- Create a new baseline in CVS by using tags

Preamble

In the last lab we learned how to create Use Case Diagrams and Class Diagrams. In this lab, we will learn how to create Sequence Diagrams and Package Diagrams using ArgoUML. We will be discussing these diagrams in class and discussion, and you will be using them for Assignment 3.

Grading Checklist

By the end of the laboratory session, you need to demonstrate to the TA that you can do the following tasks. The TA will check off the items below that you have completed and collect this cover page from you.

- □ Package Diagram
- □ Initial Sequence Diagram (Steps 1-6)
- □ Completed Sequence Diagram
- □ Baseline in CVS using tags

TA Initials: _____

Instructions for the Laboratory

Task 0: Familiarize with the Case Study

We will work on a system to buy DVDs online. In the last lab, we created a Use Case Diagram for this system.

Customers, Delivery Men, and Administrators will use the system. They can perform the following actions in the system:

Customer:

- Add DVD to shopping cart (requires the user to log in)
- Remove DVD 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 DVDs by Title and Category (Some examples of categories are: Series, Movies, Music)

Delivery Man:

- Check online orders
- Change the status of the order to delivered
- Administrator:
 - Add DVD
 - Update inventory of DVDs

Task 1: Add Packages to a Class Diagram in ArgoUML

For this task, you will add Packages to the UML Class Diagram for the DVD Online Store provided to you.

- a) Make sure you have the directory "UMLDiagrams" in your H directory. If not, create it.
- project Lab6.zargo b) Download the Argo from the instructor's web page (http://www.ics.uci.edu/~michele/INF111/Informatics.html) and save it in the H:\UMLDiagrams directory.
- c) Start ArgoUML and open the project Lab6.zargo that you just downloaded.



d) Select the Class Diagram and create a Package called Products.

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e) Resize the Package you just created to make it bigger than the DVD class. Select the DVD class and drag and drop it inside the Products package.



f) Create two packages more and organize the classes as following:

Package: Model

Classes:

- Person
- Administrator
- Delivery Man
- Customer
- Order

Package: ShoppingCart

Classes:

- ShoppingCart
- ItemPerLine
- g) As a result, you should have a diagram similar to the following one:



Note: The Package Diagrams can also be represented by Packages only without showing the classes inside them.

Task 2: Create a Sequence Diagram in ArgoUML

For this task, you will create a UML Sequence Diagram for the Use Case "Check out shopping cart" using ArgoUML. It will be based on the Use Case description provided below:

USE CASE 3	Check	out shopping cart								
Goal in Context	Check	out the shopping cart, enter the shipping and payment								
	inform	information and create the order								
Preconditions	The cu	stomer is registered in the system and the user is logged								
	in									
Success End Condition	The or	der is placed								
Failed End Condition	The or	der is not placed								
Primary, secondary Actors	Custon	ner								
	Bank S	ystem								
Trigger	The Customer presses the "Check out " button									
DESCRIPTION	Step	Action								
	1	The Customer presses the "Check out" button								
	2	The system shows the contents of the shopping cart and asks for the Shipping Address								
	3	The Customer enters the Shipping Address								
	4	The system asks for credit card information								
	5	The Customer enters credit card information								
	6	The system sends the payment information to the Bank system								
	7	The Bank system returns transaction OK								
	8	The System creates the Order								
	9	The System sends a notification to the Deliver man								
	10	The System shows the Confirmation of Place Order page								
EXTENSIONS	Step Branching Action									
	-									
SUB-VARIATIONS		Branching Action								
	7	If the Bank system returns transaction NO OK, the system should show an Error Page explaining the reason of the failure.								

a) Create the Sequence Diagram in ArgoUML. Go to Create -> New Sequence Diagram



b) Change the name of the Collaboration created from "unattachedCollaboration" to "Check out Shopping Cart". Double click in Sequence Diagram 1.



c) Create a New Classifier Role and change its name to "Customer."

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	 ClassifierRole 《 一 《 》 面 Name: Customer Namespace: 译heck out Shoppin Multiplicity: 1 	g Cart V (

- d) Create classifier roles for "ShoppingCart," "Order," "Bank System," and "Delivery man."
- e) Create a New Call Action. Drag the mouse from Customer to Shopping Cart. Rename the action "1: Presses Check Out button."

▶		Customer:	· · · · · · · · · · ·	ShoppingCart:	1
New Call Action					
			1: Presses check oùt button	As Dia	
	ItoDo Ito → Message Name: 1: Pre	em A Propertie	s Documentation	▲ Presentation	Source Activato Action

f) The Sequence Diagram for the first 6 steps in the Main Scenario of the Extended Use Case Format will look similar to the following diagram:

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· · · · ·		3: enters shipping address						- 1						· 1							de.		
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	- · · ·	Acks for credit car information											• •								1		
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· · · · ·								- 1													de.		
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· · · · ·						6:	Sends	payn	ent inform	atio	n' '			. 1							1		
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Task 3: Complete all the steps in the Sequence Diagram

a) Following the steps indicated in the Extended Format of the Use Case provided in the previous task, complete the steps 7-10 of the Main Scenario. Make sure to include a "Return Action" in step 7.

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Task 4: Create a new baseline in CVS by using tags

Import the ArgoUML model and commit the project

- 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 labs.



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.

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jelect an import source: type filter text	rad <u>UMLDiagrams</u> WisioConvertion YisioConvertion Wy Network Places
General General General General General General General Existing Projects into Workspace	Control Contro Control Control Control Control Control Control Control Control Co
File System File System Preferences CVS Poly-in Development CVS	Folder: UMLDiagrams Make New Folder OK

- d) Select the Lab6.zargo file and click Finish. You will see the file added to your project.
- e) Select the project in the Package Explorer. Right click on it and select Team -> Commit

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	Compare With		۲	Commit
📕 Package	Replace With		×	Update
	Restore from Local History			Create Patch
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f) In the "Add resource" Window, click Next. Enter the commit comment "Adding Package and Sequence Diagrams in ArgoUML". Click Finish. If you are prompted for your password, enter it.

🖨 Commit Files			
Add Resources Unknown new files d	etected.		CVS
New files with the fo the workspace. Plea binary and whether	llowing unkno se specify wh this decision s Content	wn names or extensions have been ether these files should be stored a hould be remembered.	detected in s text or
*.zargo	Binary	Yes	

Create a new baseline in CVS by using tags.

g) Go to Window -> Open Perspective -> Other (CVS Repository Exploring). Select your project in the CVS Repositories view. Right click on it and select Tag as Version. Enter the version name "Release1" and press OK.

🔞 CVS Repositories 🖾 😕 CVS Annotate 📃 🗌	😝 🔿 🔿 Tag Resources
	Please enter a version tag: Release 1
Check Out Check Out Check Out	Move tag if it already exists
Tag with Existing	⑦ Cancel Details >> OK

h) Open the Versions folder, open the inf111_JUnit (project name) folder and you will see the folder for Release1.

