# California State Polytechnic University, Pomona
## CIS Department
## Intermediate Java Programming for Business
## Program I (150 points)

I.    <u>Due</u>

See class schedule for due date. The written part is due at the beginning of class, the electronic part has to be sent to the instructor using Blackboard no later than 2:10PM on the due day.

II.    <u>Objectives</u>

1. Review concepts from previous Java Courses
2. JOptionPane
3. Loops
4. Arrays
5. Classes
6. Try/Catch Validation
7. Static / Class variables
8. Inheritance

III.    <u>References</u>

1. Ch. 1 to 5
2. Ch. 10, 13
3. Ch. 6
4. Ch. 6 , 7
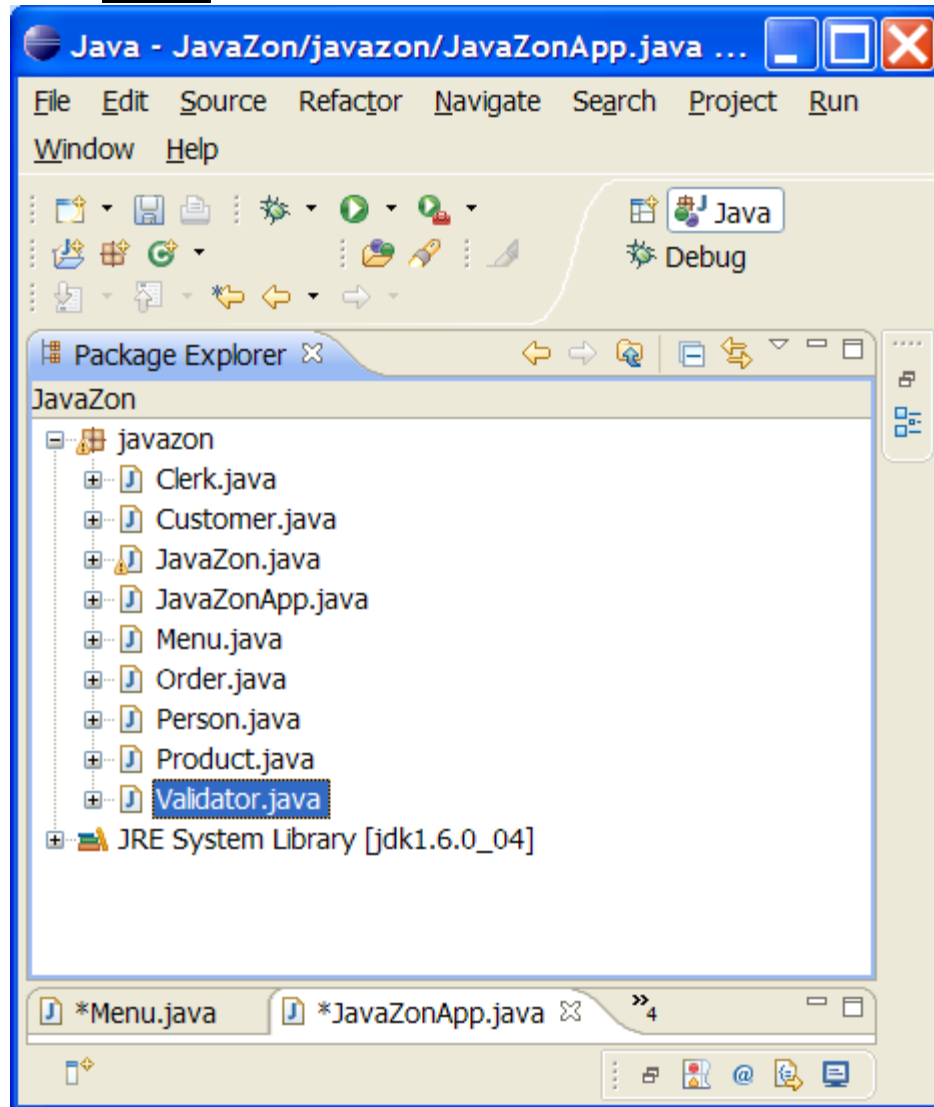5. Class Powerpoints & Examples

IV.    <u>Software Required</u>

1. Eclipse
2. Blackboard.

V.    <u>Assignment</u>

1. You are to write a simple java program that accepts input from the user, perform some calculations, and then generates output. The program simulates placing an order at a store.
   a. Prompt for customer information
   b. Prompt for a product
   c. Prompt for a product quantity
   d. Prompt user if they want to add additional products
   e. After all products and their quantities have been entered display a receipt

2. Use a package in your project, the package name should be xxxprojectname. xxx is your initials taken from the first three characters of your Cal Poly email address.

3. Read in the following from the JOptionPane input window:
   a. Customer First Name
   b. Customer Last Name
   c. Customer Address
   d. Customer City
   e. Customer State
   f. Customer Zip
   g. Customer Phone Number
   h. Customer MemberShip Number

4. Select a product from the Menu Screen

5. Enter a quantity using JOptionPane input window

6. Prompt to select more products & quantities

7. Display a summary receipt

8. Validation
   a. First Name, Last Name, Address, City are not blank
   b. State is not blank and is only 2 characters
   c. Zip is not blank and is 5 digits (5 numbers no characters)
   d. The phone number of the customer is not blank and is 10 digits (10 numbers no characters)
   e. Customer Membership number is not blank and has 2 characters and 4 numbers
   f. Product quantity is an integer between 1 and 10

9. Print out the test results.

10. Then print the Java class.

11. Then you are to export the program into a zip file containing your *.java (source) files and *.class (byte code) files. Name the zip file **xxxprogram1_yy.** zip. xxx is your initials taken from the first three characters of your Cal Poly email address. yy is the revision number of your project.

12. Lastly you are to upload the file to Blackboard's assignment section

## VI.    CLASSES



| CLERK (inherits Person) | Holds information about clerk processing the order |
|---|---|
| CUSTOMER (inherits Person) | Holds customer information |
| JAVAZON | Hold information about the store, contains orders |
| JAVAZONAPP | Controller, collects information from user, display result |
| MENU | Holds information about the menu consists of products |
| ORDER | Holds information about order, contains products |
| PERSON | Parent class holds information about person |
| PRODUCT | Class to hold product information |
| VALIDATOR | Class to perform validation |

## VII.    Deliverables

1. **Electronic**:

   Your jar-file must be transferred via blackboard to your instructor. The jar-file must be sent by the beginning of class.  Make sure you turn-in whatever you have on time to get partial credit**.** (Do not wait until the last minute to test file upload to blackboard).  The clock on blackboard site is the official clock. The latest revision of the project will be considered your final revision.

2. **Written (Assembled in THIS order)**:

   1. Cover page supplied at the end of this assignment
   2. Printout of the screen inputs (**USE INPUT I PROVIDED**)
   3. Printout of the screen outputs
   4. Class Diagram
   5. Printout of the source code

## VIII.    Additional Info

1. **Test data to use when testing your program**

| ORDER | FNAME | LNAME | STREET | CITY | STATE | ZIP | PHONE | MEMBERSHIP |
|---|---|---|---|---|---|---|---|---|
| 1 | Smith | Burns | 222 Main Street | Ontario | CA | 98765 | 9098889999 | MB1111 |
| | **PRODUCT** | **QTY** | | | | | | |
| | Java | 2 | | | | | | |
| ORDER | FNAME | LNAME | STREET | CITY | STATE | ZIP | PHONE | MEMBERSHIP |
| 2 | Selma | | 467 South Main | Covina | CAA | 9098A | 909221111 | MBA222 |
| **FIX** | | **Bouvier** | | | **CA** | 90987 | **9092221111** | **MB2222** |
| | **PRODUCT** | **QTY** | | | | | | |
| | VB | 1.1 | | | | | | |
| **FIX** | | **1** | | | | | | |
| | TOP 10 | 2 | | | | | | |
| ORDER | FNAME | LNAME | STREET | CITY | STATE | ZIP | PHONE | MEMBERSHIP |
| 3 | Mann | Otto | 523 Temple | Pomona | CA | 9813 | 909555666A | MB3333 |
| **FIX** | | | | | | **98123** | **9095556666** | |
| | **PRODUCT** | **QTY** | | | | | | |
| | Java | 1 | | | | | | |
| | PHP | A | | | | | | |
| **FIX** | | **3** | | | | | | |
| | Halo | 2 | | | | | | |

2. **Test Run Example**

**Input** — Enter First Name
SMITH
[OK] [Cancel]

**Input** — Enter Last Name
BURNS
[OK] [Cancel]

**Input** — Enter Street
222 MAIN STREET
[OK] [Cancel]

**Input** — Enter City
ONTARIO
[OK] [Cancel]

**Input** — Enter State
CA
[OK] [Cancel]

**Input** — Enter Zip
98765
[OK] [Cancel]

**Input** — Enter Phone
9098889999
[OK] [Cancel]

**Input** — Enter Membership
MB1111
[OK] [Cancel]

**Menu Items** — Select an Option
[Java] [VB] [PHP] [TOP 10] [TOP 20] [TOP 100] [Halo 1] [Halo 2] [Halo 3]

**Input** — Enter Quantity
2
[OK] [Cancel]

**User Selection** — Enter More Products?
[Yes] [No]

| SINGLE ITEM ORDER FORMAT | MULTIPLE ITEMS ORDER FORMAT |
|---|---|

**SINGLE ITEM ORDER FORMAT**

Message

(i)  JAVAZON WHOLESALE STORE

90404 CENTRAL AVE
MONTCLAIR, CA, 91763
(909)345-9876

CASHIER @ REGISTER
Lisa Simpson @ 3

CUSTOMER INFO
Member ID: MB1111
Name: SMITH BURNS
Phone: 9098889999

Address
222 MAIN STREET
ONTARIO, CA, 98765

NUMBER OF ITEMS SOLD = 2

2 @ $12.99 = $25.98
Java

TOTALS
Subtotal: $25.98
Tax: $2.14
Total: $28.12

[ OK ]

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**MULTIPLE ITEMS ORDER FORMAT**

Message

(i)  JAVAZON WHOLESALE STORE

90404 CENTRAL AVE
MONTCLAIR, CA, 91763
(909)345-9876

CASHIER @ REGISTER
Homer Simpson @ 1

CUSTOMER INFO
Member ID: MB1111
Name: SMITH BURNS
Phone: 9098889999

Address
222 MAIN STREET
ONTARIO, CA, 98765

NUMBER OF ITEMS SOLD = 5

2 @ $12.99 = $25.98
Java

3 @ $40.99 = $122.97
Halo 1

TOTALS
Subtotal: $148.95
Tax: $12.29
Total: $161.24

[ OK ]

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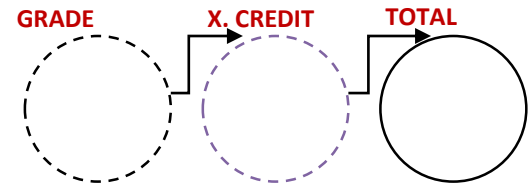## CIS Department

## Intermediate Java Programming for Business

**COURSE** CIS 304  **EMAIL:** Hmouissa@cpp.edu
**INSTRUCTOR:** Hatim Mouissa  **WEBSITE:** Blackboard.csupomona.edu

*STUDENT NAME:* ---------------------------  *JAR FILE NAME:* ---------------------------

GRADE  X. CREDIT  TOTAL

## Program Number I

**Professionalism and following directions**
☐ Assignment is neatly assembled 8 1/2 by 11. (See PDF Example)
☐ Cover page with completed and signed statement of independent effort.
☐ Classes neatly printed.
☐ Screen printouts are present.
☐ Package name is correct.
☐ Jar -file name is correct.
☐ All files are present

**Diagram (NOT HAND WRITTEN)**
☐ Class Diagram (See PDF Example)

**Source Code**
☐ Program source code printout matches code sent to Blackboard.
☐ No unnecessary code / test code in the source code
☐ Code is properly commented
☐ Code uses proper naming convention and proper Indentation (formatting)
☐ Code is written efficiently and using best practices learned in class

**Electronic Run**
☐ Program asks for all inputs.
☐ All answers are present.
☐ All outputs are correct.
☐ Formatting of outputs is correct

**Professor Comments:**

I_____, attest that this project is my own work. Signature _____