

This project is worth **600 points Due on Monday April 15**  
Pick one from the following project to create complete running program with documentation

## 1. **Product Inventory Project**

Create an application which manages an inventory of products of any retail store. The items should have location, price, id, and quantity on hand. Then create an inventory class which keeps track of various products and can sum up the total quantity and the prices of all the inventory value. The admin should be able to add item, change items attribute such location, prices, ..etc. You should be able to print all info related to your inventory.

## 2. **Hotel Reservation System**

Create an application which manage all customers with their info, payment, cancellation, check in and a check out. You will also manage their travel date and room assignment maybe also meal and extra services such as TV, and Transportation Taxi wish. You may also keep track of the point system for repeating customers. Admin and users log and print all guests

### **1- A proposal of your project. Subtotal = 50 points Due Thursday Feb 15<sup>th</sup>**

One page single-spaced TYPED description of your project describing your project is due AT THE BEGINNING OF CLASS ON Thursday 2/15 it should outline which project you picked and what is your project will do as fare as features, what is needed as input and what are the outputs. Describe the data you will use such as arrays, this does not have to be a final design; you may (and probably will) make design changes. The proposal is worth 50 points.

### **2. The program must include the following 14 items 350 points.**

**Each item is worth 25 points.**

1. Wrapper classes
2. Relational (==, !=, >, >=, <, <=) and Logical Operators (&&, ||, !)
3. One or more if-then-else statements
4. One or more while/for and one enhanced loops
5. Five classes minimum (One of which MUST be abstract)
6. Interaction between all classes (interface, information hiding)
7. Inheritance hierarchy must be implemented (super, extend), ,
8. At least one interface must be implemented with student-designed classes.
9. Polymorphism must be implemented with the student designed classes.
10. Array List must be used in at least ONE student designed class and it
11. MUST be traversed through AND accessed via an Iterator.
12. Comments explaining logic and operation of program at key points
13. Meaningful variable names
14. Some kind of String manipulation methods should be used

**Mark, Highlight, or Place a box around each section of code that satisfies a requirement.**

Therefore, you should have 14 sections of boxed code that represent the 14 required sections of code. A digital of the javadocs generated for your project should be placed after the source code printout.

**Subtotal = 400 points**

4.

worth 100 points. The presentation shall have, at minimum, the following slides:

A PowerPoint presentation should be given on your assigned date. The presentation will be

Title page (your name, project name, period number, date,..etc)

Description of program operation

Demonstration of Program

UML Diagrams for each class

Use of classes/objects in project?

Elaborate on how classes represent physical objects in your program

Be prepared to justify class names, class data member names, method names)

Description of use of an inheritance hierarchy (be prepared to justify them)

Description of use of an interface (be prepared to justify them)

Description of use of polymorphism (include a code for a demo)

The use of polymorphism

Special features implemented in program - elaborate on tricks/special things

Known bugs in program

Citation of second-party code used in program (be able to explain code)

Conclusion - Summary of what you thought of writing the program

1- Difficulty level,

2- Fun level,

3- Your evaluation of the final product,

4- What you learned (be specific)

**Subtotal**

**Subtotal = 500 points**

**5- Digital File / THREE RING BINDER**

The items that should be turned in are in the following **ORDER** :

Printouts

1- Graded Proposal Scanned

2- Source Code with complete comments and 14 Items highlighted yellow color (printed in landscape mode) **Page mark and item highlighted 14 items**

3- Computer-generated UML Diagrams

4- Java Documentation blue jay generated HTML

5- PowerPoint presentation slides 6-12-18 (print 6 slides per page)

**Flash Drive attached to the binder and should includes**

- Source Code with complete comments.

- Java-docs

- Computer-generated UML Diagram

PowerPoint presentation

DO NOT INCLUDE ANY MISCELLANEOUS FILES FROM ANY OTHER CLASS ON YOUR DISKS. IF ANY OTHER FILES ARE LOCATED ON THE DISK, IT WILL RESULT IN A 50 POINT DEDUCTION.

Any deviation from these guidelines will result in a 100-point deduction in points.

### **Point Distribution**

#### **Project Proposal I 50 points**

**/Requirements 1-14 350 points (disk and printout is required for full credit) PowerPoint Presentation 100 points (disk and printout is required for full credit) Progress sheet 50 points (weekly check on your project will be provided by me)**

**Binder is 50 point for Neatness, Follow Instruction and , mark the 14 items with high lighter and number them respectively “ Take advantage it is a sweet deal ”**

**Total points 600 points**

Pointers for your final project:

- START EARLY!! Don't wait until the last week to begin your project!!
- Make sure you have all printouts on the presentation day!!
- Make sure you have MANY copies of your files with PowerPoint presentation, source code and executable file (you can never have too many copies).
- Test your program on the presentation computer before the presentation date.
- Use of block comments ( /\* \*/) for commenting large sections of code.
- MAKE BACKUPS OF YOUR WORK!!
- And, of course, & HAVE FUN :-)!!

Project proposal Grading:					
	Standard	Acceptable	Exemplary	Self Mark:	TA Mark:
<b>Context</b>					
Can an informed reader make sense of the project?	Confused	Logical, straight-forward	Clear, clean, intriguing		/ 5
<b>Statement and origin of the problem</b>					
Is the focus of the project clear?	Not really	Yes	Significance and implications explained		/ 5
Did the researcher formulate a workable plan (set realistic goals)?	No. Goals & project don't match	Fairly close.	Seems to have covered all the angles.		/ 5
<b>Methodology</b>					
Was researcher able to gather the necessary tools to begin useful work (organized)?	- spent most of his/her time hunting for tools or creating them	Mostly.	Yes. Chose reasonable alternatives when tools were unavailable.		/ 5
Are data collection methods described? Such as Variable, arrays, data. Polymorphism's	No.	Mostly.	Yes.		/ 5
Did researcher make effective use of resources?	No.	For the most part.	Yes.		/ 5
Is data presented and is there an initial analysis?	No data. No analysis.	Reasonably well.	Yes.		/ 5
Was researcher able to explain (justify) deviations from the original proposal?	No.	Yes.	Very convincing. (OR) No deviation was necessary.		/ 5
<b>Implications</b>					
Were judgments justified?	No.	For the most part.	Yes.		/ 5
<b>Findings</b>					
What did the researcher learn from the project and the work itself?	Apparently nothing.	Able to articulate some "learnings".	Yes.		/ 5
<b>Project Approach and Outcomes Total:</b>					<b>/ 50</b>

Your Name : \_\_\_\_\_ Period \_\_\_\_\_

Your Project : \_\_\_\_\_

## Computer Science AP project Progress Report 2020

This sheet is intended to help you stay on track to complete your project on time. It is a tool to insure that you are doing your project. This will earn you 50 points by showing your progress for the next 5 weeks. Do not show the same work every week. I am expecting you to finish 20% of your project each week.

<b>1</b> 2/23	<b>E      G      NI      WB</b>  Note	1-2-3-4-5-6-7-8-9-10
<b>2</b> 3/1	<b>E      G      NI      WB</b>  Note	1-2-3-4-5-6-7-8-9-10
<b>3</b> 3/8	<b>E      G      NI      WB</b>  Note	1-2-3-4-5-6-7-8-9-10
<b>4</b> 3/15	<b>E      G      NI      WB</b>  Note	1-2-3-4-5-6-7-8-9-10
<b>5</b> 3/22	<b>E      G      NI      WB</b>  Note	1-2-3-4-5-6-7-8-9-10
<b>Due date</b> <b>4/15</b>	The last day to submit your complete project, your Binder should include flash DR, Code, java doc, power point, proposal, and progress sheet. You will present your project after the AP exam  <b>Absolutely: No Extension , No Exception</b>	Total =

**E**= Excellent      **G** = Good      **NI** = Need Improvement      **WB** = Way behind

## Project 2024 grading 600 points

<b>50</b>	<b>Proposal #1</b>	
<b>50</b>	<b>Progress sheet</b>	
<b>50</b>	<b>Binder/ Digital File (P– G - E)</b> <ul style="list-style-type: none"> <li>• <b>Organization</b></li> <li>• <b>Clarity</b></li> <li>• <b>Followed instructions</b></li> <li>• <b>Files, Folder, and all papers are included</b></li> <li>• <b>Neatness &amp; Completeness</b></li> </ul>	
<b>350</b>	<b>14 items. Each item is worth 25 points</b> <div style="border: 1px solid red; display: inline-block; padding: 2px;">1 2 3 4 5 6 7 8 9 10 11 12 13 14</div>	
<b>50</b>	<b>Level of Difficulties and extra features</b>	
<b>100</b>	<ul style="list-style-type: none"> <li>• <b>Presentation quality (E – G - P)</b></li> <li>• <b>Is the project working (E – G - P)</b></li> <li>• <b>Over come the difficulties (E – G - P)</b></li> <li>• <b>Originality of code &amp; work (E – G - P)</b></li> </ul> <p style="text-align: center; font-size: small;">P=poor G=Good E=Excellent</p>	
<b>600</b>	<b>Total</b>  <b>&gt;540=A</b> <b>&gt;480=B</b> <b>&gt;420=C</b>	