This project is worth **600 points Due on April 17**
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. 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 inventory value with, number of total items in the inventory. You should be able to print all info related to your inventory.

2. Student Grade Book Application
   Create an application that keep track of students (with a student class that has their name, average, and scores) in a class and their grades. Assign their scores on tests and assignments to the students and figure out their average and grade for the class. For added complexity put the students on a bell curve.

3- Airline Tickets Reservation System
   Create an application which manage all customers with their info, payment and date of travel. You will also manage their travel date and seats assignment maybe also meal wish. You may also keep track of the flight date and number with the assigned passengers.

1- A proposal of your project. Subtotal = 50 points Due Feb 28th

One page single-spaced TYPED description of your project describing your project is due AT THE BEGINNING OF CLASS ON 2/28. 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. 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 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 (upper case, count char..)

Mark, Highlight, or Place a box around each section of code that satisfies a requirement. Therefore, you should have 13 sections of boxed code that represent the 14 required sections of code. A hardcopy of the javadocs generated for your project should be placed after the source code printout.

Subtotal = 400 points

4. A PowerPoint presentation should be given on your assigned date. The presentation will be worth 100 points. The presentation shall have, at minimum, the following slides:

- Title page (name, class, 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 class interaction (talk about each class)
- 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- **THREE RING BINDER**

The items that should be turned in are as follows:

Printouts

- Graded Proposal
- Source Code with complete comments and java-docs (printed in landscape mode)
- Page mark and item highlighted 14 items
- Computer-generated UML Diagrams
- Java Documentation blue jay generated
- PowerPoint presentation slides (print 6 slides per page)

Flash Drive or CD - include

- 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 by me)
Binder is 50 point Extra Neatness and order " 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 disk 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 :-)!!

Your Name : ----------

Computer Science AP project Progress Report 2012

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.

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

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

Project 2017 grading 600 points

50	**Proposal #1**	
50	**Progress sheet**	
50	**Binder (P– O - E)** • **Organization** • **Clarity** • **Followed instructions** • **CD, Folder, and all papers are included** • **Neatness & Completeness**	
350	**14 items. Each item is worth 25 points**	
50	**Level of Difficulties and extra features**	
100	• **Presentation quality (P – O - E)** • **Is the project working (P – O - E)** • **Over come the difficulties (P – O - E)** • **Originality of code & work (P – O - E)** **P=poor O=Okay E=Excellent**	
600	**Total** **>540=A** **>480=B** **>420=C**	