CS 110 Java hw1   [Survey this entire document before you begin.]

Part I: CEMS Accounts

(Once you have checked your account and followed these instructions, you may either work in the lab or on your own machine for this homework since we do not have a formal lab this week.)

Try out your CEMS account in a Votey lab either 246,229 or 206.
Log on using your ZOO username and password.
[In order for your zoo credentials to work in a Votey lab, you must be taking a course in CEMS *and* the instructor must request computer accounts for your class.]

Look around.   Find JGrasp and open it. Then type a few words and then attempt to save the file in your "M" drive.
Note the "M" drive is the location of your personal file space for this CEMS account. It may be labeled something like "douglas on fs1(M):" where "douglas" is replaced with your own CEMS userid. You can also locate this drive through "My Computer".

Some students do not have an M drive mapped. If you cannot find your M drive, please email to help@cems.uvm.edu and let them know so it can be fixed.

If you cannot login to a computer in the lab, email the instructor so this can be addressed asap.

Part II: CS 110 Website: Checking blackboard access
(This process is the same from any computer with internet access -- whether from home or school.)

- go to http://bb.uvm.edu/ .
- Login using your ZOO login name and password.
  Select the CS 110 Intermediate Programming Java link.
- Checkout the Syllabus, the CALENDAR, Homework, How To Succeed, My Grades.
  You will need this information to answer some questions in the problem set below.

Part III - Blackboard Submission -- ****practice*****

- We will begin with a PRACTICE drop box.
  (Note that you must eventually submit **hw1.zip** to the **hw1** drop box.)
- First create a simple little text file using jgrasp.
  Type a few sentences and save a file: **practice.txt**

- On our Blackboard course page, select the **Homework** link.
  Upload the file **practice.txt** to the **HW0A practice box**.

- You have not yet "submitted" the file.
  Let's say you had not completed the assignment yet.
  You could SAVE AS DRAFT and come back to it later.
  Let's do that. Hit button SAVE AS DRAFT.
  Notice the file name is there – can you see it listed?
  At this point, you could delete it, or download it once you arrived home,
  work on it again then upload a new version….etc…until you are ready to submit the
  homework. Try out this scenario by attempting to download the file, then delete the file
  and upload it again and SAVE AS DRAFT.

- SUBMIT this file now.
  You can no longer access the file or resubmit to this drop box. (try it)

- You may use the other practice drop box to practice SAVING AS DRAFT, then
  downloading the file, changing it and deleting the old file and uploading a new version,
  etc.

Part IV: HW 1   (4 problems to be turned in for grading)

Notes :
a) Review the syllabus carefully before you SUBMIT. You may lose points for not following
those directions.   (It is also strongly advised that you play around with the practice dropboxes
first.)

b) See TA Office hours from the course menu.

c) Remember: style, style, style! Read the Handout on java style.

d) Program Comments:
    Your program should always include a comment heading with your name and a *brief*
    description of the program, and the collaborator/reference clause.

e) Follow folder/filenames pattern.

f) I/O: For this homework, <u>use GUI dialog boxes for input and output unless otherwise stated.</u>
   Use appropriate prompts and make the program user friendly.

g) These problems must be completed *with NO programmer defined functions* other than main,
and *NO programmer defined classes other than the one that matches the filename.* (We're
following the program patterns in ch 1 and 2.)

Set up folders for organizing files for this homework:

Create a folder **cs110** for your work in this class**.**
Under **cs110** create a folder **hw1**.

1. problem **questions** (create a new **folder** within **hw1** for this problem and call it
questions, then create a simple text file called **questions.txt**)

> You can type this up in notepad or textpad , or you could even use the editor under
> JGrasp as long as you don't try to run it as a program!
>
> **Make sure your name is at the top of this file.**
> <u>Copy and paste</u> these questions into your file **questions.txt** then insert the answers
> after each question. You must have questions AND answers must be **complete** and
> **correct** for full credit. You will find the answers to the questions somewhere within the
> course website on blackboard.
> It's like a scavenger hunt.
>
> >   a. As a "rule of thumb", how much homework time could one expect to spend
> >   **outside** class and lab time?
> >   b. What is the test make up policy? And the quiz make up policy?
> >   c. How many files will you submit to blackboard for each assignment?
> >   d. You can name your homework files anything that makes sense. True or
> >   False?
> >   e. Each program should be in a separate folder, even though it may have
> >   only one file.   True or False?
> >   f. May one turn in part of the assignment on time and the rest late?
> >   g. What is the late penalty for a hw marked "late" by blackboard?
> >   h. What is your grader's name? (look under blackboard "see my grades"
> >   icon)
> >   i. List at least 5 hints for success in the course provided by the instructor in
> >   the course website.
> >   j. What should you do if you miss lecture and want to know what was
> >   covered?
> >   k. What is the date of the first quiz?
> >   l. Homework may be emailed to the TA if the drop box is closed. True or
> >   False?
> >   m. How many late coupons does each student get?
> >   n. Where (specifically) are the installation instructions for putting the course
> >   software on your machine?
> >   o. Where (specifically) are the installation instructions for downloading a file
> >   from the CEMS ("M") storage to your home computer. (What software is
> >   recommended to install on your home machine for this purpose?)

2. problem **payroll**   (create a **folder** within **hw1**for this problem and call it **payroll**, program file called **Payroll.java)**

Gaddis p.97 Code Listing 2-33
Type in this program exactly as you see it
(No line numbers – they are not part of the program, but just for reference.)
Name the file **payroll.java** (following the naming pattern).
You will notice that this program doesn't work even if you type it exactly as you see it on the page. One problem is that this program class (see line 8) is called "PayrollDialog".
Java requires that the program class and the filename be exactly the same (including upper/lower case). So, change the name of the program class to "Payroll". (Why did we capitalize the first letter?)
   Correct typos until the program compiles and executes.

   NOTE1: The syllabus indicates that programs should have a comment at the top listing collaborators/references.
   So let's put a comment at the top of this program:
   "collaborators/references: none"
   (Since this was taken from the course text, we can put "none" rather than cite the Gaddis text --why? see syllabus/academic integrity).

   NOTE2: This program has `System.exit(0);` (line 47).
   Use this statement ONLY as the LAST statement in function main.
   It should *not* be used in any other place in a program(course rule until further notice)

3. **Tips**: Write a program that inputs the `subtotal` and the `gratuity_rate`, and computes the `gratuity` and the `total`. Example: If user enters 10 for subtotal and 15% for gratuity rate, the program displays $1.5 as gratuity and $11.5 as total. Once this works, format the output to show 2 places to the R of the decimal point (even if 0). Eg. $1.50 for gratuity and $11.50 for total.
Hint: See our course website under Handouts for formatting: Tax1.java

4. **WordGame**: p. 108 problem #16
Write a program that plays a word game with the user. The program should ask the user to enter the following:

name, age,   city, college, profession, type of animal, pet's name

After all entries are made, the program should display the following story inserting the user's input into the appropriate locations:

There once was a person named NAME who lived in CITY. At the age of AGE, NAME went to college at COLLEGE. NAME graduated and went to work as a PROFESSION. Then, NAME adopted a(n) ANIMAL named PETNAME. They both lived happily ever after!

Part V - Blackboard Submission -- ****HW 1*****

When you are ready to submit the hw for grading (with NO more access to it), follow these steps:

a) Upload the .zip file.
b) SAVE AS DRAFT and LOOK to see if the file is showing on the page.
   Proceed to the final step ONLY if the file name is showing.
   If the file is not showing, refresh the page (F5), or navigate away from the page and go back to it and see if the file name is showing. Don't forget to do this step because hitting submit before the file is registered on blackboard will mean your file never made it and you cannot submit again. This is your responsibility to do correctly.
c) SUBMIT