Assignment #4 – Paying Slot Machine

Prepare to work on this assignment by creating a work folder called assign4 in your w-number folder. Call your program PayingSlots#.java, where the # is whichever version you are working on at the time. You must start with version 1 (PayingSlots1.java) and get it working before moving on to version2 (PayingSlots2.java), etc.

Version 1

Start the program by asking the user for the amount of money they have to spend (their "bankroll"). This question should only be asked one time.
Each time the user spins, prompt them for the amount to put in the slot machine.
If they win, pay off 5 times the amount put in the slot machine by adding it to their bankroll.
Win or lose, subtract the amount put in the slot machine from their bankroll.
After each spin, display the amount won, and the current amount in their bankroll.
Instead of recursion, use a while loop with the existing sentinel variable (the question of if they want to play again) to cause the repetition.

When you get this version of the paying slot machine working, make sure you include the required comments (including descriptive comments for each variable in your program), and then commit it with the log message "Paying Slots version 1" (it should be named PayingSlots1.java). If everything is correct, you will earn 75 points (C level) for Assignment #4.

Additional Feature:

You can get an additional 5 points by having different payoffs for break-evens, jackpots, and super-jackpots. Break-evens should pay the same amount as put in. Jackpots pay 5 times the amount put in. Super-jackpots pay 10 times the amount put in. This feature should be included in the best version you submit to get the extra 5 points.

Version 2

Use a do-while loop to check the amount being put in the slot machine on each spin. It cannot be less than 0, and it cannot be more than their bankroll. If it is, display an error message which reminds the user to enter an amount from 0 to the amount of their bankroll, and prompt them again. For example, in a console this might look like:

How much are you putting in the slot machine? 200
Please enter an amount between 0 and 150
How much are you putting in the slot machine? -1
Please enter an amount between 0 and 150
How much are you putting in the slot machine? 151
Please enter an amount between 0 and 150
How much are you putting in the slot machine? 150

and then continue from there.

When you get this version of the paying slot machine working, make sure you include the required comments (including descriptive comments for each variable in your program), and then commit it with the log message "Paying Slots version 2" (it should be named PayingSlots2.java). If everything is correct, you will earn 85 points (B level) for Assignment #4.
Version 3

You will need to be using a graphical version of the slot machine for this. For each spinner graphic (whether a picture or just a colored rectangle), place it initially so it is just above the top of the window (use a negative Y position), then use a for-loop to move it down one pixel at a time until it is fully exposed. You can include the method call:

```java
pause(1);
```

as part of your for-loop to slow it down enough to see the motion.

When you get this version of the paying slot machine working, make sure you include the required comments (including descriptive comments for each variable in your program), and then commit it with the log message "Paying Slots version 3" (it should be named PayingSlots3.java). If everything is correct, you will earn 95 points (A level) for Assignment #4.

What to turn in

Commit versions 1 thru 3 in sequence as high as you can before the beginning of class on Monday, October 23, 2006. Remember that you may commit multiple times for each version if you wish (and it is a good idea to do so for every major change or at the end of each work session). You don't have to make it all the way up to any version beyond version 1, but of course, if you do, your grade will be higher (as long as it is correct). Remember to have fun, and get help from the instructor when you need it!