Women Who Code DC April 2016

Simple Mini Projects to Code

1. **Time converter**: take keyboard input of time 1030 PM – two inputs. Convert into military time 2230 and printout. Advanced – process data structure of lists or array as the input.
2. **Grader**: calculate points (keyboard input) into grade system:

90 < = A

80 < = B

70 < = C

60 < = D

Advanced: If you divide the points by 10 and take the reminder (1-9), calculate:

1-3 = minus (add a – to grade above and print out in results)

4-6 = do nothing

7-9 = plus (add a + to grade above and print out in results)

Note: use else if, elif. Advance: develop function for calculating reminder

1. **Dice Rolling Simulator**

This project involves writing a program that simulates rolling dice. When the program runs, it will randomly choose a number between 1 and 6. (Or whatever other integer you prefer — the number of sides on the die is up to you.) The program will print what that number is. It should then ask you if you’d like to roll again. For this project, you’ll need to set the min and max number that your dice can produce. For the average die, that means a minimum of 1 and a maximum of 6. You’ll also want a function that randomly grabs a number within that range and prints it.

*Note:* Import random in your program, use the random.randint function. Use While Loops for prompting.

1. **Area Calculator:**  
   The user will be prompted with a menu where he/she will select a shape (circle or square). Then the user will be prompted to give the appropriate information needed to solve for the area. Print out result and input submitted.

Note: Printout the menu choices, take shape selection. Use if statement.

1. **Checkout cart**: take input from user on how many widget A ($5.29), widget B ($29.33), widget C ($72.45) to purchase. Print out items bought and total cost, which includes tax at 8.25% and $3.45 shipping charge. Total cost should be money format.