IT 102: Python Assignment –
Ninja, Cowboy, Bear

Introduction

Cowboy, Ninja, Bear is a simple game that two people can play to determine a winner. Each player selects one of three poses and simultaneously reveals their selection as follows:

- Cowboy = both hands mimicking pistols, pointed at your opponent
- Ninja = both hands at about face level, hands flat and poised for a martial arts attack
- Bear = hands up, fingers curled like claws

If both players select the same attack it is a tie. If they select different attacks, then the winner is selected based on the following:

- Ninja beats Cowboy using lighting speed ninja kicks
- Cowboy beats Bear with his quick draw and perfect accuracy
- Bear beats Ninja with a strong swipe of his clawed paw

Specifications

Your program will allow a human user to play several rounds of Cowboy, Ninja, Bear with the computer. Each round of the game will have the following structure:

- The program will announce the beginning of the round and ask the user for his/her attack of choice
    - The user can enter one of the three attacks, view the rules, or quit. User input should be case in-sensitive. So “b” and “B” are equivalent.
    - If the user inputs something other than one of the valid menu options, the program should detect the invalid entry and ask the user to make another choice.
- If the user enters an attack :
    - The program will choose an attack (Cowboy, Ninja, Bear).
    - The two attacks will be compared to determine the winner (or a tie) and the results will be displayed.
    - The next round will begin, and the game will continue until the user chooses to quit.

Define the following functions. Test *each function* as you go.

1. **title()** prints the game title.

```
Cowboy, Ninja, Bear
-------------------
```

2. **options()** prints the users' options:

```
You have the following options available:
c for cowboy
n for ninja
b for bear
r for rules
q for quit
```

3. **rules()** prints the game rules, and then calls options():

```
Rules:
- Ninja beats Cowboy using lighting speed ninja kicks
- Cowboy beats Bear with his quick draw and perfect
accuracy
- Bear beats Ninja with a strong swipe of his clawed
paw

You have the following options available:
c for cowboy
n for ninja
b for bear
r for rules
q for quit
```

4. **goodbye()** prints a farewell message.

5. **printPick()** takes a parameter representing what the computer picked and displays "Computer picked…" and then either cowboy, ninja, or bear.

6. **battle()** takes a parameter representing what the user picked. Then, it implements the following logic:
    - Pick a random number 1, 2, or 3 representing the computer's pick. (Don't forget to import random!)
    - Print what the computer picked, using the printPick() function
    - Compare the computer pick to the user pick and display the appropriate result. Note: you'll either need to convert the computer pick to a letter

or the user pick to a number. It doesn't matter which you choose, although letters might be more intuitive.

The main program should:

- Call the title() function
- Call the options() function
- Prompt the user for an option. Remember that the user input needs to be case-insensitive.
    - If the user chooses "r", invoke the rules() function.
    - If the user chooses "q", invoke the goodbye() function.
    - If the user chooses "c", "b", or "n", invoke the battle() function.
    - Otherwise, display "invalid choice."

Sample output

```
>>>
Cowboy, Ninja, Bear
-------------------
You have the following options available:
c for cowboy
n for ninja
b for bear
r for rules
q for quit

Please make your selection: n
Computer picked ninja.
We tied!

Please make your selection: c
Computer picked ninja.
Ninja beats cowboy. Computer wins.

Please make your selection: C
Computer picked cowboy.
We tied!

Please make your selection: x
Invalid choice.
Please make your selection: b
Computer picked ninja.
Bear beats ninja. User wins.

Please make your selection: r

Rules:
```

```
- Ninja beats Cowboy using lighting speed ninja kicks
- Cowboy beats Bear with his quick draw and perfect accuracy
- Bear beats Ninja with a strong swipe of his clawed paw

You have the following options available:
c for cowboy
n for ninja
b for bear
r for rules
q for quit

Please make your selection: q
Goodbye! Thanks for playing.
>>>
```

Criteria

To receive a passing grade for this assignment:

1. The program must run without errors, and produce correct results.
2. The program must meet all specifications outlined above, including six functions.
3. Include a comment header with the file name, a program description, your name, and the date.
4. Include a line comment describing each function.
5. Turn in a printout of your code at the beginning of class on the due date.
6. Upload a copy of your python file to Canvas.