Intro to Python User Stores Practice

1. Write a function that takes in a list of programming languages and prompts the user for their favorite programming language. If the user’s favorite programming language exists in the list, return it and print the returned result to the console.
   1. **Algorithm**
      1. Create a list with default values/variables
      2. Ask user for input – which is their favorite (but don’t show list)
      3. Check user input against default list
         1. If there is a match return print message along with matching input
         2. If no match, don’t print
2. Write a function that takes in a minimum number and maximum number, and return a random number between the minimum and maximum range.
   1. **Algorithm**
      1. Get user input for two numbers
         1. Convert to real numbers
         2. Make sure second number is higher than first
            1. If not get another number
      2. Take numbers and get a random number between the range of both numbers
         1. Return random number
3. Write a function that takes in a word and return the reversal of that word. a. Example: “packers” will be returned as “srekcap”
   1. **Algorithm**
      1. Get word from user
      2. Take word and get individual characters
         1. Put characters in reverse order into a new variable
      3. Print new variable out
4. Write a function that prints every number from 100 to 1 (descending).
   1. If the number is divisible by 4, print “Banana” instead of the number
   2. If the number is divisible by 7, print “Flamingo” instead of the number
   3. If the number is divisible by 4 and 7, print “Flamingo -Banana!”
   4. **Algorithm**
      1. create two variables using 1 and 100 as int values
      2. loop through and print all number
         1. check for values that are divisible by 4, 7, or both
            1. print appropriate result
5. Write a function that takes in a list of numbers. Return a new list that contains only the elements that are less than 5. Print to the console the contents of the returned list. a. [1, 2, 3, 7, 8, 9, 45, 134, 43, 2, 3, 1, 6, 7, 5, 4] i. Bonus for fun: No duplicates in the new list.
   1. **Algorithm**
      1. Declare function
         1. Set up list of numbers or get from user
         2. Store numbers in a variable
            1. Convert number from string to number
            2. Store actual number in array/list
         3. Create another function to check numbers in list if they are less than 5
            1. If less than 5 store in a new list
            2. Print new list of numbers