



THE ITERATIVE PROCESS

Dan Bonarigo, Riverside Brookfield High School, Riverside, IL



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Additional materials may be found at www.ncyte.net



THE ITERATIVE PROCESS

PASSWORD PROGRAMMING ACTIVITY

Students will write programs in pseudocode to accomplish various tasks associated with password security and creation.

PROGRAMMING TASK 1

Write a program that asks the user to enter a password. The program should check the length of the password and verify that is 6 or greater. If the password is less than 6 characters prompt the user to enter a new password. This program should allow the user to enter a password as many times as it takes until they enter a password of the appropriate length.

SAMPLE OUTPUT FOR TASK 1

User entries are underlined:

Enter your password: ABCDE

Your password is too short!

Enter your password: abcde

Your password is too short!

Enter your password: tyuo

Your password is too short!

Enter your password: ABCDEFG

Your password is long enough!

PROGRAMMING TASK 2

Write a program that asks a user to create a password that is at least 6 characters long and has at least one uppercase letter A, B, C, D, or E. Prompt the user to re-enter a password if it does not meet the length requirement OR if it does not have an uppercase character A, B, C, D, or E. This program should allow the user to



enter a password as many times as it takes until they enter a password of the appropriate length and/or with the uppercase characters.

SAMPLE OUTPUT FOR TASK 2

User entries are underlined:

Enter a password that is at least 6 characters long and has at least one A,B,C,D, or E: helloWorld

Your password does not meet the requirements.

Enter a password that is at least 6 characters long and has at least one A,B,C,D, or E: hEllo

Your password does not meet the requirements.

Enter a password that is at least 6 characters long and has at least one A,B,C,D, or E: HELLOworld

Your password meets the requirements!

PROGRAMMING TASK 3

Write a program that asks the user to enter a password that is at least 6 characters long, includes at least one uppercase letter X, Y or Z and at least one number. Prompt the user to enter a new password if it does not meet the requirements. This program should allow the user to enter a password as many times as it takes until they enter a password of the appropriate length and/or with the uppercase characters and numbers.

SAMPLE OUTPUT FOR TASK 3

User entries are underlined:

Enter a password that is at least 6 characters long, has at least one X, Y or Z and at least one number 0-9: The1X

Your password does not meet the requirements.

Enter a password that is at least 6 characters long, has at least one X, Y or Z and at least one number 0-9: TheoneZ



Your password does not meet the requirements.

Enter a password that is at least 6 characters long, has at least one X, Y or Z and at least one number 0-9: theONEXYZ

Your password does not meet the requirements.

Enter a password that is at least 6 characters long, has at least one X, Y or Z and at least one number 0-9: Theone1Y

Your password meets the requirements!

WHAT TO SUBMIT

Students should turn in their paper for grading and/or verification of completion. Teachers should use this as an opportunity for formative assessment to verify students' ability to write a program using loops.

