

Assignment 1 – ATM Withdrawal

Due midnight 2/9/2018

Topics Covered: console input & output, loops and conditional statements

Functional Requirements:

- ☐ You work for a progressive bank that is installing ATMs which will deliver withdrawals in multiple bill denominations: \$50, \$20, \$10, \$5 and \$1
- ☐ Write a program that determines number of bills to return with a withdrawal request.
- ☐ Your program should start by requesting the user to enter the amount to withdrawn
- ☐ The amount entered should be validated
 - Withdraws must be > \$1.00
 - Withdrawals cannot be > \$300.00
- ☐ If the Amount is not valid then the user will be asked to re-enter until a valid number is entered.
- ☐ After a valid number is entered the # of each bill type should be determined and presented, optimizing for the fewest number of bills
 - E.g. Withdrawal of \$200 should be 4 x \$50.00 (versus 20 x \$10 bills)
 - # \$50.00 bills
 - # \$20.00 bills
 - # \$10.00 bills
 - # \$5.00 bills
 - # \$1.00 bills
- ☐ Only show the amount if the number of bills is > 0
 - e.g do not show : 0 \$50.00 bills
- ☐ After presenting the change, the program should allow the use to enter another transaction
- ☐ The program should continue accepting input and making change until the user enters '0' to quit.

Non Functional Requirements

- ☐ Your program should be properly commented, clearly indicating what the program is doing
- ☐ Your program should employ the use at least 2 loops (you choose: for or while or do-while)
 - ☐ one that loops until a valid input is entered
 - ☐ one that loops to allow for additional withdrawals
- ☐ DO not use GOTOs

Submission Requirements

- ☐ You should upload your program to your github account in a repository called: [INFO450ATM](#)
- ☐ Turn in your project on blackboard by uploading the URL to your github repository

NOTE: you may work together helping each other out, but you **MUST** turn in your own work.

C:\windows\system32\cmd.exe

Please enter withdrawal amount --> 500
Sorry the max amount you can withdraw is \$300.00.

Please enter withdrawal amount --> 0
Sorry the min amount you can withdraw \$1.00.

Please enter withdrawal amount --> 223
you have 4 \$50.00 bills
you have 1 \$20.00 bills
you have 3 \$1.00 bills

another withdrawal? enter Y to continue
y

Please enter withdrawal amount --> 186
you have 3 \$50.00 bills
you have 1 \$20.00 bills
you have 1 \$10.00 bills
you have 1 \$5.00 bills
you have 1 \$1.00 bills

another withdrawal? enter Y to continue
Y

Please enter withdrawal amount --> 154
you have 3 \$50.00 bills
you have 4 \$1.00 bills

another withdrawal? enter Y to continue
n

Press any key to continue . . .