

CSC 210 – In-class 03 – Condition and Loop (Chapter 4 and 5)

1. Ask the user to enter a *positive integer*, n (make sure to validate data) and then you will print output of square value of each value from 1 up to n . One per row [LASTNAME_C3P1_Squares.cpp]

Number	Square
1	1
2	4
3	9
4

2. Ask the user to enter a positive number (N) between 1 and 10, if not, then ask them again.
If the value is in range, then print the N rows of stars, starting from 1 star in the first row, and then up to N stars in row N th, then back down to 1. [LASTNAME_C3P2_Stars.cpp]

If a user enter 3, then your output should look like this

```
*
**
***
**
*
```

3. Develop a C++ program that will determine whether a department-store customer has exceeded the credit limit on a charge account. For each customer, the following facts are available: [LASTNAME_C3P3_Credits.cpp]
 - (a) Account number (an integer)
 - (b) Balance at the beginning of the month
 - (c) Total of all items charged by this customer this month
 - (d) Total of all credits applied to this customer's account this month
 - (e) Allowed credit limit
- The program should use a while statement to input each of these facts,
 - calculate the new balance
(= beginning balance + charges – credits)
and
 - determine whether the new balance exceeds the customer's credit limit.
- For those customers whose credit limit is exceeded, the program should display the customer's account number, credit limit, new balance and the message "Credit Limit Exceeded."
- Sample output is as shown on the right:
BOLD numbers are input values

```
Enter account number (or -1 to quit): 100
Enter beginning balance: 5394.78
Enter total charges: 1000.00
Enter total credits: 500.00
Enter credit limit: 5500.00
New balance is 5894.78
Account: 100
Credit limit: 5500.00
Balance: 5894.78
Credit Limit Exceeded.

Enter Account Number (or -1 to quit): 200
Enter beginning balance: 1000.00
Enter total charges: 123.45
Enter total credits: 321.00
Enter credit limit: 1500.00
New balance is 802.45

Enter Account Number (or -1 to quit): 300
Enter beginning balance: 500.00
Enter total charges: 274.73
Enter total credits: 100.00
Enter credit limit: 800.00
New balance is 674.73

Enter Account Number (or -1 to quit): -1
```