CSC3320 System Level Programming
Lab Assignment 7 - Post-Lab

Due at 11:59 pm on Friday, March 5, 2021

Purpose: Learn how to get input and print out formatted results

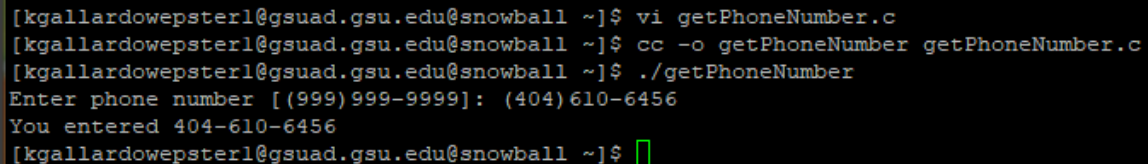using *scanf* and *printf* separately in C.

Part 1:

1)   Write a C program named as ***getPhoneNumber.c*** that prompts the user to enter a telephone number in the form (999)999-9999 and then displays the number in the form 999   -999-999:

```
Enter phone number [(999)999-9999]: (404)123-4567
You entered 404 -123-4567
```

Question: Execute your **getPhoneNumber.c** and attach a screenshot of the output. Then write the source code of **getPhoneNumber.*c*** in your answer sheet and upload your file **getPhoneNumber.*c*** to googleClassroom.

```
[kgallardowepster1@gsuad.gsu.edu@snowball ~]$ vi getPhoneNumber.c
[kgallardowepster1@gsuad.gsu.edu@snowball ~]$ cc -o getPhoneNumber getPhoneNumber.c
[kgallardowepster1@gsuad.gsu.edu@snowball ~]$ ./getPhoneNumber
Enter phone number [(999)999-9999]: (404)610-6456
You entered 404-610-6456
[kgallardowepster1@gsuad.gsu.edu@snowball ~]$ 
```

```c
#include <stdio.h>

int main()
{
 int number1, number2, number3;

 printf("Enter phone number [(999)999-9999]: ");

 scanf("(%d)%d-%d", &number1, &number2, &number3);
 printf("You entered %d-%d-%d\n", number1, number2, number3);
 return 0;
}
```

2)   Write a program named as *calcPrice.*c that formats product information entered by the user and calculate the total amount of purchase.

```
Enter item number:583
Enter unit price:13.5
Enter quantity:2
Enter purchase date (mm/dd/yyyy):09/15/2016
Item        Unit Price          QTY Purchase Date Total Amount
583          $    13.50       2     9/15/2016       $    27.00
```

The item number, quantity and date should be left justified; the unit price and total amount should be right justified. Hint: Use tabs to line up the columns.

Question: Execute your **calcPrice.c** and attach a screenshot of the output. Then write the

source code of **calcPrice.c** in your answer sheet and upload your file **calcPrice.c** to

classroom.

```
[kgallardowepster1@gsuad.gsu.edu@snowball ~]$ ./calcPrice
Enter item number:583
Enter unit price:13.5
Enter quantity:2
Enter purchase date:09/15/2016
Item    Unit Price      QTY     Purchase Date   Total Amount
583     $    13.50      2       09/15/2016      $    27.00
```

```c
#include <stdio.h>

int main()
{
  int itemNumber, quantity;
  double unitPrice;
  char purchaseDate[12];

  printf("Enter item number:");
  scanf("%d", &itemNumber);

  printf("Enter unit price:");
  scanf("%lf", &unitPrice);

  printf("Enter quantity:");
  scanf("%d", &quantity);

  printf("Enter purchase date:");
  scanf("%s", purchaseDate);

  printf("Item\tUnit Price\tQTY\tPurchase Date\tTotal Amount\n");
  printf("%d\t", itemNumber);
  printf("$%9.2lf\t",unitPrice);
  printf("%d\t",quantity);
  printf("%s\t",purchaseDate);
  printf("$%9.2lf\n\n",unitPrice * quantity);

 return 0;
}
```

Part 2: (Optional)
Note : This part is not for grading. But you will get some feedback. Can you write a shell script to finish the same task as in question 1) of Part 1?

Submssion:

- Please follow the instructions below step by step, and then write a report by answering the questions and upload the report (named as Lab7_FirstNameLastName.pdf or Lab7_FirstNameLastName.doc) to Google Classroom, under the rubric Lab 7 Out-of-lab Assignment.

- Upload files **getPhoneNumber.c** and **calcPrice.c** to the rubric named "Lab7" of the classroom. **Note: if you do not upload the C files you would get zero for this assignment**.

- Please add the lab assignment NUMBER and your NAME at the top of your file sheet.