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:

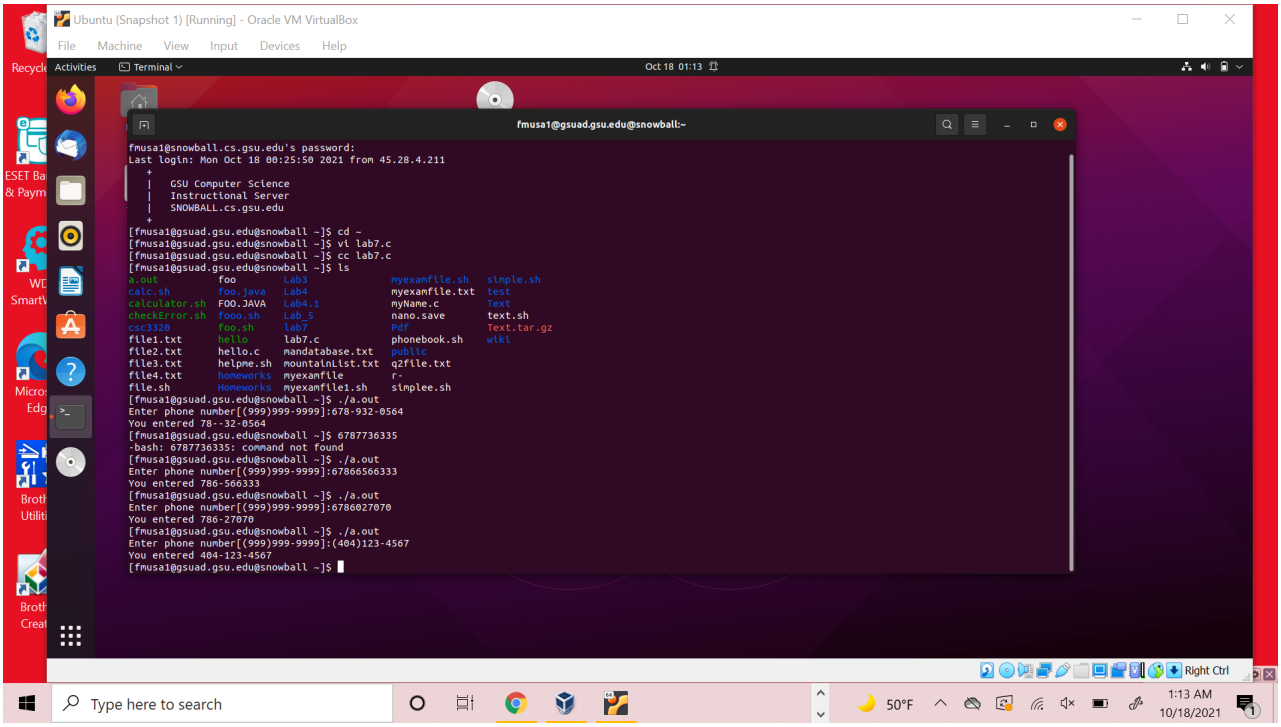
1) Write a C program named as ***getPhoneNumber.c*** that prompts the user to enter a telephone number in the form (999)999-9999 and then displays the number in the form 999-999-999:

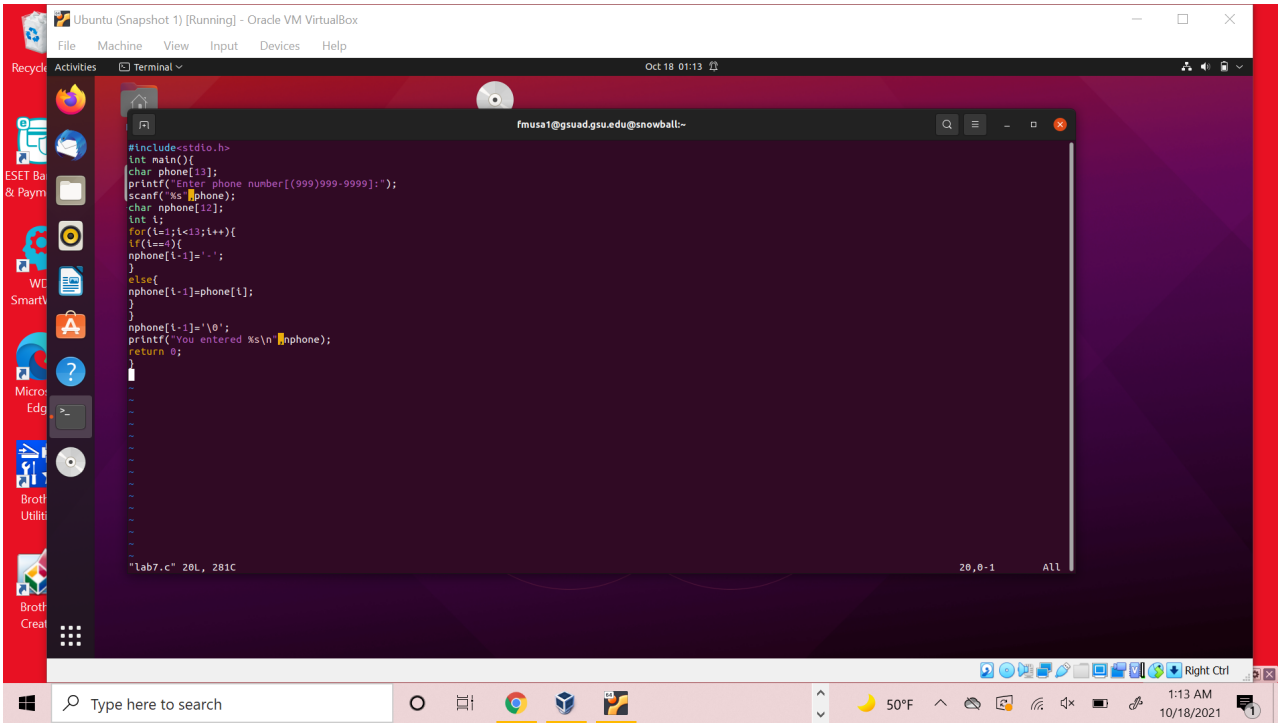
```
Enter phone number [(999)999-9999]: (404)123-4567
You entered 404-123-4567
```

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.

```
#include<stdio.h>
int main(){
char phone[13];
printf("Enter phone number [(999)999-9999]:");
scanf("%s",phone);
char nphone[12];
int i;
for(i=1;i<13;i++){
if(i==4){
nphone[i-1] = '-';
}
else{
nphone[i-1] = phone[i];
}
}
//add ending char
nphone[i-1] = '\0';
```

```
printf("You entered %s\n",nphone);
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.

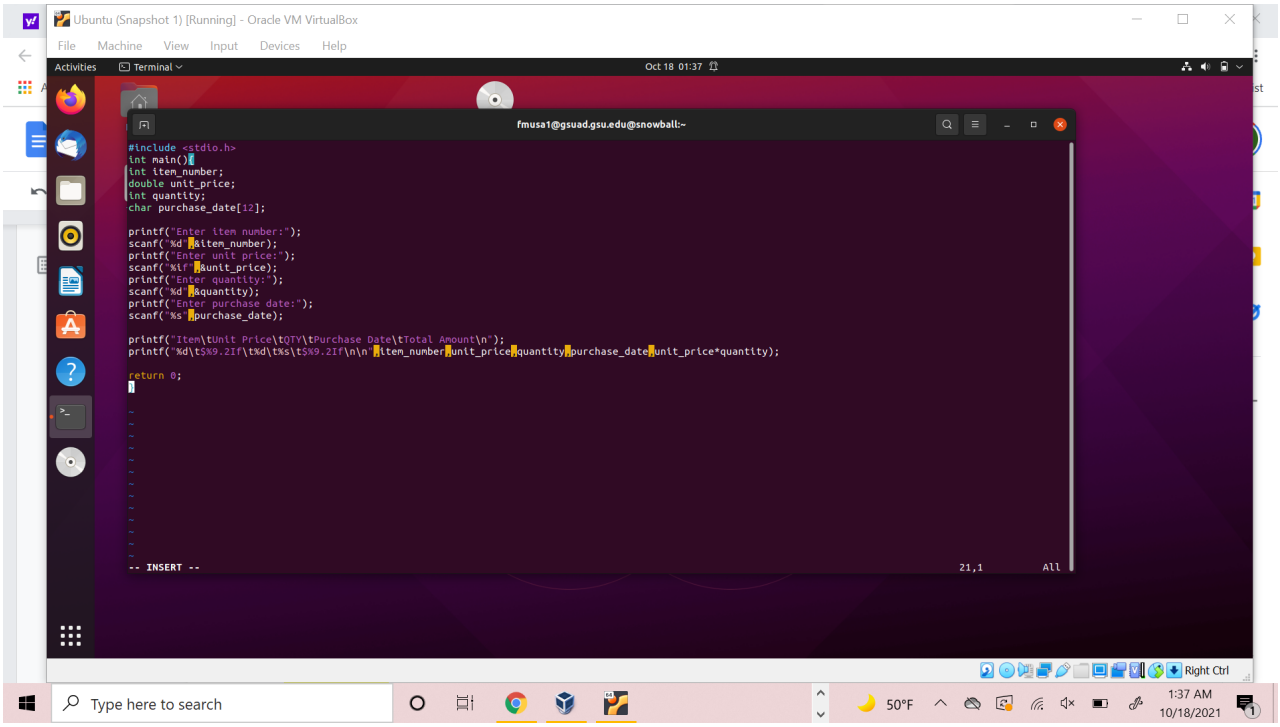
```
Enter item number:583
Enter unit price:13.5
Enter quantity:2
Enter purchase date (mm/dd/yyyy):09/15/2016
Item Unit Price QTY Purchase Date Total Amount 583 $
13.50 2 9/15/2016 $ 27.00
```

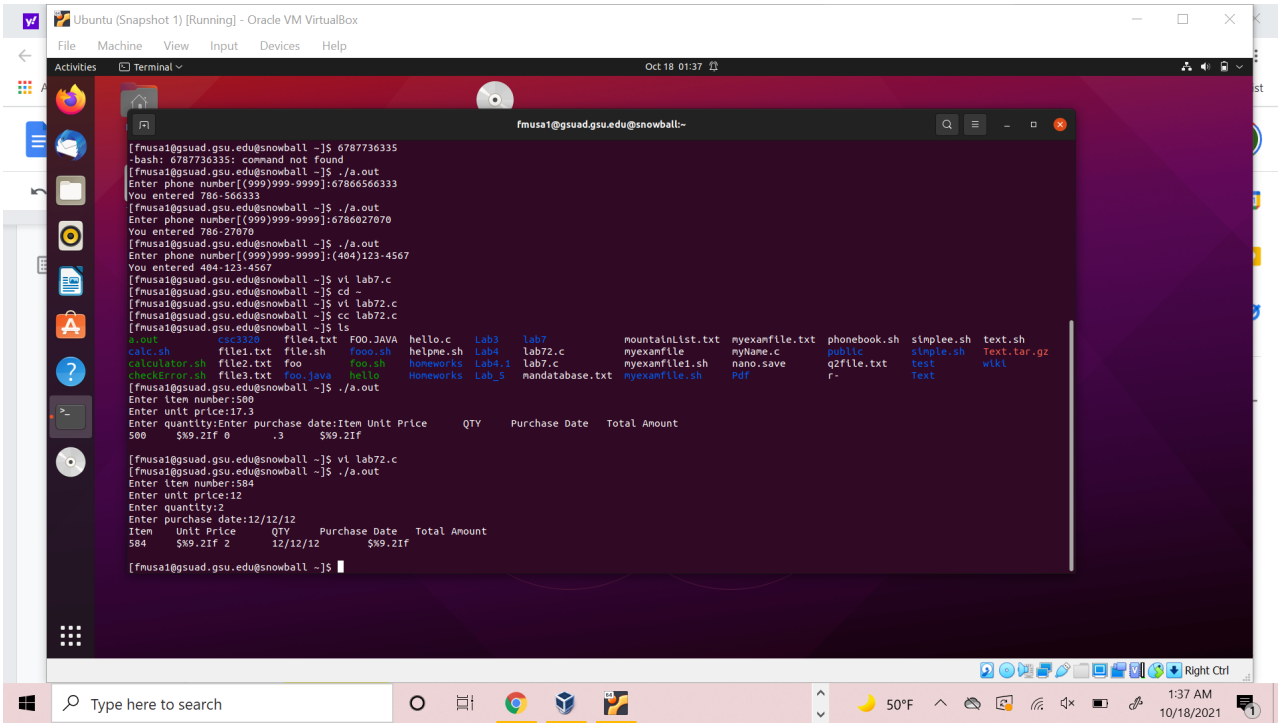
The item number, quantity and date should be left justified; the unit price and total amount should be right justified. Hint: Use tabs to line up the columns.

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.

```
int main(){
   int item_number;
   double unit_price;
   int quantity;
   char purchase_date[12];

   printf("Enter item number:");
   scanf("%d", &item_number);
   printf("Enter unit price:");
   scanf("%lf", &unit_price);
   printf("Enter quantity:");
   scanf("%d", &quantity);
   printf("Enter purchase date:");
   scanf("%s", purchase_date);
```

```
    printf("Item\tUnit Price\tQTY\tPurchase Date\tTotal Amount\n");

    printf("%d\t$%9.2lf\t%d\t%s\t$%9.2lf\n\n", item_number, unit_price, quantity, purchase_date,
unit_price * 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.