	COLLEGE OF COMPUTING AND INFORMATION SCIENCES		
	Final Assessment of Lab Exam (Summer 2021 Semester)		
Class Id	107242	**Course Title**	Operating System lab
Program	BSCS	**Campus / Shift**	Main/ Morning
Date	July 15, 2021	**Total Marks**	20
Duration	02.5 hours	**Faculty Name**	Kazim Ali
Student Id	11070	**Student Name**	Kamisha Salim
Code	**A**		

Instructions:

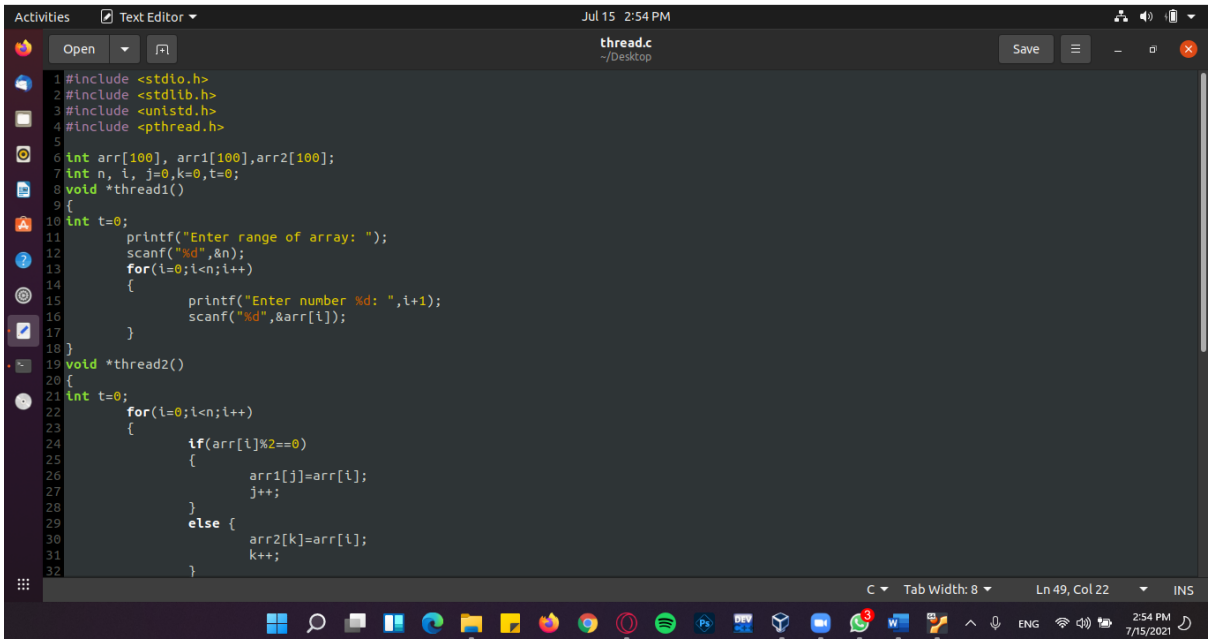
- Fill out your Student ID and Student Name in above header. Do not remove or change any part question paper. Write down your answers with title "Answer for Question# 00".
- Handwritten text or image should be on A4 size page with clear visibility of contents.
- In case of CHEATING, COPIED material or any unfair means would result in negative marking or ZERO.
- Viva can be taken with prior notice, where deemed necessary.
- **Caution:** Duration to perform Final Assessment is **02 hours only and 30 min** is given to cater all kinds of odds in submission of Answer-sheet. **Therefore, if you failed to upload answer sheet on LMS (in PDF format) within 2.5 hours' limit, you would be considered as ABSENT/FAILED.**

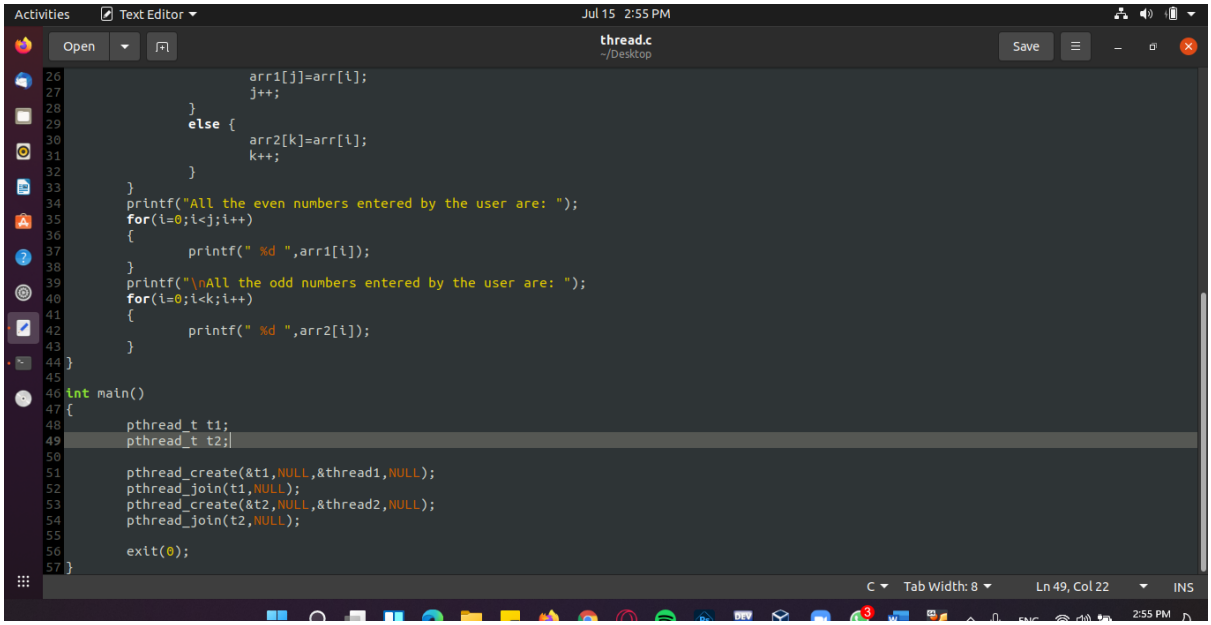
Note: Question 1 to 3 is for those students who last number of student ID is odd number and Q4 to Q6 is for those students who have even number at last in Student ID

QUESTION – 4

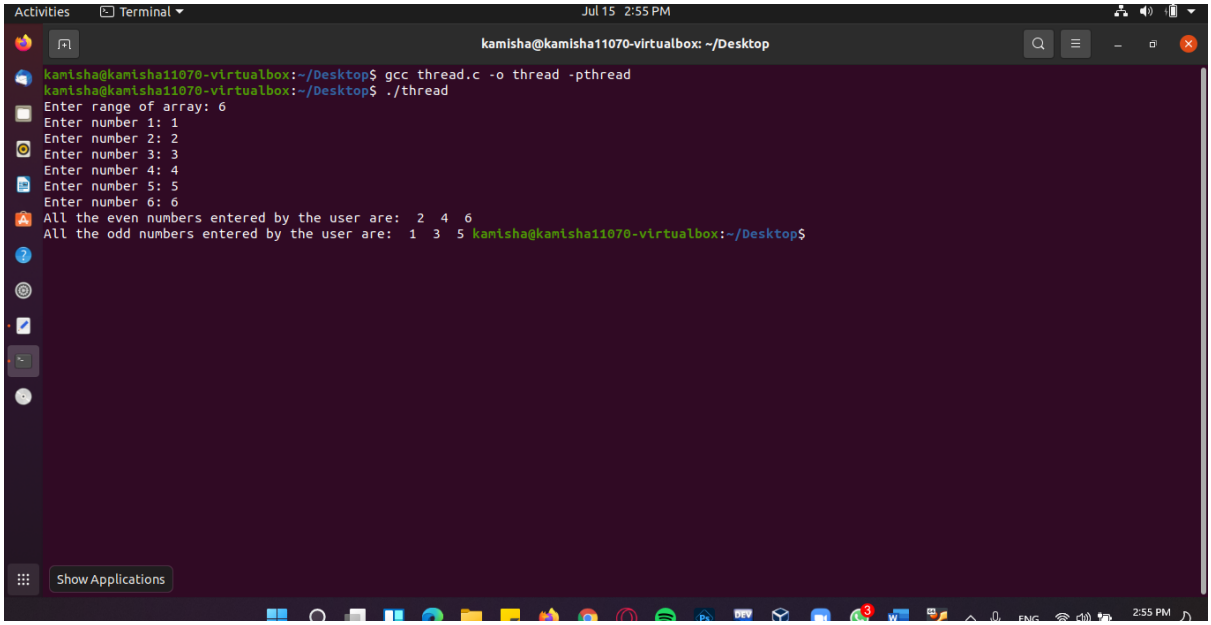
Write a multithreaded program that outputs Odd and even. This Program should work as follows: The user will run the program and will enter a number on the command line. The program will then create a separate thread that outputs all the Odd or even the number entered by the user.

CODE:




Activities
Text Editor
Jul 15 2:55 PM
Open
thread.c
~/Desktop
Save
arr1[j]=arr[i];
j++;
}
else {
arr2[k]=arr[i];
k++;
}
}
printf("All the even numbers entered by the user are: ");
for(i=0;i<j;i++)
{
printf(" %d ",arr1[i]);
}
printf("\nAll the odd numbers entered by the user are: ");
for(i=0;i<k;i++)
{
printf(" %d ",arr2[i]);
}
}
int main()
{
pthread_t t1;
pthread_t t2;
pthread_create(&t1,NULL,&thread1,NULL);
pthread_join(t1,NULL);
pthread_create(&t2,NULL,&thread2,NULL);
pthread_join(t2,NULL);
exit(0);
}
C
Tab Width: 8
Ln 49, Col 22
INS
2:55 PM

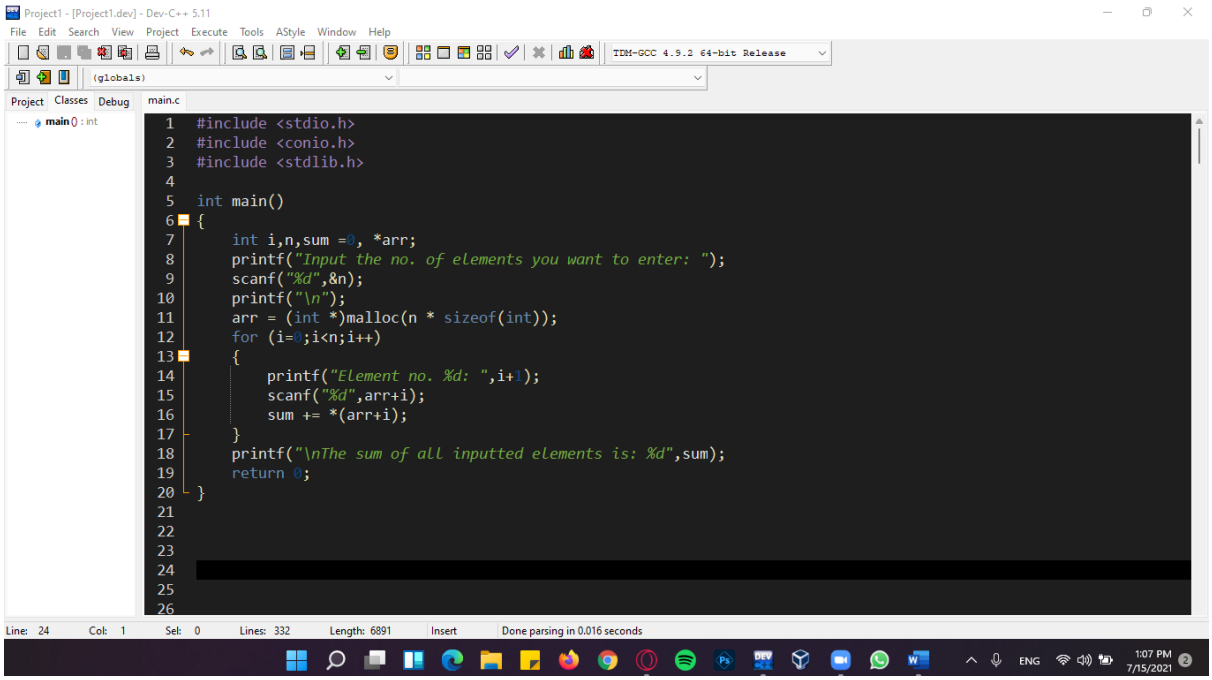
OUTPUT:


Activities
Terminal
Jul 15 2:55 PM
kamisha@kamisha11070-virtualbox: ~/Desktop
kamisha@kamisha11070-virtualbox:~/Desktop$ gcc thread.c -o thread -pthread
kamisha@kamisha11070-virtualbox:~/Desktop$ ./thread
Enter range of array: 6
Enter number 1: 1
Enter number 2: 2
Enter number 3: 3
Enter number 4: 4
Enter number 5: 5
Enter number 6: 6
All the even numbers entered by the user are: 2 4 6
All the odd numbers entered by the user are: 1 3 5 kamisha@kamisha11070-virtualbox:~/Desktop$
Show Applications
2:55 PM

QUESTION – 5

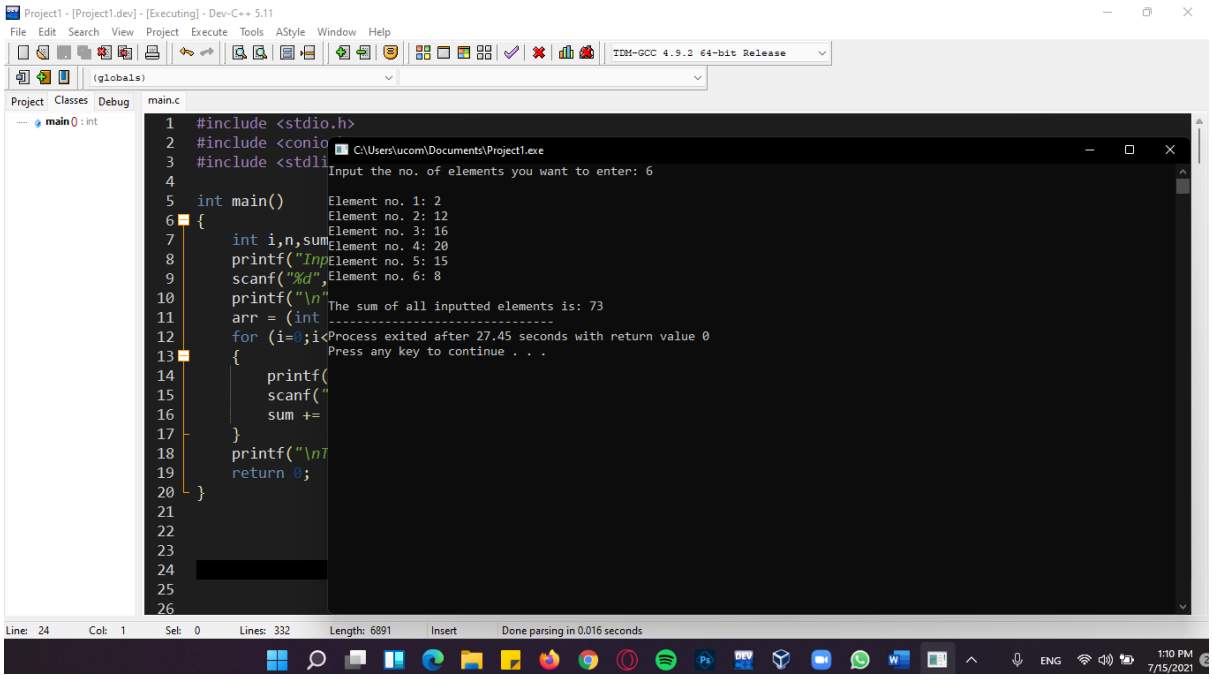
Find the sum of n numbers entered by user using dynamically allocated memory using C programming.

CODE:



```c
#include <stdio.h>
#include <conio.h>
#include <stdlib.h>

int main()
{
    int i,n,sum =0, *arr;
    printf("Input the no. of elements you want to enter: ");
    scanf("%d",&n);
    printf("\n");
    arr = (int *)malloc(n * sizeof(int));
    for (i=0;i<n;i++)
    {
        printf("Element no. %d: ",i+1);
        scanf("%d",arr+i);
        sum += *(arr+i);
    }
    printf("\nThe sum of all inputted elements is: %d",sum);
    return 0;
}
```

OUTPUT:

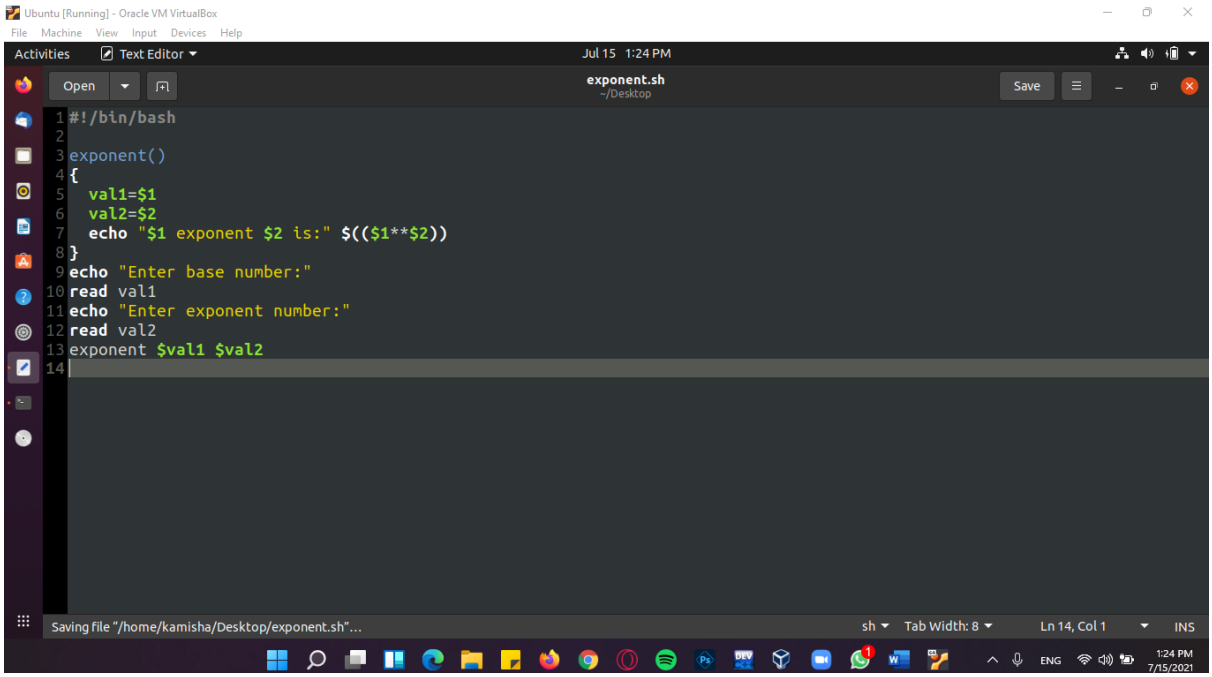


```
Input the no. of elements you want to enter: 6

Element no. 1: 2
Element no. 2: 12
Element no. 3: 16
Element no. 4: 20
Element no. 5: 15
Element no. 6: 8

The sum of all inputted elements is: 73
--------------------------------
Process exited after 27.45 seconds with return value 0
Press any key to continue . . .
```

QUESTION – 6

Create a function that takes a base number and an exponent number and returns the calculation.

CODE:



OUTPUT: