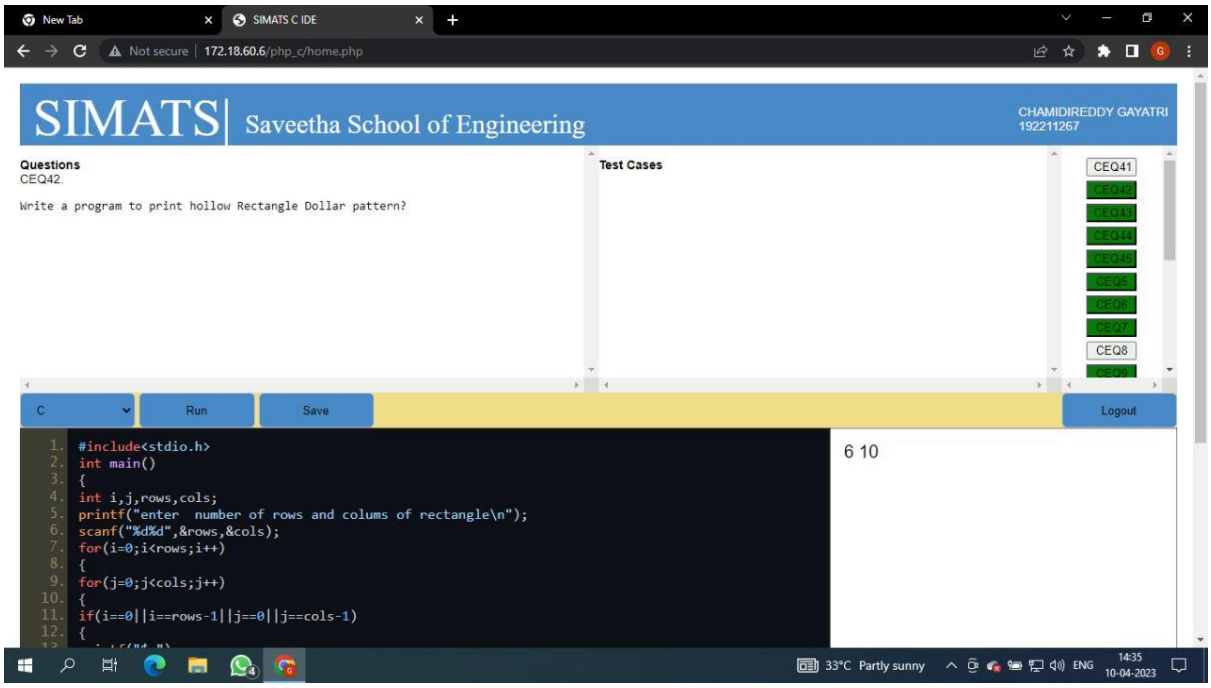
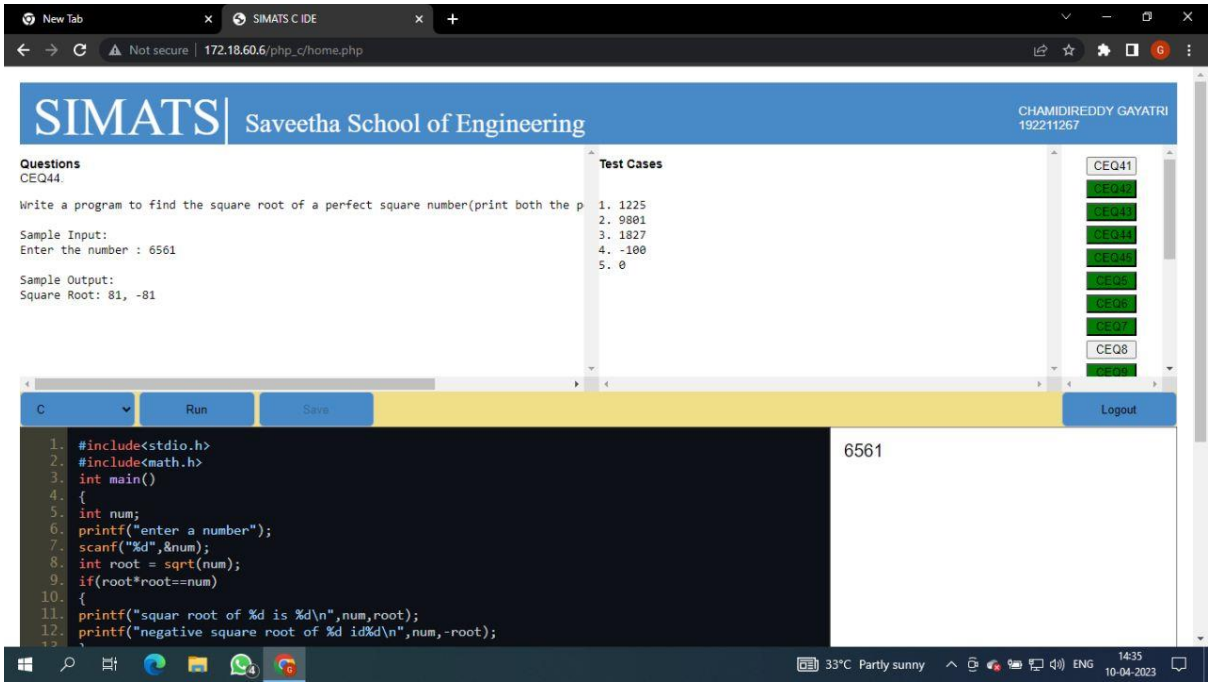
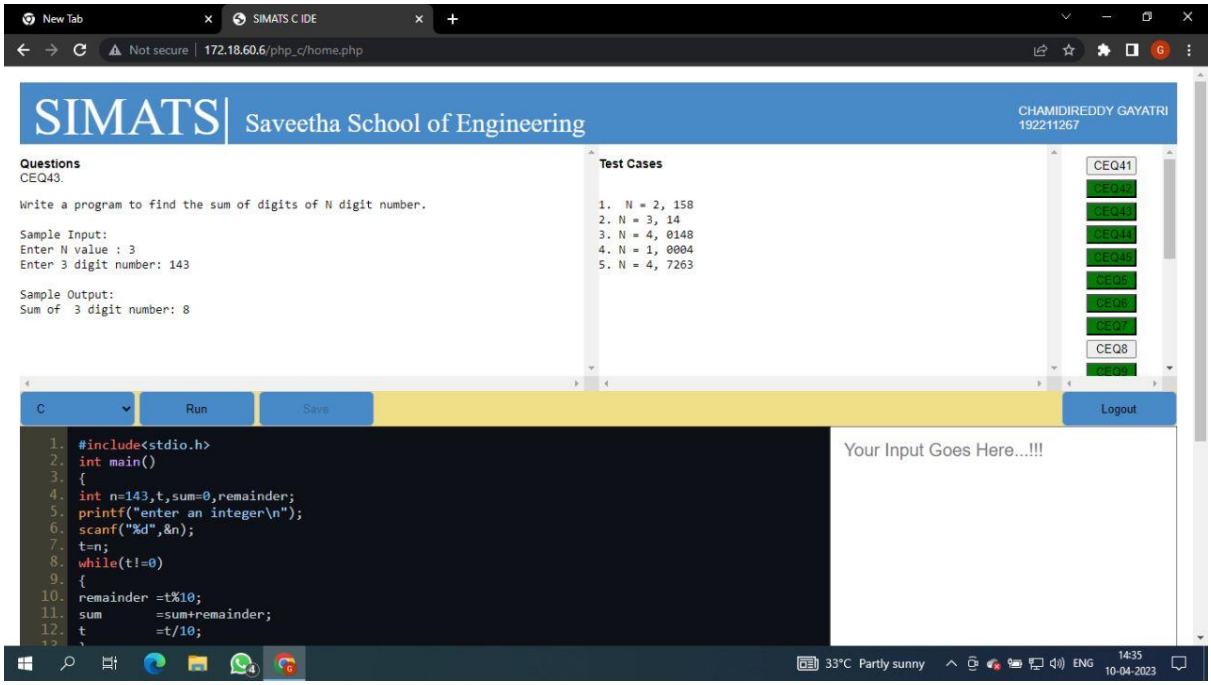
C PROGRAMMING MODEL EXAM

C GAYATRI

192211267



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Questions
CEQ43.
Write a program to find the sum of digits of N digit number.
Sample Input:
Enter N value : 3
Enter 3 digit number: 143
Sample Output:
Sum of 3 digit number: 8
Test Cases
1. N = 2, 158
2. N = 3, 14
3. N = 4, 0148
4. N = 1, 0004
5. N = 4, 7263
CEQ41
CEQ42
CEQ43
CEQ44
CEQ45
CEQ5
CEQ6
CEQ7
CEQ8
C
Run
Save
Logout
#include<stdio.h>
int main()
{
int n=143,t,sum=0,remainder;
printf("enter an integer\n");
scanf("%d",&n);
t=n;
while(t!=0)
{
remainder =t%10;
sum =sum+remainder;
t =t/10;
Your Input Goes Here...!!!
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ENG
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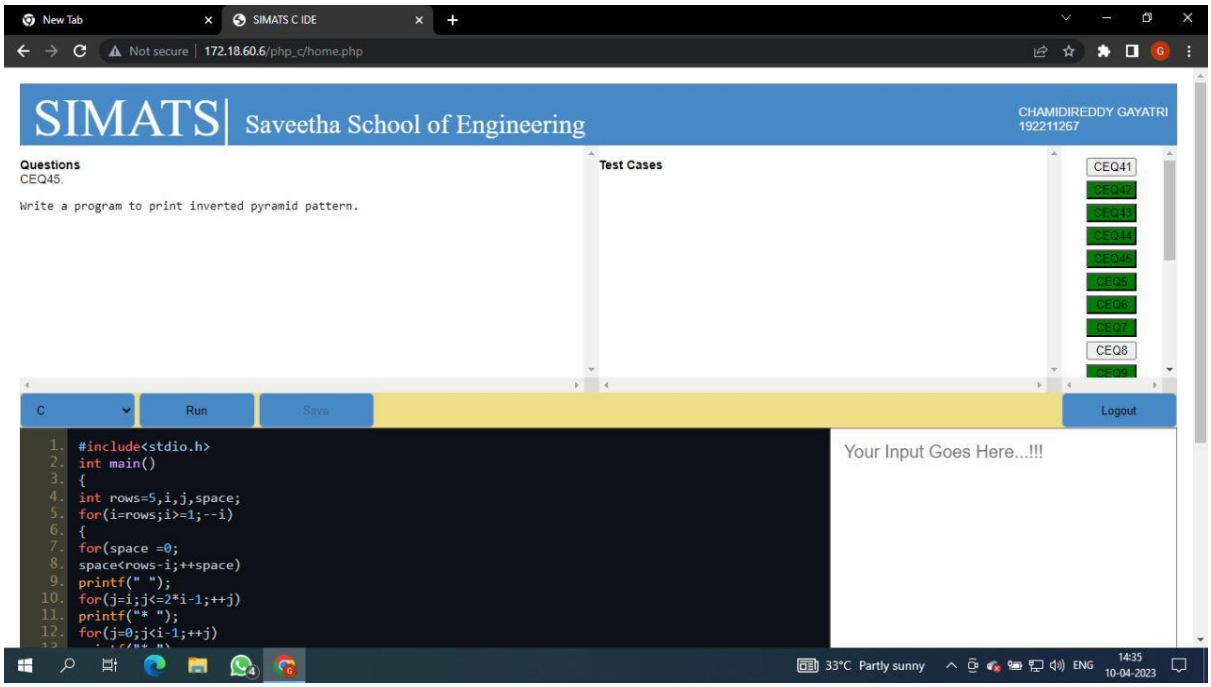
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Questions
CEQ45.
Write a program to print inverted pyramid pattern.
Test Cases
CEQ41
CEQ42
CEQ43
CEQ44
CEQ45
CEQ5
CEQ6
CEQ7
CEQ8
C
Run
Save
Logout
#include<stdio.h>
int main()
{
int rows=5,i,j,space;
for(i=rows;i>=1;--i)
{
for(space =0;
space<rows-i;++space)
printf(" ");
for(j=i;j<=2*i-1;++j)
printf("* ");
for(j=0;j<i-1;++j)
Your Input Goes Here...!!!
33°C Partly sunny
ENG
14:35
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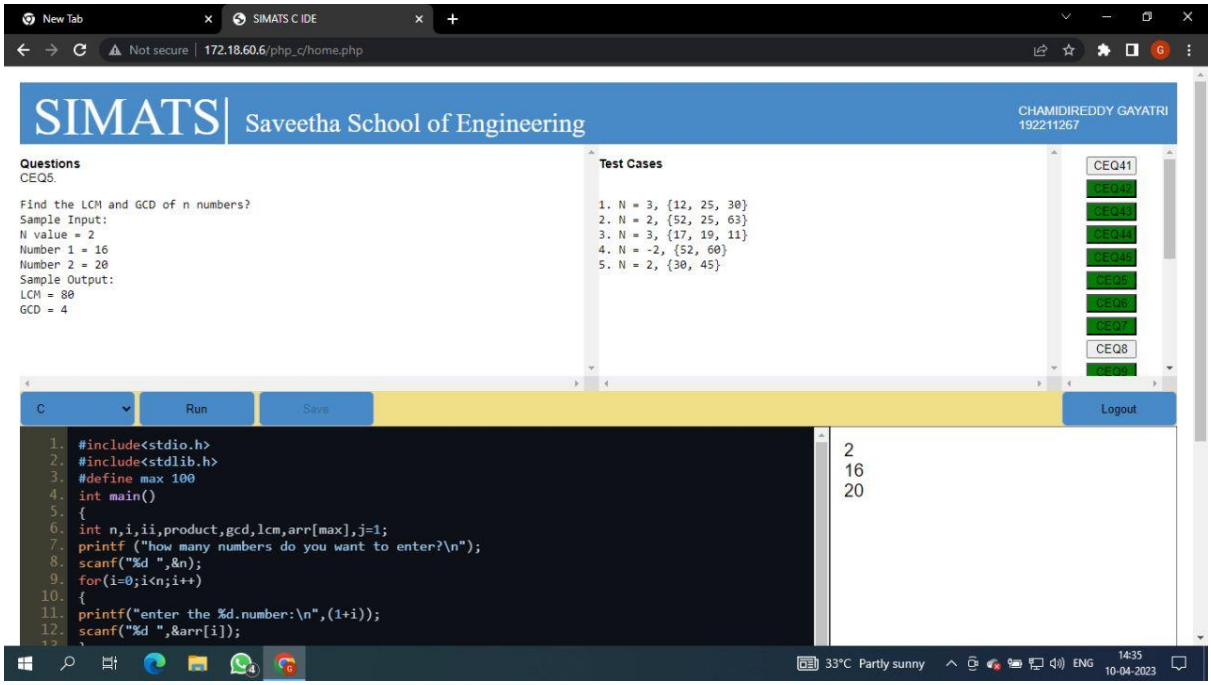
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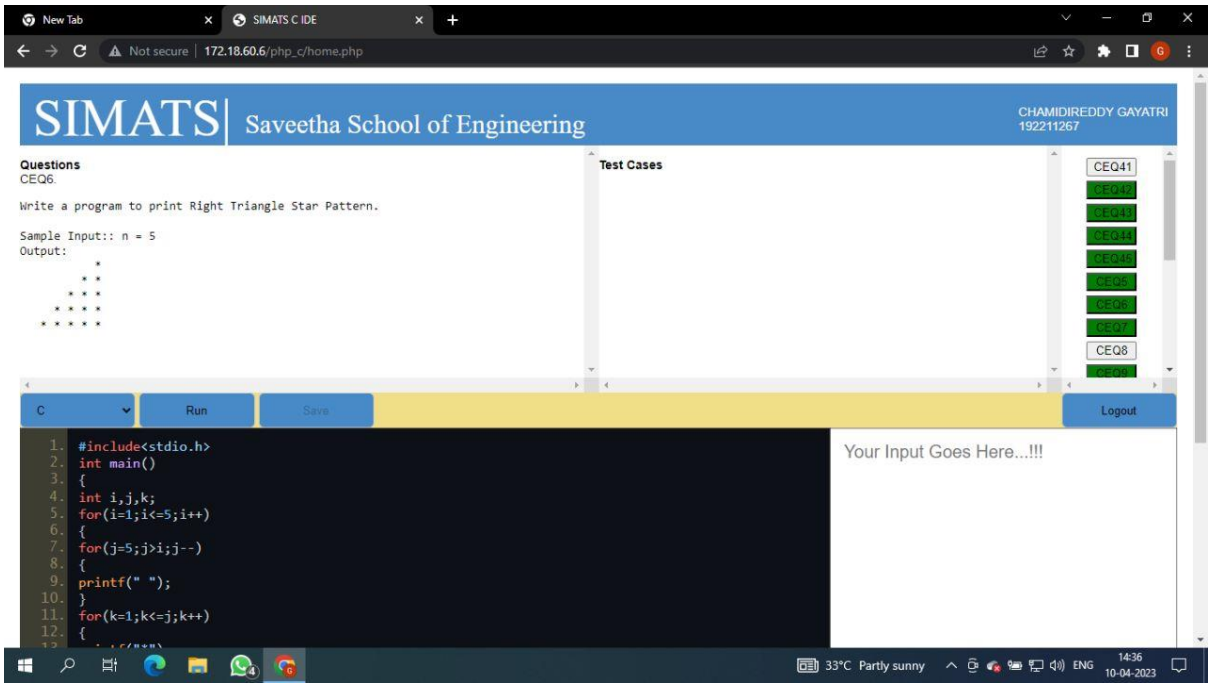
Questions
CEQ5.
Find the LCM and GCD of n numbers?
Sample Input:
N value = 2
Number 1 = 16
Number 2 = 20
Sample Output:
LCM = 80
GCD = 4
Test Cases
1. N = 3, {12, 25, 30}
2. N = 2, {52, 25, 63}
3. N = 3, {17, 19, 11}
4. N = -2, {52, 60}
5. N = 2, {30, 45}
CEQ41
CEQ42
CEQ43
CEQ44
CEQ45
CEQ5
CEQ6
CEQ7
CEQ8
C
Run
Save
Logout
#include<stdio.h>
#include<stdlib.h>
#define max 100
int main()
{
int n,i,ii,product,gcd,lcm,arr[max],j=1;
printf ("how many numbers do you want to enter?\n");
scanf("%d ",&n);
for(i=0;i<n;i++)
{
printf("enter the %d.number:\n",(1+i));
scanf("%d ",&arr[i]);
2
16
20
33°C Partly sunny
ENG
14:35
10-04-2023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Questions
CEQ6.
Write a program to print Right Triangle Star Pattern.
Sample Input:: n = 5
Output:
Test Cases
CEQ41
CEQ42
CEQ43
CEQ44
CEQ45
CEQ5
CEQ6
CEQ7
CEQ8
C
Run
Save
Logout
#include<stdio.h>
int main()
{
int i,j,k;
for(i=1;i<=5;i++)
{
for(j=5;j>i;j--)
{
printf(" ");
}
for(k=1;k<=j;k++)
{
Your Input Goes Here...!!!
33°C Partly sunny
ENG
14:36
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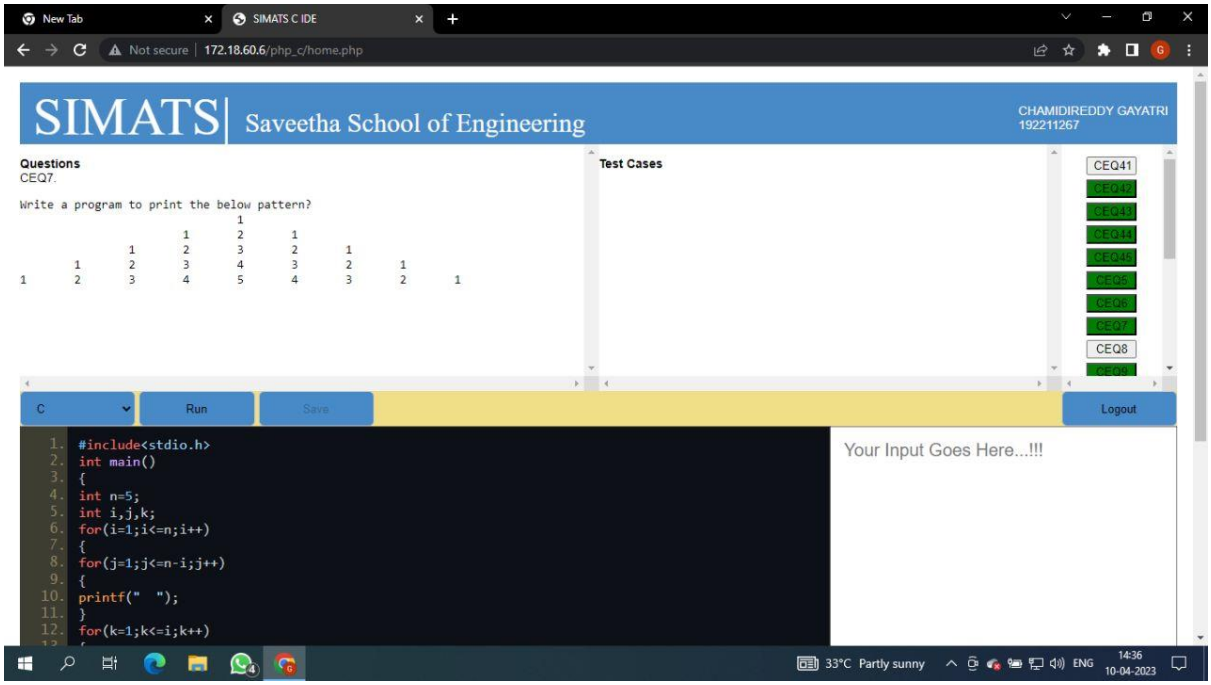
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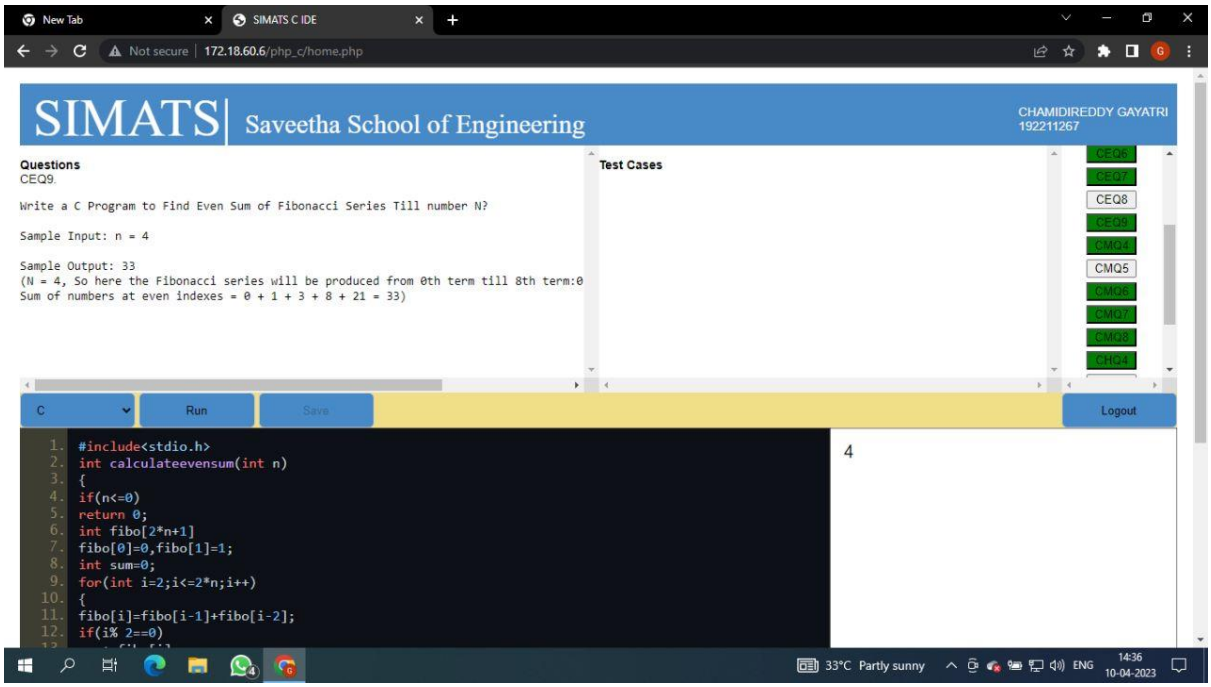
Questions
CEQ7.
Write a program to print the below pattern?
1
1 2 1
1 2 3 2 1
1 2 3 4 3 2 1
1 2 3 4 5 4 3 2 1
Test Cases
CEQ41
CEQ42
CEQ43
CEQ44
CEQ45
CEQ5
CEQ6
CEQ7
CEQ8
C
Run
Save
Logout
#include<stdio.h>
int main()
{
int n=5;
int i,j,k;
for(i=1;i<=n;i++)
{
for(j=1;j<=n-i;j++)
{
printf(" ");
}
for(k=1;k<=i;k++)
Your Input Goes Here...!!!
33°C Partly sunny
ENG
14:36
10-04-2023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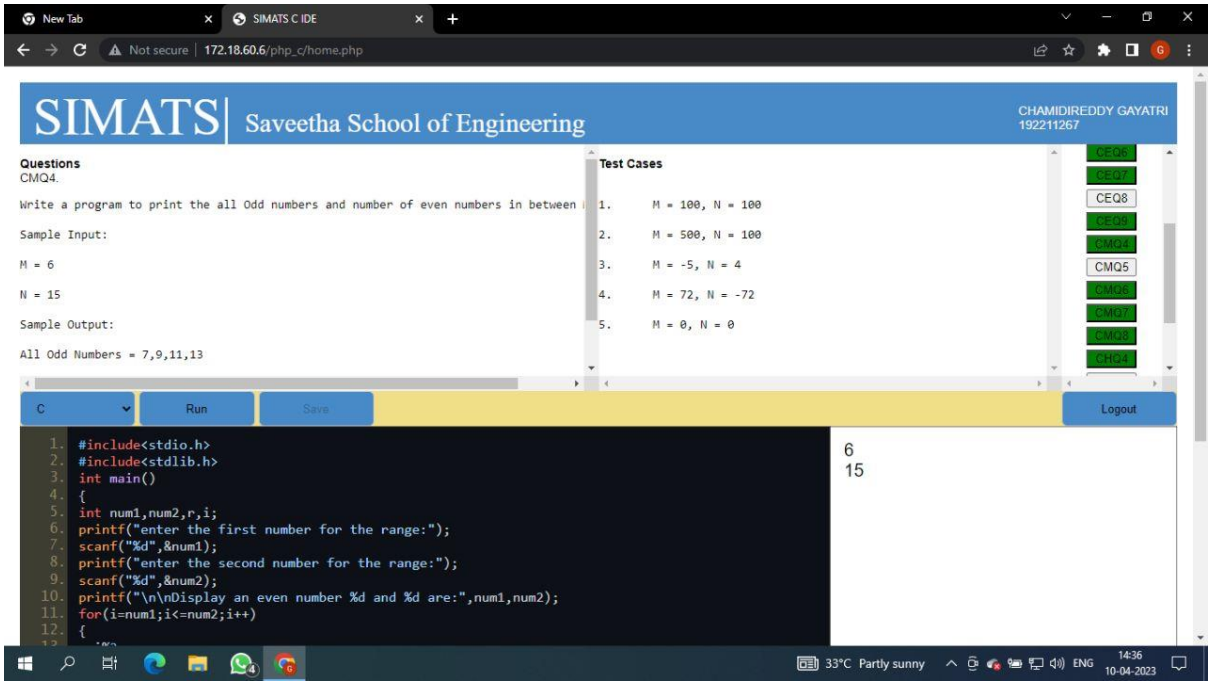
Questions
CEQ9.
Write a C Program to Find Even Sum of Fibonacci Series Till number N?
Sample Input: n = 4
Sample Output: 33
(N = 4, So here the Fibonacci series will be produced from 0th term till 8th term:0
Sum of numbers at even indexes = 0 + 1 + 3 + 8 + 21 = 33)
Test Cases
CEQ6
CEQ7
CEQ8
CEQ9
CMQ4
CMQ5
CMQ6
CMQ7
CMQ8
CHQ4
C
Run
Save
Logout
#include<stdio.h>
int calculateevensum(int n)
{
if(n<=0)
return 0;
int fibo[2*n+1]
fibo[0]=0,fibo[1]=1;
int sum=0;
for(int i=2;i<=2*n;i++)
{
fibo[i]=fibo[i-1]+fibo[i-2];
if(i% 2==0)
4
33°C Partly sunny
ENG
14:36
10-04-2023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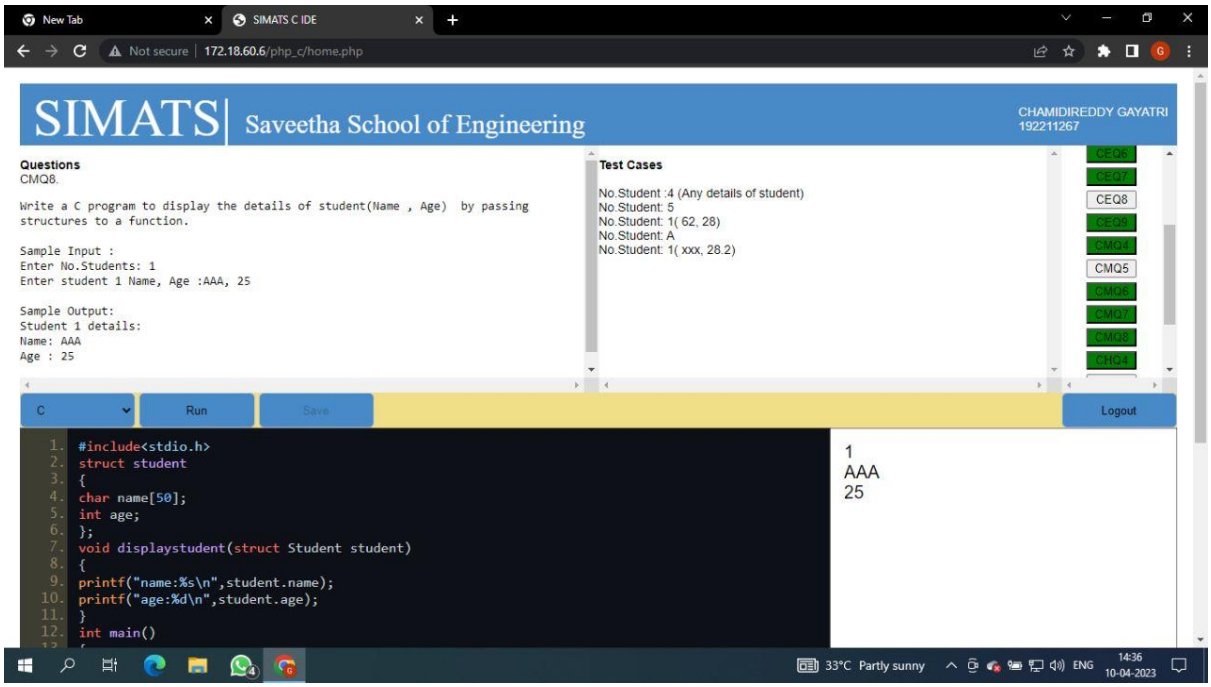
Questions
CMQ4.
Write a program to print the all Odd numbers and number of even numbers in between
Sample Input:
M = 6
N = 15
Sample Output:
All Odd Numbers = 7,9,11,13
Test Cases
1. M = 100, N = 100
2. M = 500, N = 100
3. M = -5, N = 4
4. M = 72, N = -72
5. M = 0, N = 0
CEQ6
CEQ7
CEQ8
CEQ9
CMQ4
CMQ5
CMQ6
CMQ7
CMQ8
CHQ4
C
Run
Save
Logout
#include<stdio.h>
#include<stdlib.h>
int main()
{
int num1,num2,r,i;
printf("enter the first number for the range:");
scanf("%d",&num1);
printf("enter the second number for the range:");
scanf("%d",&num2);
printf("\n\nDisplay an even number %d and %d are:",num1,num2);
for(i=num1;i<=num2;i++)
{
6
15
33°C Partly sunny
ENG
14:36
10-04-2023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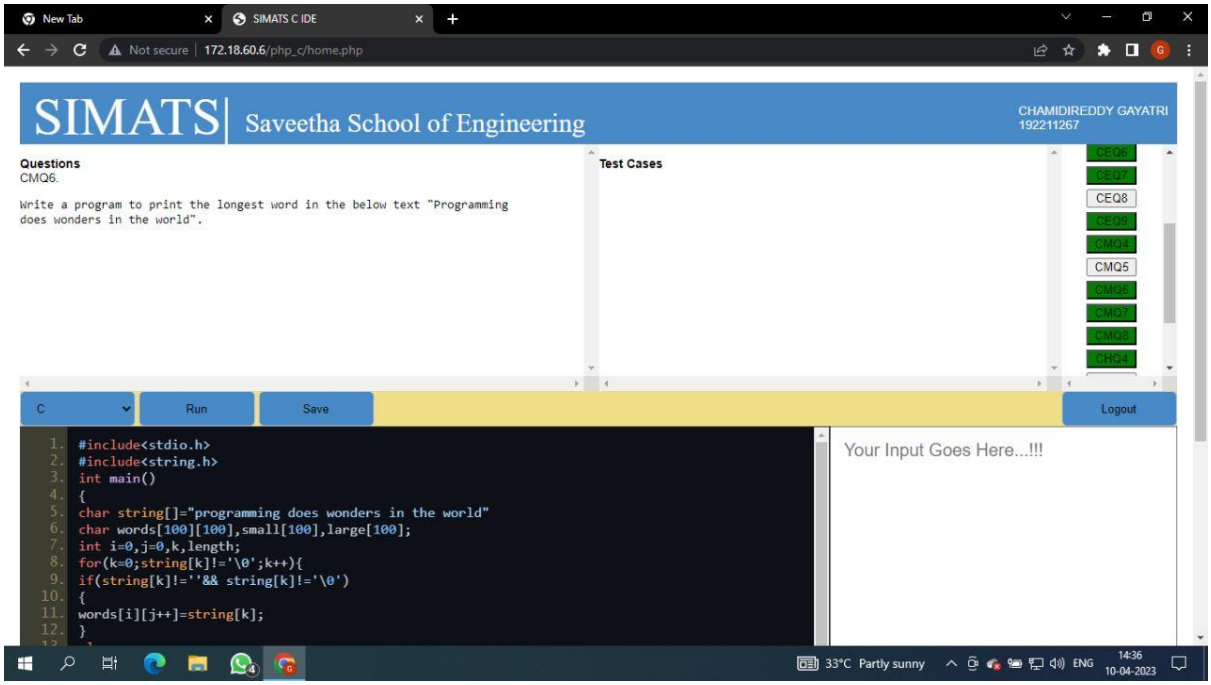
Questions
CMQ8.
Write a C program to display the details of student(Name , Age) by passing structures to a function.
Sample Input :
Enter No.Students: 1
Enter student 1 Name, Age :AAA, 25
Sample Output:
Student 1 details:
Name: AAA
Age : 25
Test Cases
No.Student :4 (Any details of student)
No.Student: 5
No.Student: 1(62, 28)
No.Student: A
No.Student: 1(xxx, 28.2)
CEQ6
CEQ7
CEQ8
CEQ9
CMQ4
CMQ5
CMQ6
CMQ7
CMQ8
CHQ4
C
Run
Save
Logout
#include<stdio.h>
struct student
{
char name[50];
int age;
};
void displaystudent(struct Student student)
{
printf("name:%s\n",student.name);
printf("age:%d\n",student.age);
}
int main()
1
AAA
25
33°C Partly sunny
ENG
14:36
10-04-2023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Questions
CMQ6.
Write a program to print the longest word in the below text "Programming does wonders in the world".
Test Cases
CEQ6
CEQ7
CEQ8
CEQ9
CMQ4
CMQ5
CMQ6
CMQ7
CMQ8
CHQ4
C
Run
Save
Logout
#include<stdio.h>
#include<string.h>
int main()
{
char string[]="programming does wonders in the world"
char words[100][100],small[100],large[100];
int i=0,j=0,k,length;
for(k=0;string[k]!='\0';k++){
if(string[k]!=''&& string[k]!='\0')
{
words[i][j++]=string[k];
}
Your Input Goes Here...!!!
33°C Partly sunny
ENG
14:36
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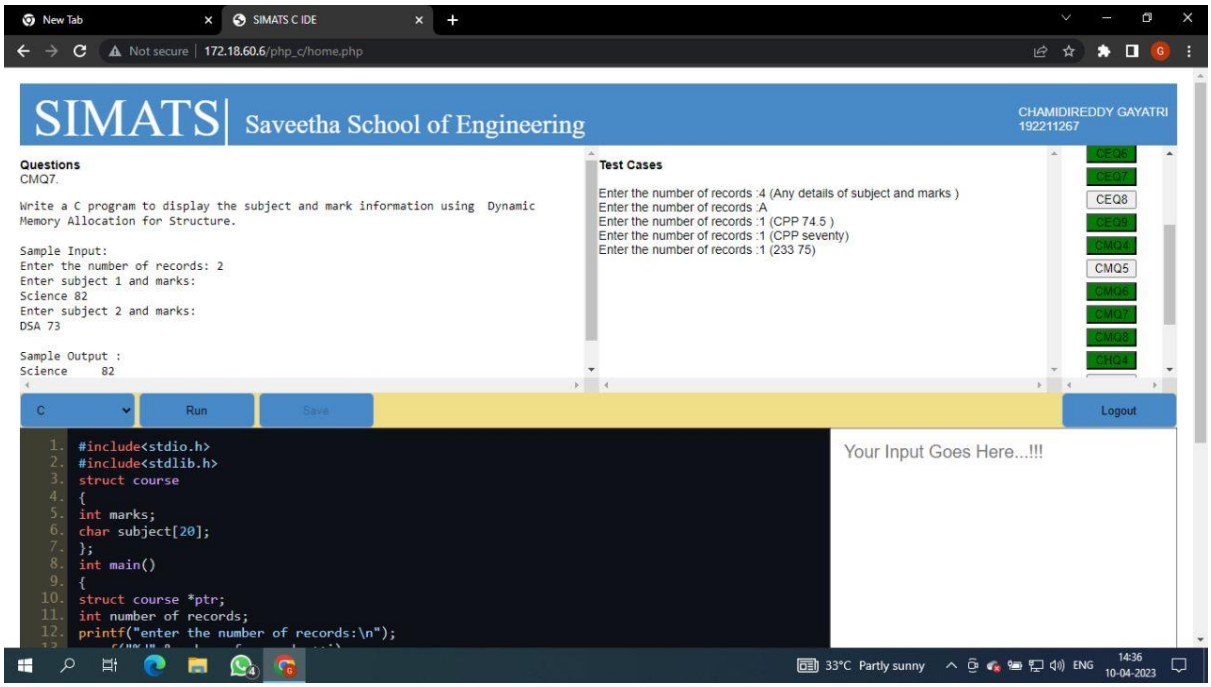
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Questions
CMQ7.
Write a C program to display the subject and mark information using Dynamic Memory Allocation for Structure.
Sample Input:
Enter the number of records: 2
Enter subject 1 and marks:
Science 82
Enter subject 2 and marks:
DSA 73
Sample Output :
Science 82
Test Cases
Enter the number of records :4 (Any details of subject and marks)
Enter the number of records :A
Enter the number of records :1 (CPP 74.5)
Enter the number of records :1 (CPP seventy)
Enter the number of records :1 (233 75)
CEQ6
CEQ7
CEQ8
CEQ9
CMQ4
CMQ5
CMQ6
CMQ7
CMQ8
CHQ4
C
Run
Save
Logout
#include<stdio.h>
#include<stdlib.h>
struct course
{
int marks;
char subject[20];
};
int main()
{
struct course *ptr;
int number of records;
printf("enter the number of records:\n");
Your Input Goes Here...!!!
33°C Partly sunny
ENG
14:36
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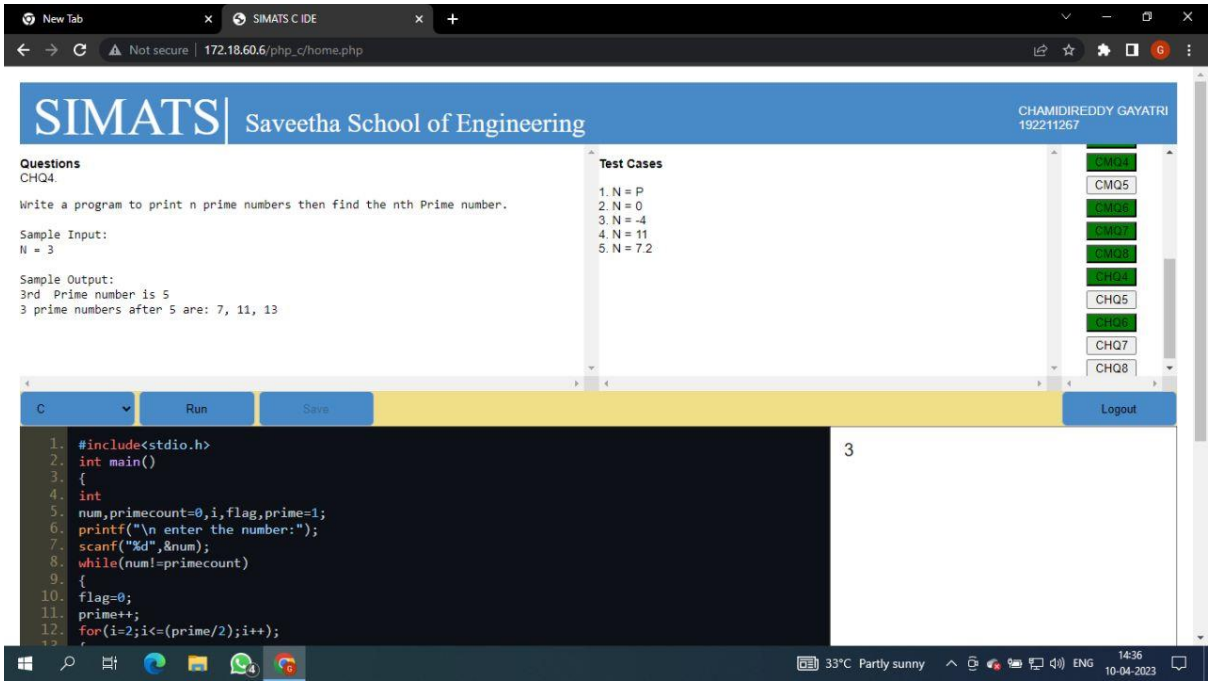
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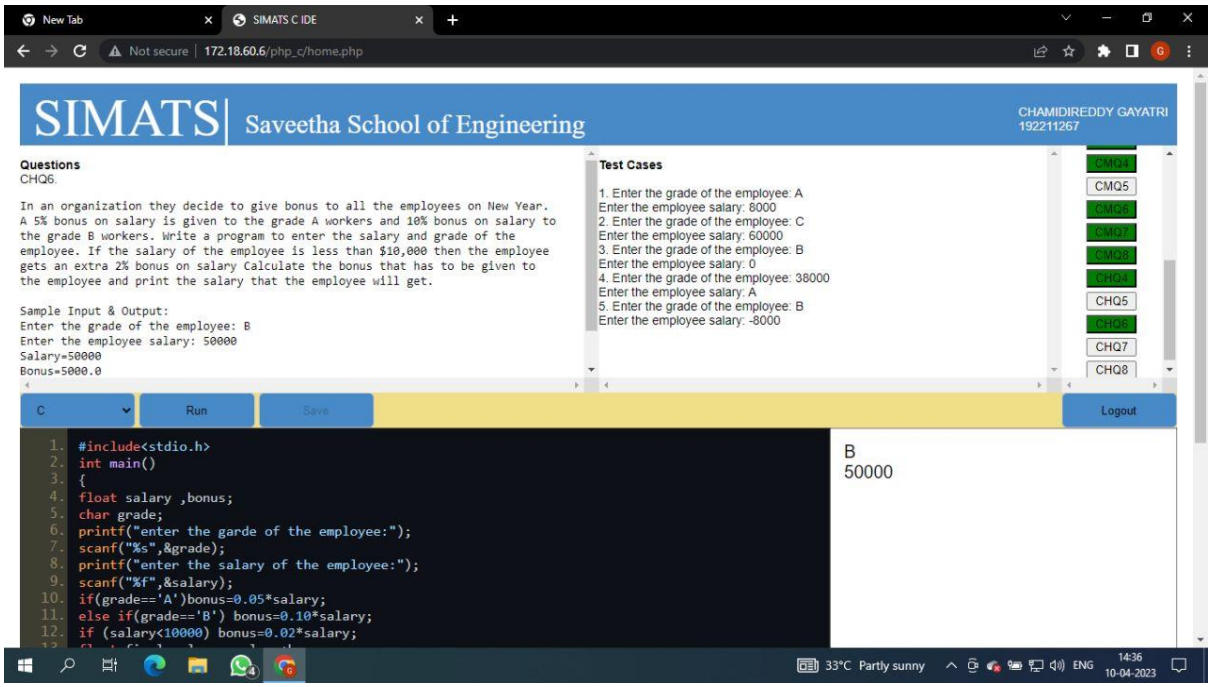
Questions
CHQ4.
Write a program to print n prime numbers then find the nth Prime number.
Sample Input:
N = 3
Sample Output:
3rd Prime number is 5
3 prime numbers after 5 are: 7, 11, 13
Test Cases
1. N = P
2. N = 0
3. N = -4
4. N = 11
5. N = 7.2
CMQ4
CMQ5
CMQ6
CMQ7
CMQ8
CHQ4
CHQ5
CHQ6
CHQ7
CHQ8
C
Run
Save
Logout
#include<stdio.h>
int main()
{
int
num,primecount=0,i,flag,prime=1;
printf("\n enter the number:");
scanf("%d",&num);
while(num!=primecount)
{
flag=0;
prime++;
for(i=2;i<=(prime/2);i++);
3
33°C Partly sunny
ENG
14:36
10-04-2023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Questions
CHQ6.
In an organization they decide to give bonus to all the employees on New Year.
A 5% bonus on salary is given to the grade A workers and 10% bonus on salary to
the grade B workers. Write a program to enter the salary and grade of the
employee. If the salary of the employee is less than $10,000 then the employee
gets an extra 2% bonus on salary Calculate the bonus that has to be given to
the employee and print the salary that the employee will get.
Sample Input & Output:
Enter the grade of the employee: B
Enter the employee salary: 50000
Salary=50000
Bonus=5000.0
Test Cases
1. Enter the grade of the employee: A
Enter the employee salary: 8000
2. Enter the grade of the employee: C
Enter the employee salary: 60000
3. Enter the grade of the employee: B
Enter the employee salary: 0
4. Enter the grade of the employee: 38000
Enter the employee salary: A
5. Enter the grade of the employee: B
Enter the employee salary: -8000
CMQ4
CMQ5
CMQ6
CMQ7
CMQ8
CHQ4
CHQ5
CHQ6
CHQ7
CHQ8
C
Run
Save
Logout
#include<stdio.h>
int main()
{
float salary ,bonus;
char grade;
printf("enter the garde of the employee:");
scanf("%s",&grade);
printf("enter the salary of the employee:");
scanf("%f",&salary);
if(grade=='A')bonus=0.05*salary;
else if(grade=='B') bonus=0.10*salary;
if (salary<10000) bonus=0.02*salary;
B
50000
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ENG
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Questions
CEQ41.

Write a program that accepts a string from user and displays the same string after removing vowels from it.

Sample Input & Output:
Enter a string: we can play the game
The string without vowels is: w cn ply thgm

Test Cases

CEQ41 CEQ42 CEQ43 CEQ44 CEQ45 CEQ5 CEQ6 CEQ7 CEQ8 CEQ9

C | Run | Save | Logout

```c
#include<stdio.h>
#include<string.h>
int main(){
char str[100];
int i,j, len = 0;
printf("enter the string");
scanf("%s",str);
len = strlen(str);
for(i = 0; i < len; i++){
if(str[i]=='a'||str[i]== 'e'||str[i]=='i'||str[i]=='o'||str[i]=='u'||
   str[i]=='A'||str[i]=='E'||str[i]=='I'||str[i]=='O'||str[i]=='U'){
for(j=i;j<len;j++){
str[j]=str[j+1];
}
i--;
len--;
}
str[len + 1]= '\0';
}
printf("after deleting the vowel will be %s",str);
return 0;
}
```

we can play the game

enter the stringafter deleting the vowel will be w

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Questions
CHQ7.

Write a program to search the given element using binary search method and display its position in a linear array.

Sample Input:
Array of elements = {16, 18, 27, 16, 23, 21, 19}
Element to search = 23

Sample Output:
Given element 23 is found at 5 th position

Test Cases

CMQ4 CMQ5 CMQ6 CMQ7 CMQ8 CHQ4 CHQ5 CHQ6 CHQ7 CHQ8

C | Run | Save | Logout

```c
#include <stdio.h>
int main()
{
int i,low,high,mid,n,key,array[100];
printf("Enter number of elements\n");
scanf("%d",&n);
printf("Enter %d integers\n",n);
for(i=0;i<n;i++)
scanf("%d",&array[i]);
printf("Enter value to find\n");
scanf("%d",&key);
low=0;
high=n-1;
mid=(low+high)/2;
while (low+high)
{
if (array[mid]<key)
low=mid+1;
else if (array[mid]==key)
```

16,18,27,16,23,21,19
23

Enter number of elements
Enter 16 integers
Enter value to find

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Questions
CEQ8.

Write a program using function to calculate the simple interest. Suppose the customer is a senior citizen. He is being offered 12 percent rate of interest; for all other customers, the ROI is 10 percent.

Sample Input:
Enter the principal amount: 200000
Enter the no of years: 3
Is customer senior citizen (y/n): n

Sample Output:
Interest: 60000

Test Cases

1. Principal: 2000 , Years: 0
2. Principal: 20000 , Years: -2
3. Principal: -2000 , Years: 2
4. Principal: 2 , Years: 2000
5. Principal: 0 , Years: 5

CEQ5
CEQ5
CMQ4
CMQ5
CMQ6
CMQ7
CMQ8
CHQ4
CHQ5
CHQ6

C | Run | Save | Logou

```c
#include <stdio.h>
int main()
{
int year,amount;
float interest;
char sc;
printf("Enter citizen:");
scanf("%s",&sc);
printf("\nEnter amount:");
scanf("%d",&amount);
printf("\nEnter years:");
scanf("%d",&year);
if(sc="n"){
interest=(amount*year*12)/100;
printf("\nsimple interest=%f",interest);
}
else if (sc=="y")
```

Your Input Goes Here...!!!

<pre>ExecutionFolder/192225023.c: In

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