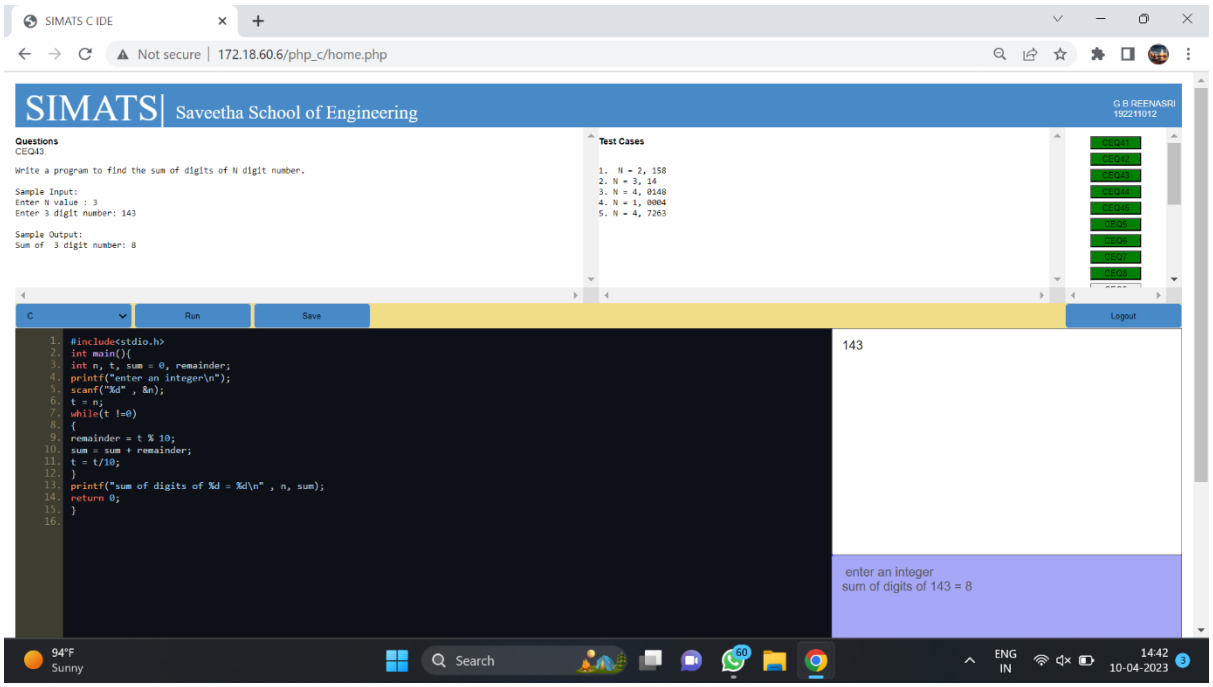
DAY-6 MODEL PROGRAMS

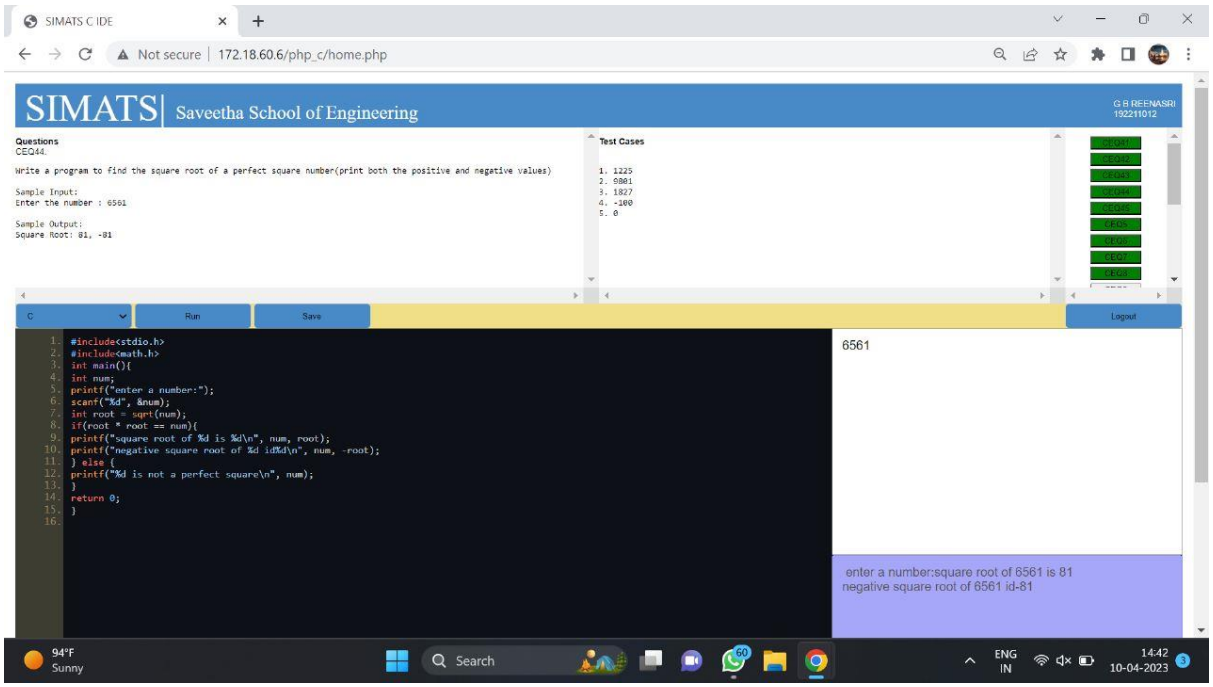
GB REENASRI

192211012

1.



2.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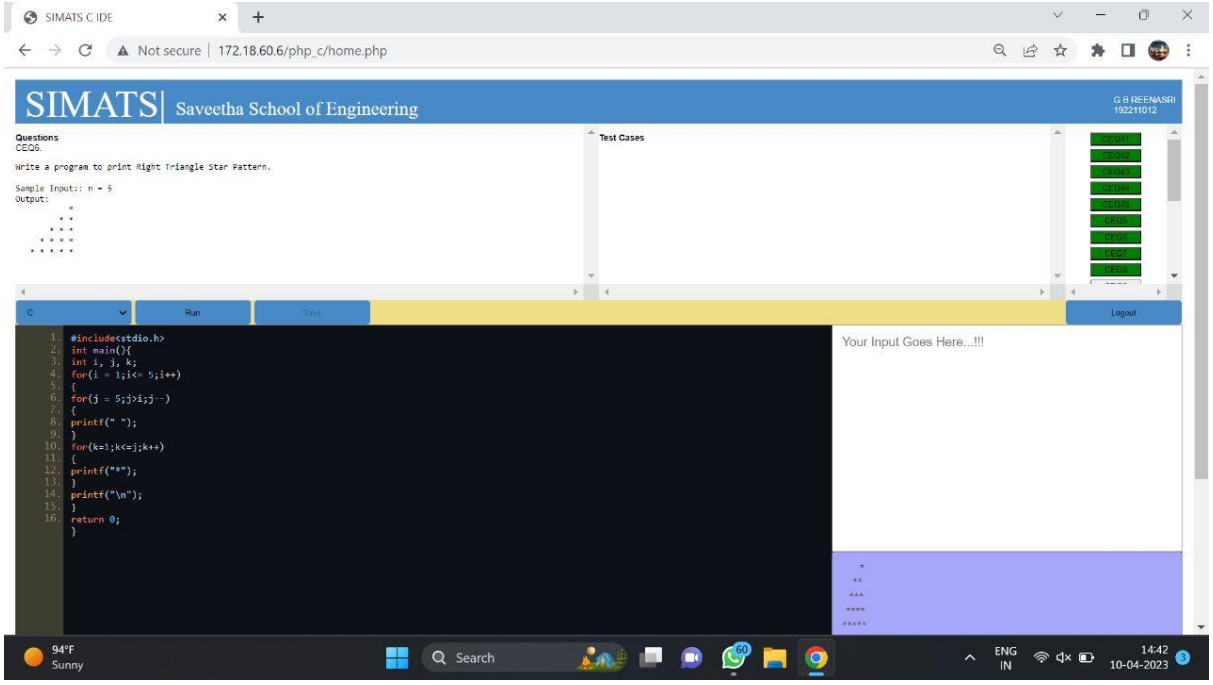
Questions
CEQ44.
Write a program to find the square root of a perfect square number(print both the positive and negative values)
Sample Input:
Enter the number : 6561
Sample Output:
Square Root: 81, -81
Test Cases
1. 1225
2. 9801
3. 1827
4. -100
5. 0
C
Run
Save
Logout
#include<stdio.h>
#include<math.h>
int main(){
int num;
printf("enter a number:");
scanf("%d", &num);
int root = sqrt(num);
if(root * root == num){
printf("square root of %d is %d\n", num, root);
printf("negative square root of %d id%d\n", num, -root);
} else {
printf("%d is not a perfect square\n", num);
}
return 0;
}
6561
enter a number:square root of 6561 is 81
negative square root of 6561 id-81
94°F
Sunny
Search
ENG
IN
14:42
10-04-2023

2

3.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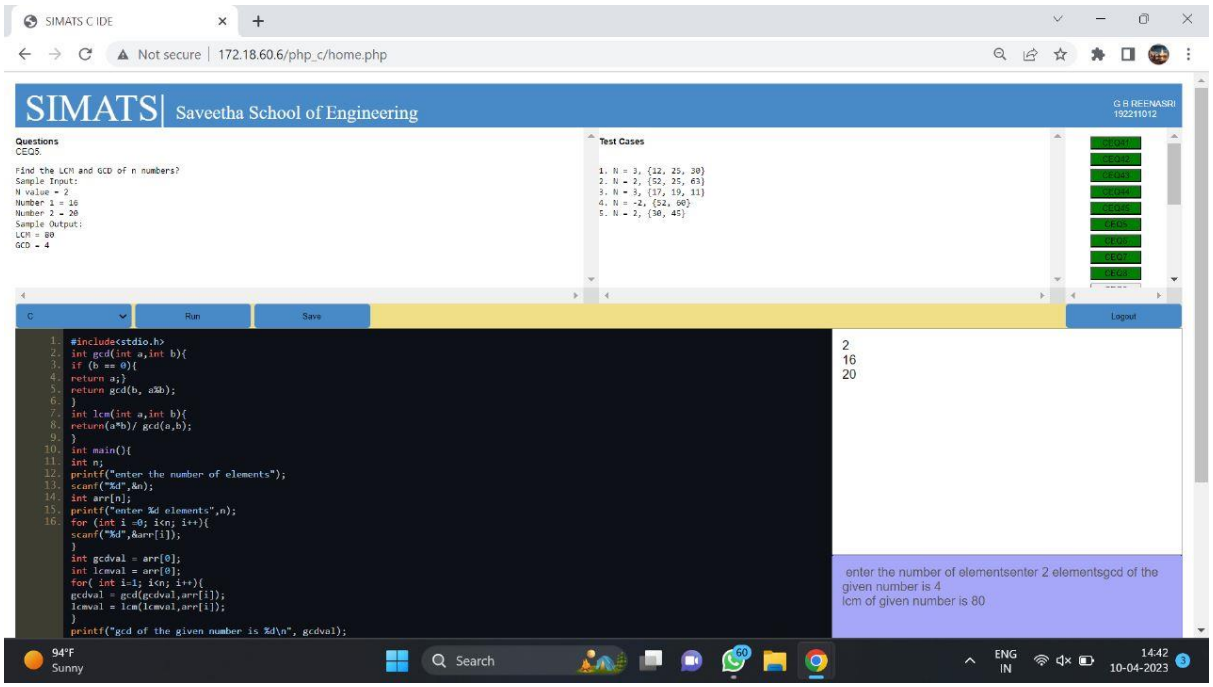
Questions
CEQ6.
Write a program to print Right Triangle Star Pattern.
Sample Input:: n = 5
Output:
Test Cases
C
Run
Logout
#include<stdio.h>
int main(){
int i, j, k;
for(i = 1;i<= 5;i++)
{
for(j = 5;j>i;j--)
{
printf(" ");
}
for(k=1;k<=j;k++)
{
printf("*");
}
printf("\n");
}
return 0;
}
Your Input Goes Here...!!!
94°F
Sunny
Search
ENG
IN
14:42
10-04-2023

4.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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}
C
Run
Save
Logout
#include<stdio.h>
int gcd(int a,int b){
if (b == 0){
return a;}
return gcd(b, a%b);
}
int lcm(int a,int b){
return(a*b)/ gcd(a,b);
}
int main(){
int n;
printf("enter the number of elements");
scanf("%d",&n);
int arr[n];
printf("enter %d elements",n);
for (int i =0; i<n; i++){
scanf("%d",&arr[i]);
}
int gcdval = arr[0];
int lcmval = arr[0];
for(int i=1; i<n; i++){
gcdval = gcd(gcdval,arr[i]);
lcmval = lcm(lcmval,arr[i]);
}
printf("gcd of the given number is %d\n", gcdval);
2
16
20
enter the number of elementsenter 2 elementsgcd of the given number is 4
lcm of given number is 80
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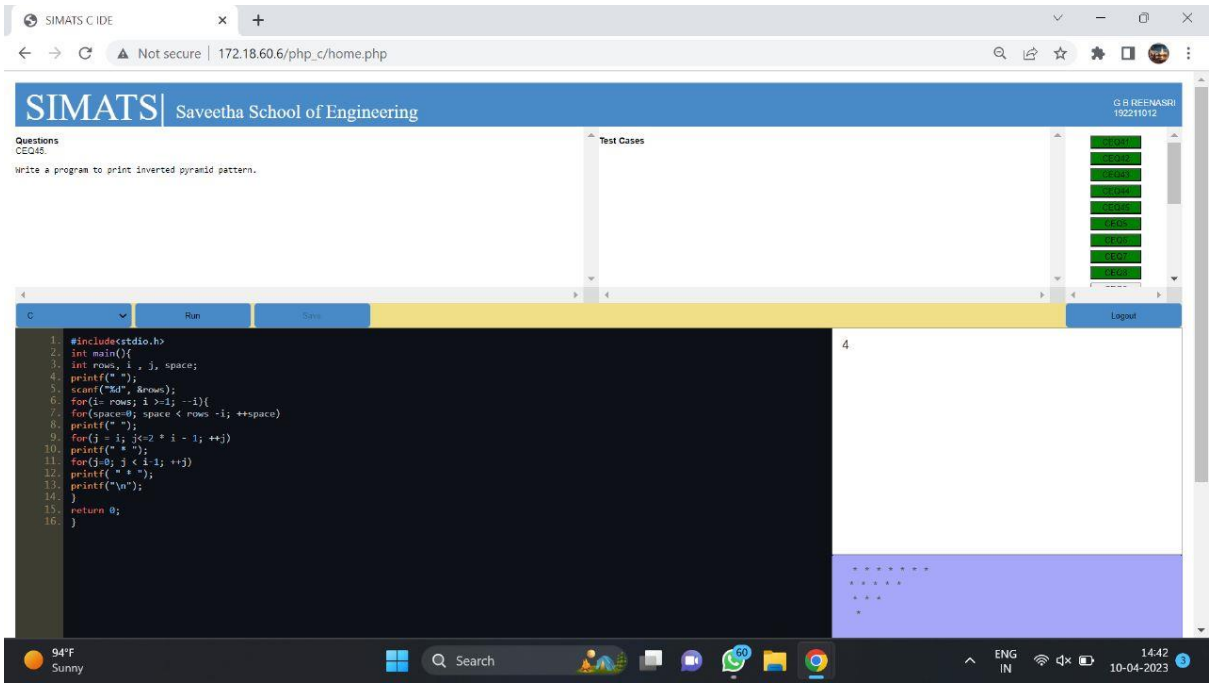
10-04-2023

3

5.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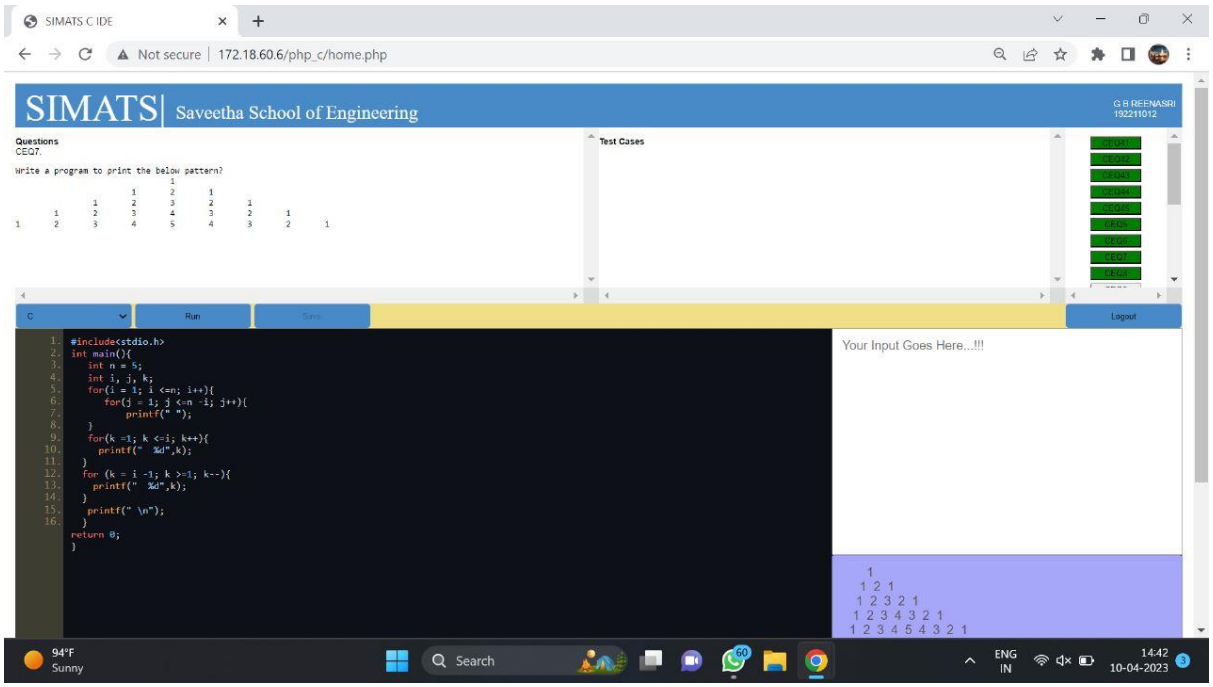
Questions
CEQ45.
Write a program to print inverted pyramid pattern.
Test Cases
C
Run
Logout
#include<stdio.h>
int main(){
int rows, i , j, space;
printf(" ");
scanf("%d", &rows);
for(i= rows; i >=1; --i){
for(space=0; space < rows -i; ++space)
printf(" ");
for(j = i; j<=2 * i - 1; ++j)
printf(" * ");
for(j=0; j < i-1; ++j)
printf(" * ");
printf("\n");
}
return 0;
}
4
* * * * * * *
* * * * *
* * *
*
94°F
Sunny
Search
ENG
IN
14:42
10-04-2023

6.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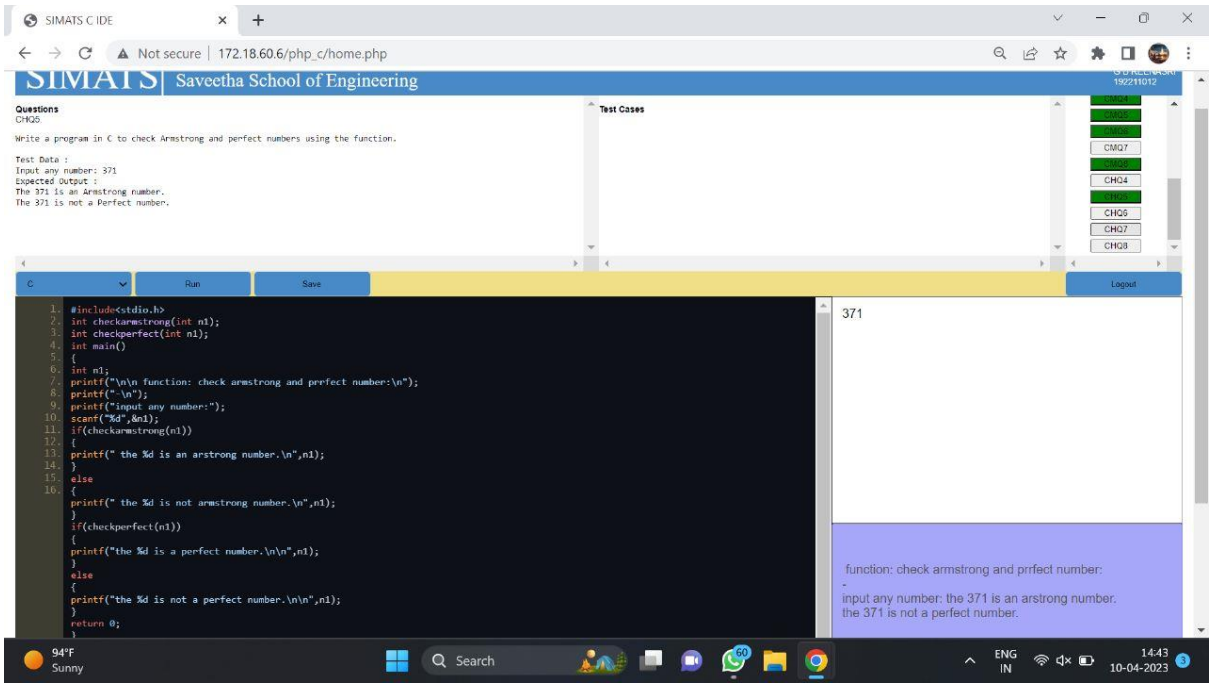
Questions
CEQ7.
Write a program to print the below pattern?
Test Cases
Run
Save
Logout
#include<stdio.h>
int main(){
int n = 5;
int i, j, k;
for(i = 1; i <=n; i++){
for(j = 1; j <=n -i; j++){
printf(" ");
}
for(k =1; k <=i; k++){
printf(" %d",k);
}
for (k = i -1; k >=1; k--){
printf(" %d",k);
}
printf(" \n");
}
return 0;
}
Your Input Goes Here...!!!
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
94°F
Sunny
Search
ENG
IN
14:42
10-04-2023

4

7.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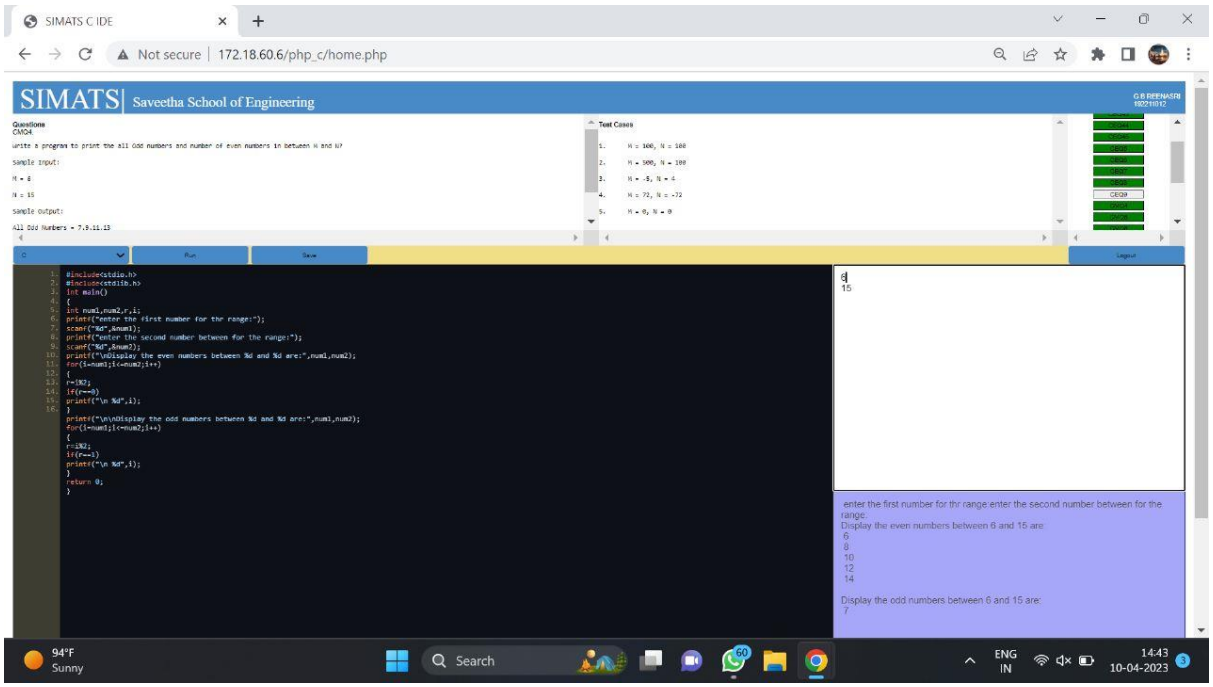
Questions
CHQ5.
Write a program in C to check Armstrong and perfect numbers using the function.
Test Data :
Input any number: 371
Expected Output :
The 371 is an Armstrong number.
The 371 is not a Perfect number.
Test Cases
Run
Save
Logout
#include<stdio.h>
int checkarmstrong(int n1);
int checkperfect(int n1);
int main()
{
int n1;
printf("\n\n function: check armstrong and prrfect number:\n");
printf("-\n");
printf("input any number:");
scanf("%d",&n1);
if(checkarmstrong(n1))
{
printf(" the %d is an arstrong number.\n",n1);
}
else
{
printf(" the %d is not armstrong number.\n",n1);
}
if(checkperfect(n1))
{
printf("the %d is a perfect number.\n\n",n1);
}
else
{
printf("the %d is not a perfect number.\n\n",n1);
}
return 0;
}
371
function: check armstrong and prrfect number:
-
input any number: the 371 is an arstrong number.
the 371 is not a perfect number.
94°F
Sunny
Search
ENG
IN
14:43
10-04-2023

8.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Questions
CMQ4.
Write a program to print the all odd numbers and number of even numbers in between N and M?
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 = -8, N = 4
4. M = 72, N = -72
5. M = 0, N = 0
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 between for the range:");
scanf("%d",&num2);
printf("\nDisplay the even numbers between %d and %d are:",num1,num2);
for(i=num1;i<=num2;i++)
{
r=i%2;
if(r==0)
printf("\n %d",i);
}
printf("\n\nDisplay the odd numbers between %d and %d are:",num1,num2);
for(i=num1;i<=num2;i++)
{
r=i%2;
if(r==1)
printf("\n %d",i);
}
return 0;
}
6
15
enter the first number for thr range:enter the second number between for the range:
Display the even numbers between 6 and 15 are:
6
8
10
12
14
Display the odd numbers between 6 and 15 are:
7
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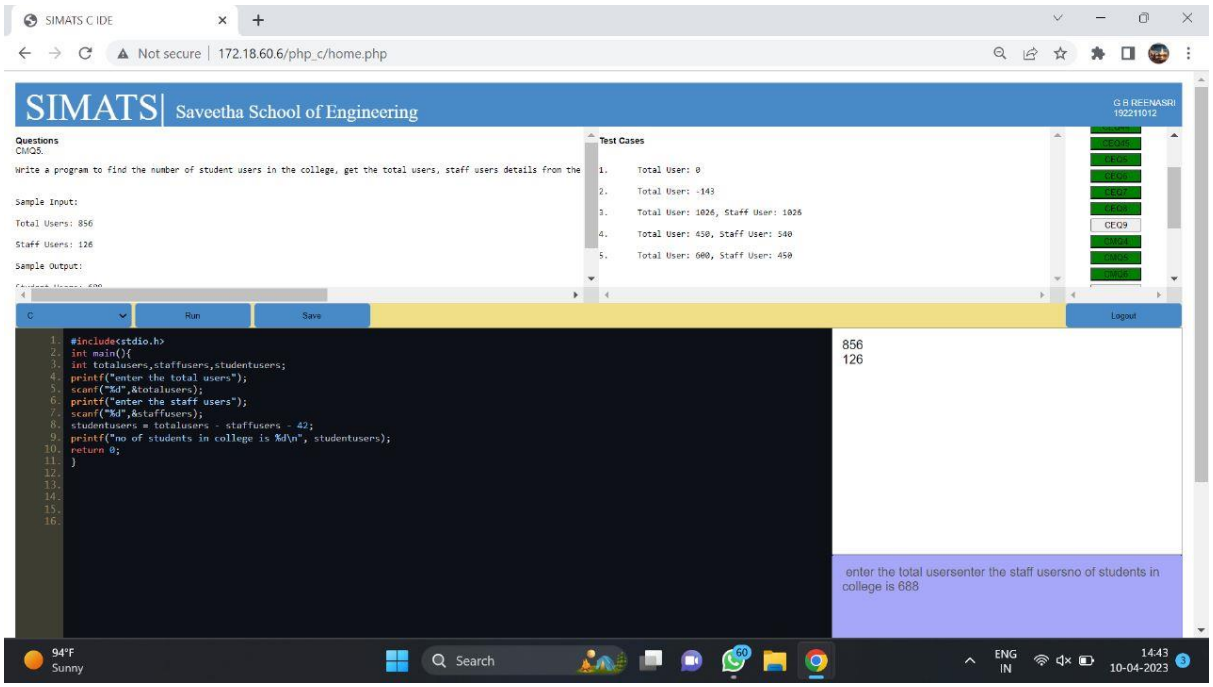
Search
ENG
IN
14:43
10-04-2023

5

9.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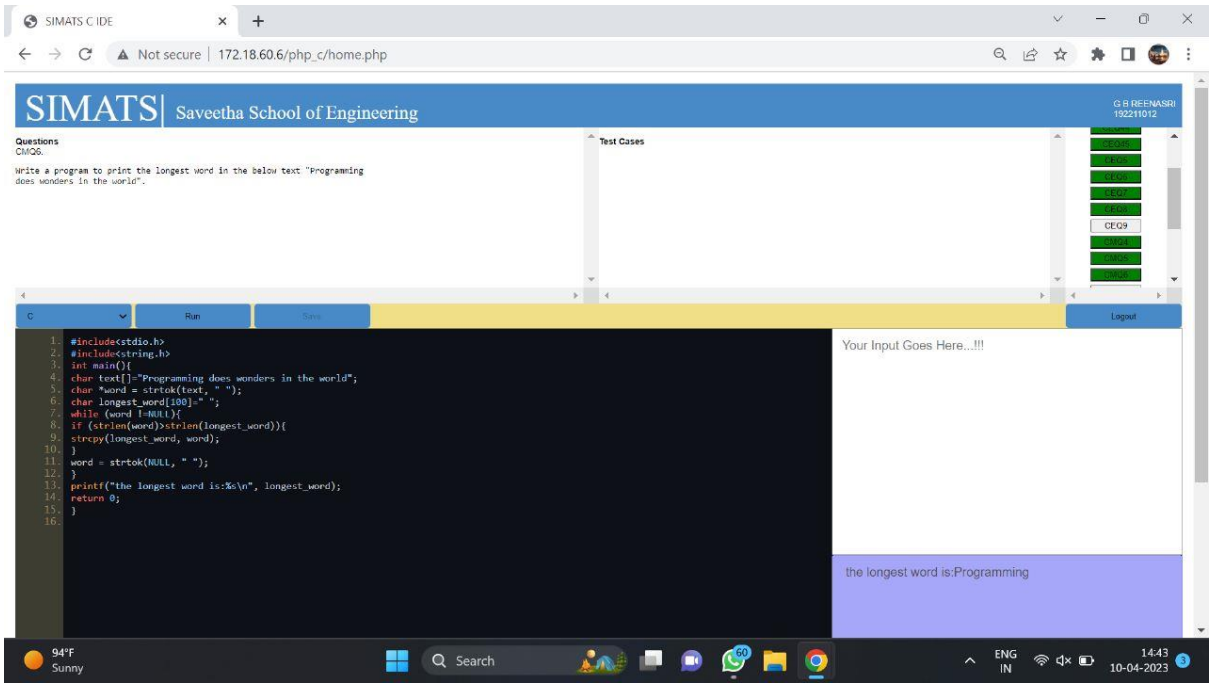
Questions
CMQ5.
Write a program to find the number of student users in the college, get the total users, staff users details from the
Sample Input:
Total Users: 856
Staff Users: 126
Sample Output:
Test Cases
1. Total User: 0
2. Total User: -143
3. Total User: 1026, Staff User: 1026
4. Total User: 430, Staff User: 540
5. Total User: 600, Staff User: 450
C
Run
Save
Logout
#include<stdio.h>
int main(){
int totalusers,staffusers,studentusers;
printf("enter the total users");
scanf("%d",&totalusers);
printf("enter the staff users");
scanf("%d",&staffusers);
studentusers = totalusers - staffusers - 42;
printf("no of students in college is %d\n", studentusers);
return 0;
}
856
126
enter the total usersenter the staff usersno of students in college is 688
94°F
Sunny
Search
ENG
IN
14:43
10-04-2023

10.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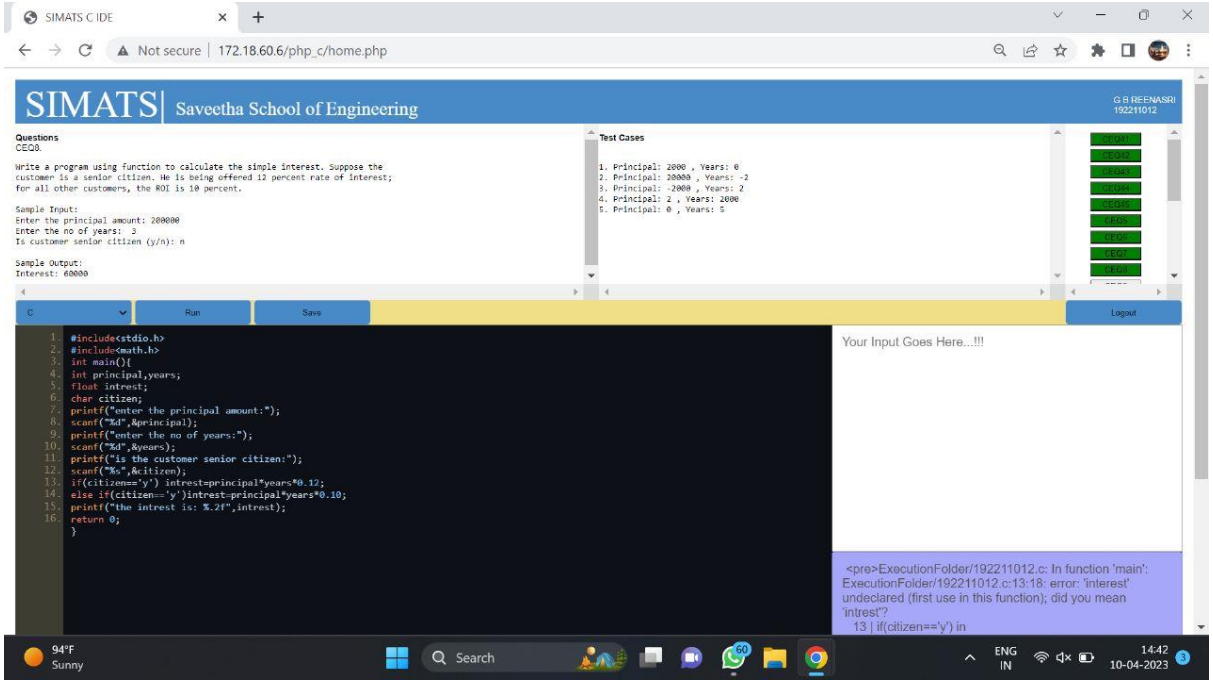
Questions
CMQ6.
Write a program to print the longest word in the below text "Programming does wonders in the world".
Test Cases
Run
Save
Logout
#include<stdio.h>
#include<string.h>
int main(){
char text[]="Programming does wonders in the world";
char *word = strtok(text, " ");
char longest_word[100]=" ";
while (word !=NULL){
if (strlen(word)>strlen(longest_word)){
strcpy(longest_word, word);
}
word = strtok(NULL, " ");
}
printf("the longest word is:%s\n", longest_word);
return 0;
}
Your Input Goes Here...!!!
the longest word is:Programming
94°F
Sunny
Search
ENG
IN
14:43
10-04-2023

6

11.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192211012
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
Run
Save
Logout
#include<stdio.h>
#include<math.h>
int main(){
int principal,years;
float intrest;
char citizen;
printf("enter the principal amount:");
scanf("%d",&principal);
printf("enter the no of years:");
scanf("%d",&years);
printf("is the customer senior citizen:");
scanf("%s",&citizen);
if(citizen=='y') intrest=principal*years*0.12;
else if(citizen=='n')intrest=principal*years*0.10;
printf("the intrest is: %.2f",intrest);
return 0;
}
Your Input Goes Here...!!!
<pre>ExecutionFolder/192211012.c: In function 'main':
ExecutionFolder/192211012.c:13:18: error: 'interest' undeclared (first use in this function); did you mean 'intrest'?
13 | if(citizen=='y') in
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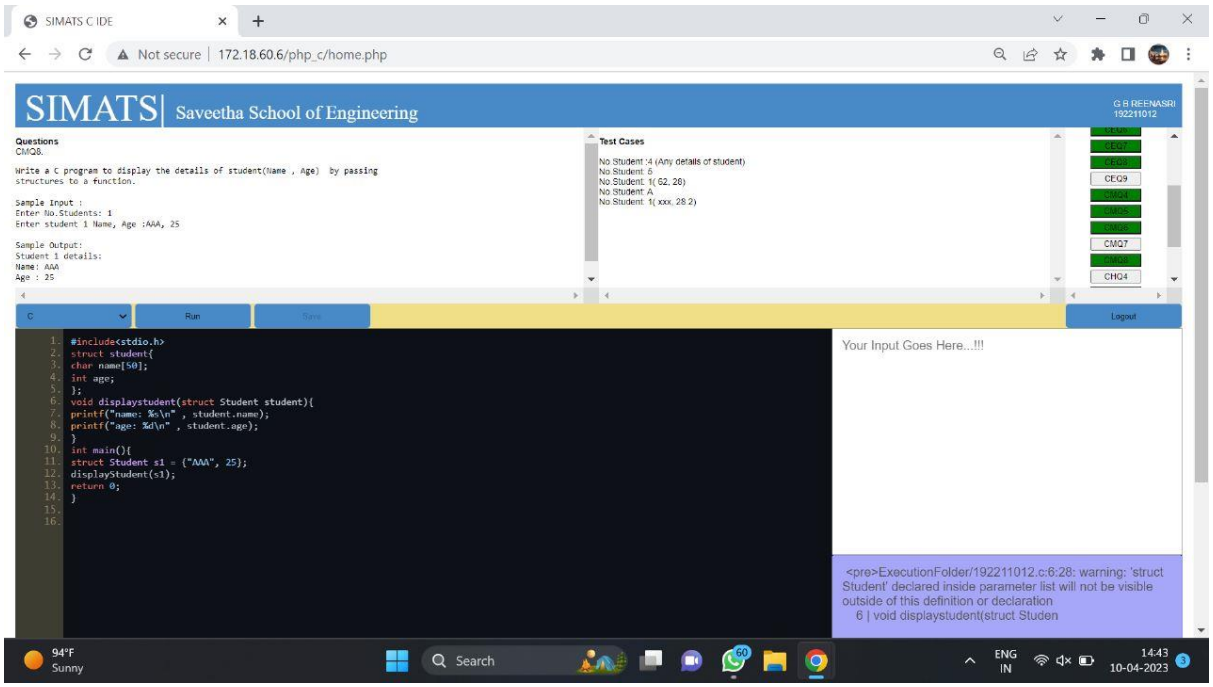
ENG
IN
14:42
10-04-2023

12.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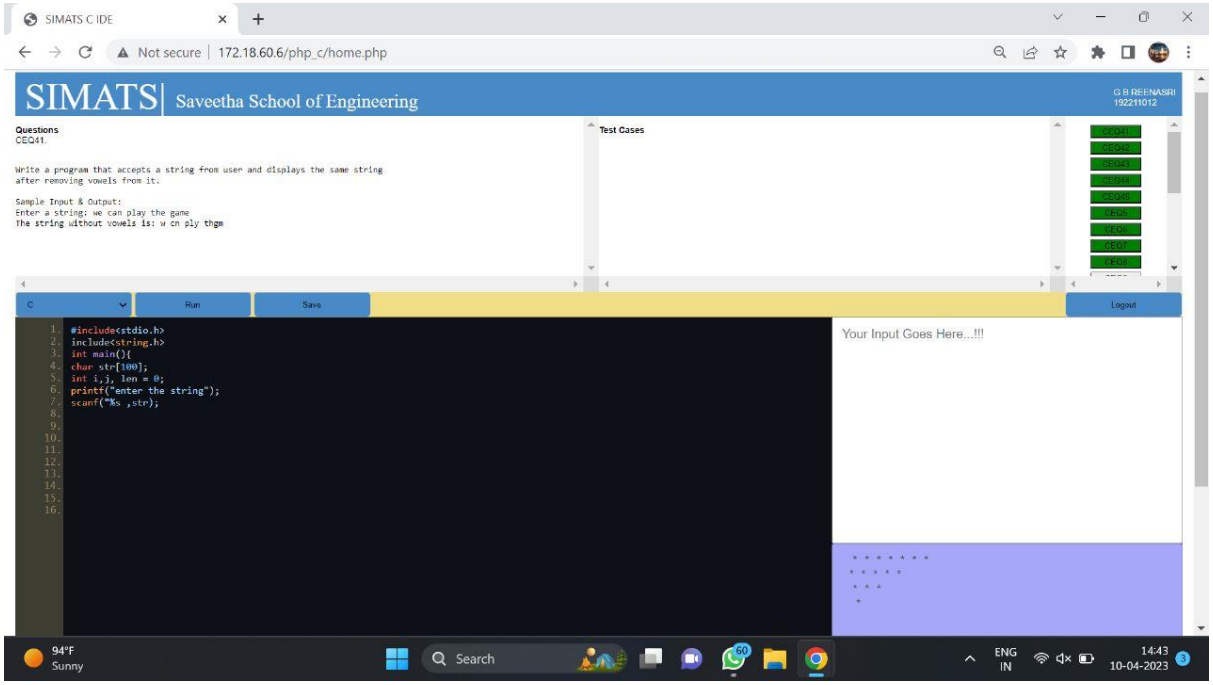
192211012
Questions
CMQ8.
Write a C program to display the details of student(Name , Age) by passing structures to a function.
Sample Input :
Enter No.Students: 1
Enter student 1 Name, Age :AAA, 25
Sample Output:
Student 1 details:
Name: AAA
Age : 25
Test Cases
No.Student :4 (Any details of student)
No.Student :6
No.Student :1(52, 26)
No.Student :A
No.Student :1(xxx, 28.2)
CEQ9
CMQ7
CMQ4
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(){
struct Student s1 = {"AAA", 25};
displayStudent(s1);
return 0;
}
Your Input Goes Here...!!!
<pre>ExecutionFolder/192211012.c:6:28: warning: 'struct Student' declared inside parameter list will not be visible outside of this definition or declaration
6 | void displaystudent(struct Studen
94°F
Sunny
Search
ENG
IN
14:43
10-04-2023

7

14.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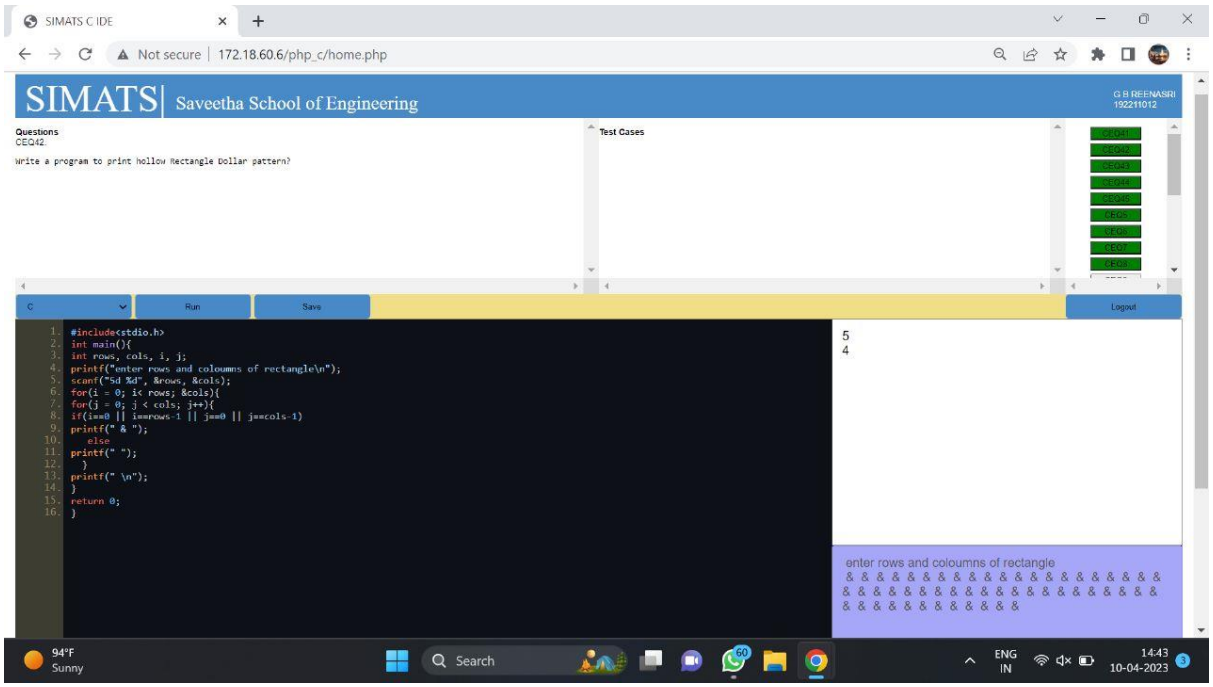
Questions
CEQ41.
Write a program that accepts a string from user and displays the same string after removing vowels from it.
Sample Input & Output:
Enter a string: we can play the game
The string without vowels is: w cn ply thgm
Test Cases
C
Run
Save
Logout
#include<stdio.h>
include<string.h>
int main(){
char str[100];
int i,j, len = 0;
printf("enter the string");
scanf("%s ,str);
Your Input Goes Here...!!!
94°F
Sunny
Search
ENG
IN
14:43
10-04-2023

15.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192211012
Questions
CEQ42
Write a program to print hollow Rectangle Dollar pattern?
Test Cases
C
Run
Save
Logout
#include<stdio.h>
int main(){
int rows, cols, i, j;
printf("enter rows and coloumns of rectangle\n");
scanf("%d %d", &rows, &cols);
for(i = 0; i< rows; &cols){
for(j = 0; j < cols; j++){
if(i==0 || i==rows-1 || j==0 || j==cols-1)
printf(" & ");
else
printf(" ");
}
printf(" \n");
}
return 0;
}
5
4
enter rows and coloumns of rectangle
& & & & & & & & & & & & & & & & & & & &
& & & & & & & & & & & & & & & & & & & &
& & & & & & & & & & &
94°F
Sunny
Search
ENG
IN
14:43
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