Pagidala Madeena

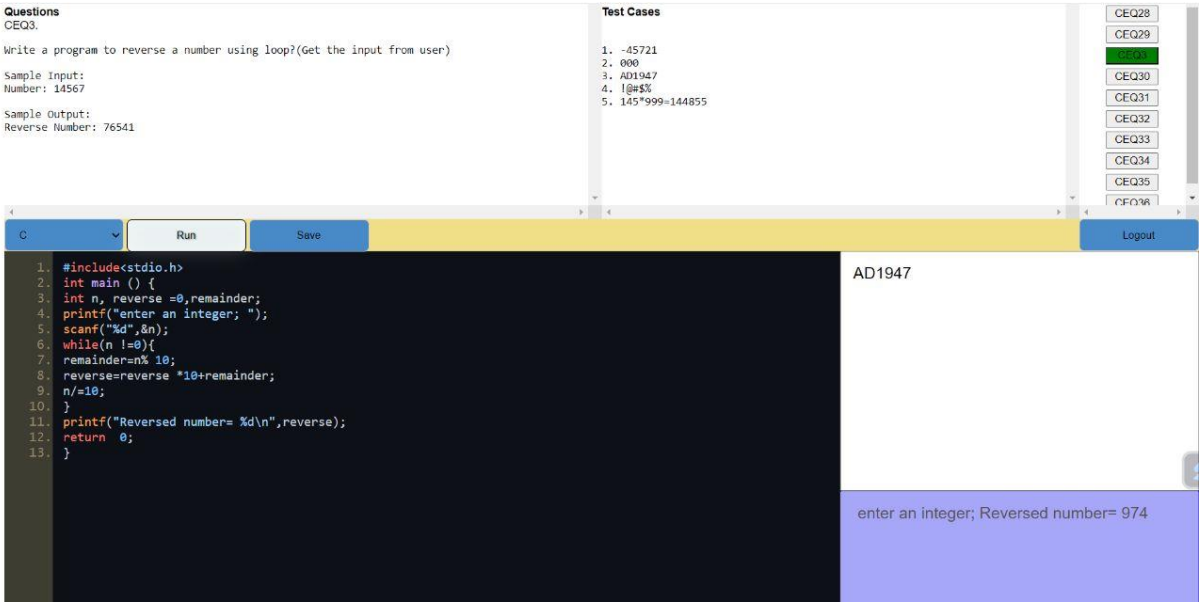
192211011

DAY-3 [FN]

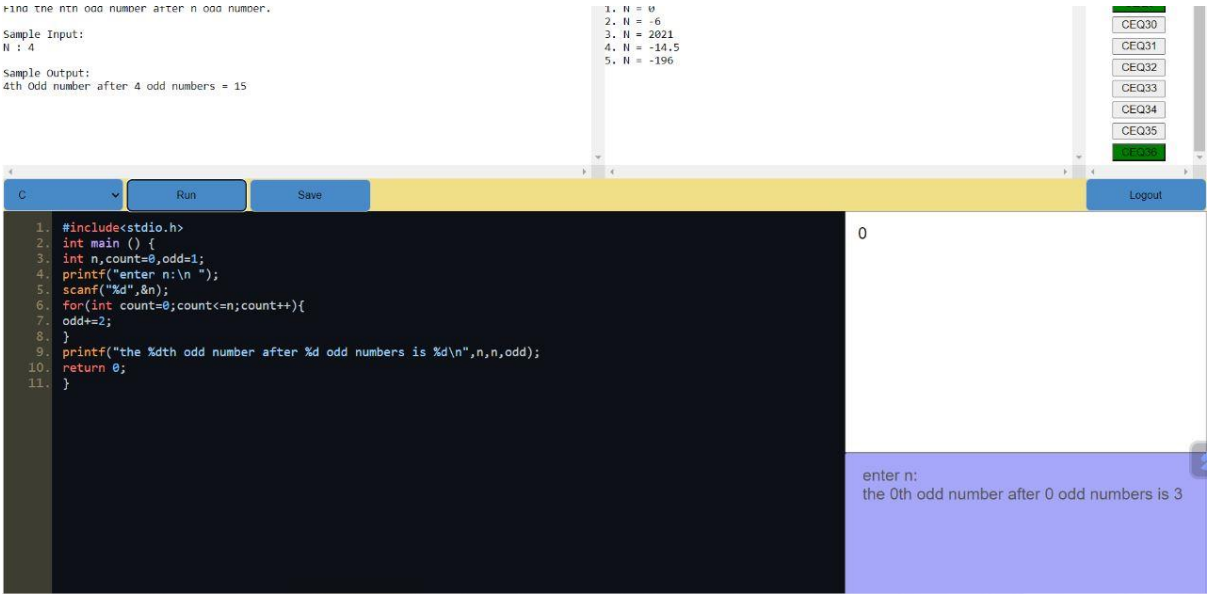
C-PROGRAMMING

TEAM: 5

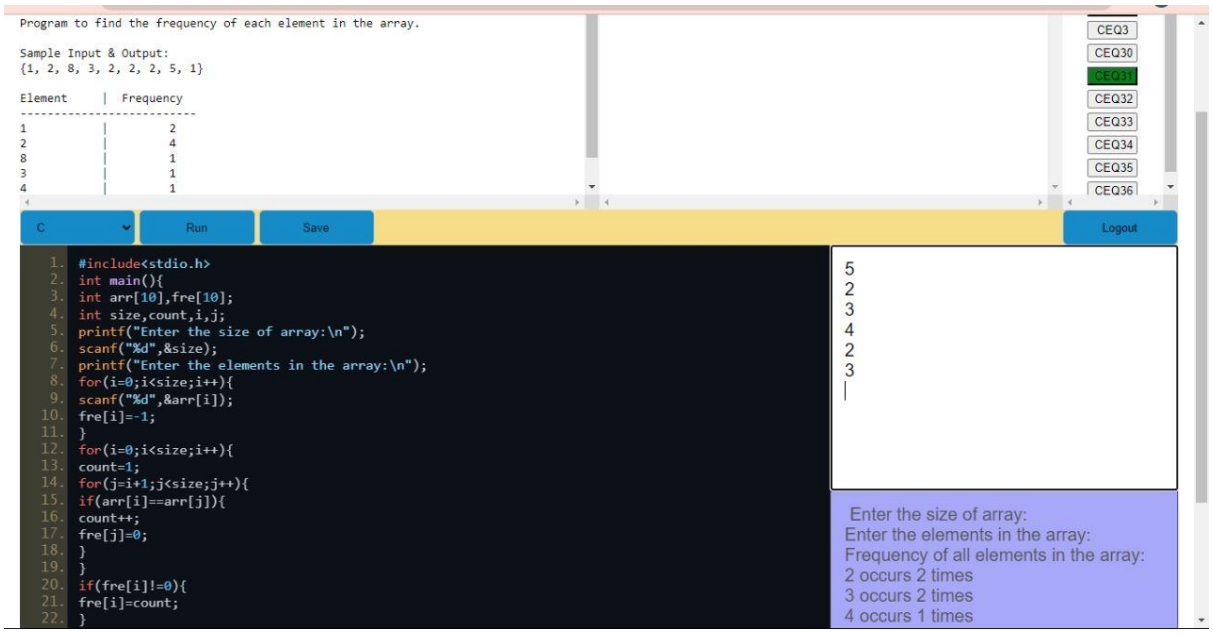
[CSA0265]



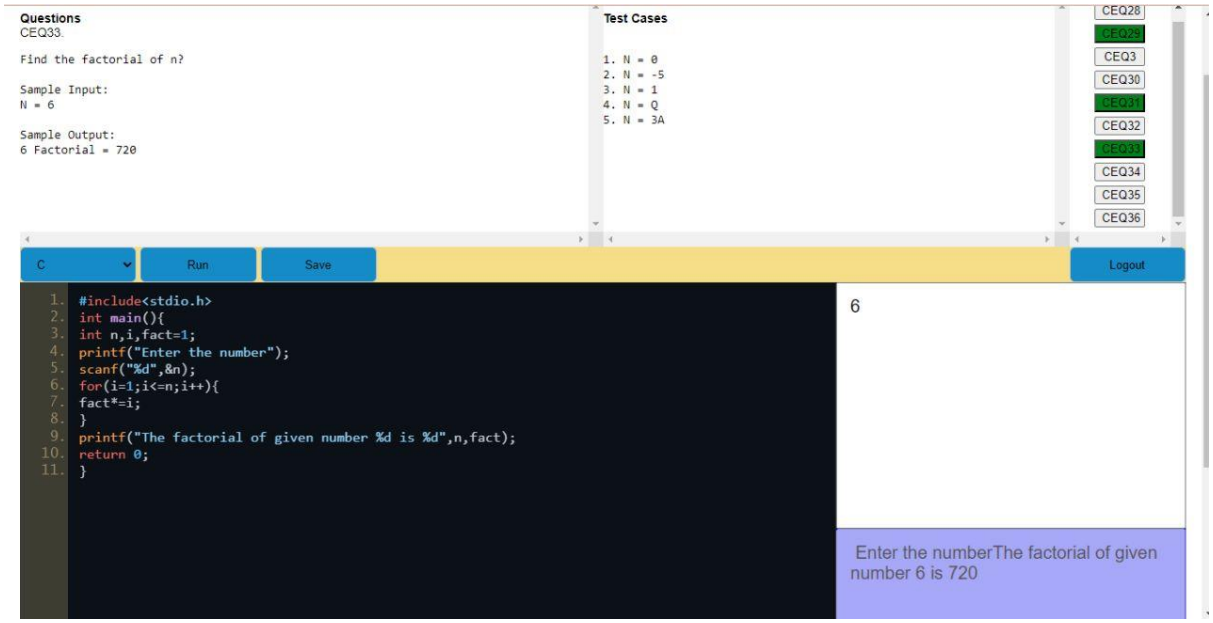
Q.1


Find the nth odd number after n odd number.
Sample Input:
N : 4
Sample Output:
4th Odd number after 4 odd numbers = 15
1. N = 0
2. N = -6
3. N = 2021
4. N = -14.5
5. N = -196
CEQ30
CEQ31
CEQ32
CEQ33
CEQ34
CEQ35
C
Run
Save
Logout
#include<stdio.h>
int main () {
int n,count=0,odd=1;
printf("enter n:\n ");
scanf("%d",&n);
for(int count=0;count<=n;count++){
odd+=2;
}
printf("the %dth odd number after %d odd numbers is %d\n",n,n,odd);
return 0;
}
0
enter n:
the 0th odd number after 0 odd numbers is 3

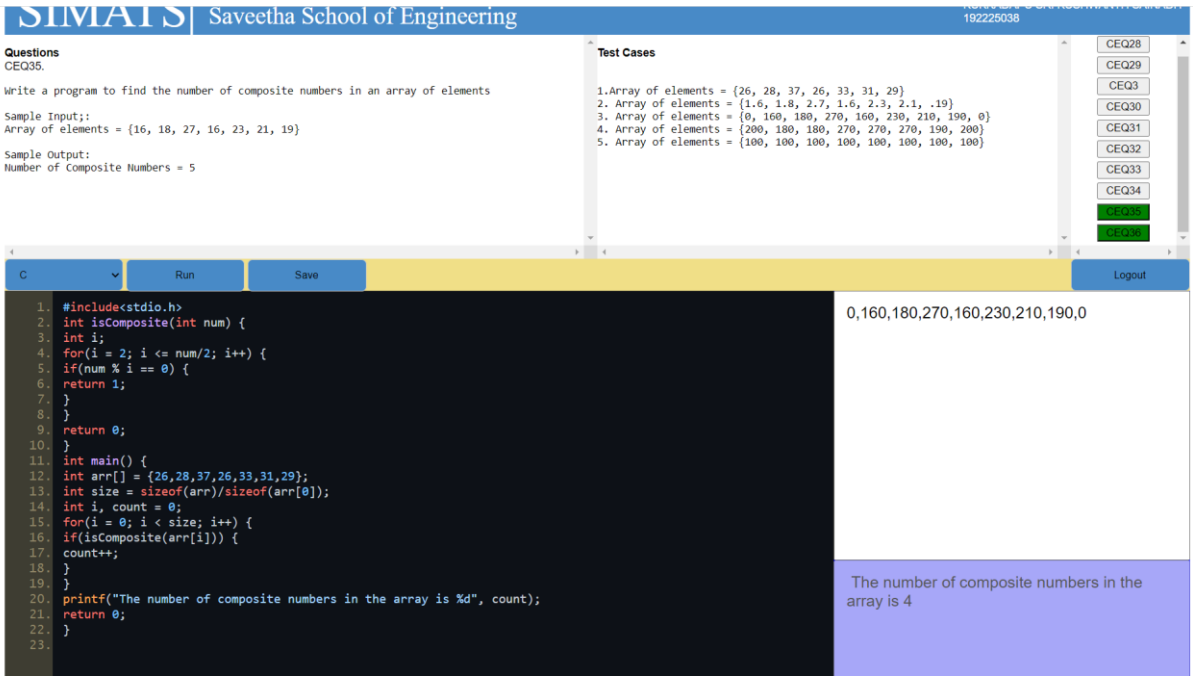
Q.2


Program to find the frequency of each element in the array.
Sample Input & Output:
{1, 2, 8, 3, 2, 2, 2, 5, 1}
Element | Frequency
1 | 2
2 | 4
8 | 1
3 | 1
4 | 1
CEQ3
CEQ30
CEQ31
CEQ32
CEQ33
CEQ34
CEQ35
CEQ36
C
Run
Save
Logout
#include<stdio.h>
int main(){
int arr[10],fre[10];
int size,count,i,j;
printf("Enter the size of array:\n");
scanf("%d",&size);
printf("Enter the elements in the array:\n");
for(i=0;i<size;i++){
scanf("%d",&arr[i]);
fre[i]=-1;
}
for(i=0;i<size;i++){
count=1;
for(j=i+1;j<size;j++){
if(arr[i]==arr[j]){
count++;
fre[j]=0;
}
}
if(fre[i]!=0){
fre[i]=count;
}
5
2
3
4
2
3
Enter the size of array:
Enter the elements in the array:
Frequency of all elements in the array:
2 occurs 2 times
3 occurs 2 times
4 occurs 1 times

Q.3


Questions
CEQ33.
Find the factorial of n?
Sample Input:
N = 6
Sample Output:
6 Factorial = 720
Test Cases
1. N = 0
2. N = -5
3. N = 1
4. N = Q
5. N = 3A
CEQ28
CEQ29
CEQ3
CEQ30
CEQ31
CEQ32
CEQ33
CEQ34
CEQ35
CEQ36
C
Run
Save
Logout
#include<stdio.h>
int main(){
int n,i,fact=1;
printf("Enter the number");
scanf("%d",&n);
for(i=1;i<=n;i++){
fact*=i;
}
printf("The factorial of given number %d is %d",n,fact);
return 0;
}
6
Enter the numberThe factorial of given number 6 is 720

Q.4


SIMATS
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Questions
CEQ35.
Write a program to find the number of composite numbers in an array of elements
Sample Input;:
Array of elements = {16, 18, 27, 16, 23, 21, 19}
Sample Output:
Number of Composite Numbers = 5
Test Cases
1.Array of elements = {26, 28, 37, 26, 33, 31, 29}
2. Array of elements = {1.6, 1.8, 2.7, 1.6, 2.3, 2.1, .19}
3. Array of elements = {0, 160, 180, 270, 160, 230, 210, 190, 0}
4. Array of elements = {200, 180, 180, 270, 270, 270, 190, 200}
5. Array of elements = {100, 100, 100, 100, 100, 100, 100, 100}
CEQ28
CEQ29
CEQ3
CEQ30
CEQ31
CEQ32
CEQ33
CEQ34
CEQ35
CEQ36
C
Run
Save
Logout
#include<stdio.h>
int isComposite(int num) {
int i;
for(i = 2; i <= num/2; i++) {
if(num % i == 0) {
return 1;
}
}
return 0;
}
int main() {
int arr[] = {26,28,37,26,33,31,29};
int size = sizeof(arr)/sizeof(arr[0]);
int i, count = 0;
for(i = 0; i < size; i++) {
if(isComposite(arr[i])) {
count++;
}
}
printf("The number of composite numbers in the array is %d", count);
return 0;
}
0,160,180,270,160,230,210,190,0
The number of composite numbers in the array is 4

Q.5

Questions
CEQ36.

Find the nth odd number after n odd number.

Sample Input:
N : 4

Sample Output:
4th Odd number after 4 odd numbers = 15

Test Cases

1. N = 0
2. N = -6
3. N = 2021
4. N = -14.5
5. N = -196

CEQ29 CEQ3 CEQ30 CEQ31 CEQ32 CEQ33 CEQ34 CEQ35 CEQ36

C | Run | Save | Logout

```c
#include<stdio.h>
int main() {
int n, nthOddNum;
printf("enter the value of n: ");
scanf("%d", &n);
nthOddNum = (n*2) + 1;
printf("the %dth odd number after %d odd number is %d", n, n, nthOddNum);
return 0;
}
```

0

enter the value of n: the 0th odd number after 0 odd number is 1

Q.6

Write a program to print the below pattern.

```
1
2  2
3  3  3
4  4  4  4
```

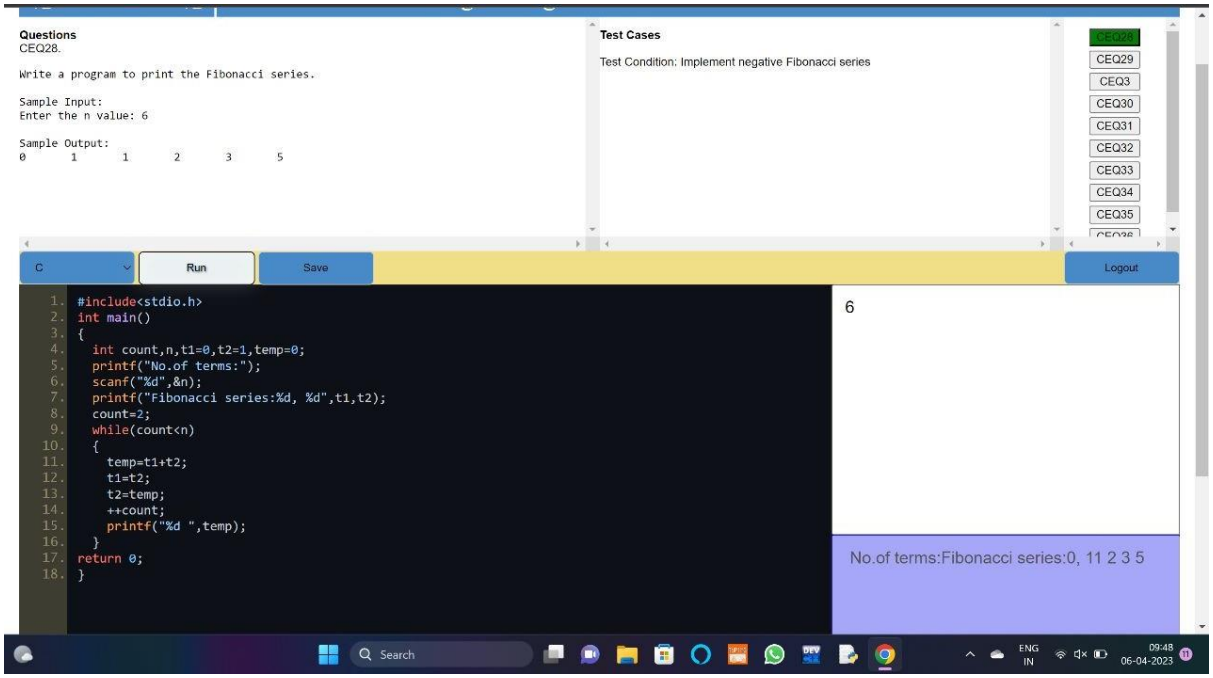
C | Run | Save

```c
#include<stdio.h>
int main(){
int i,j,rows;
printf("Enter the number of rows:\n");
scanf("%d",&rows);
for(i=1;i<=rows;i++){
for(j=1;j<=i;j++){
printf("%d",i);
}printf("\n");
}
return 0;
}
```

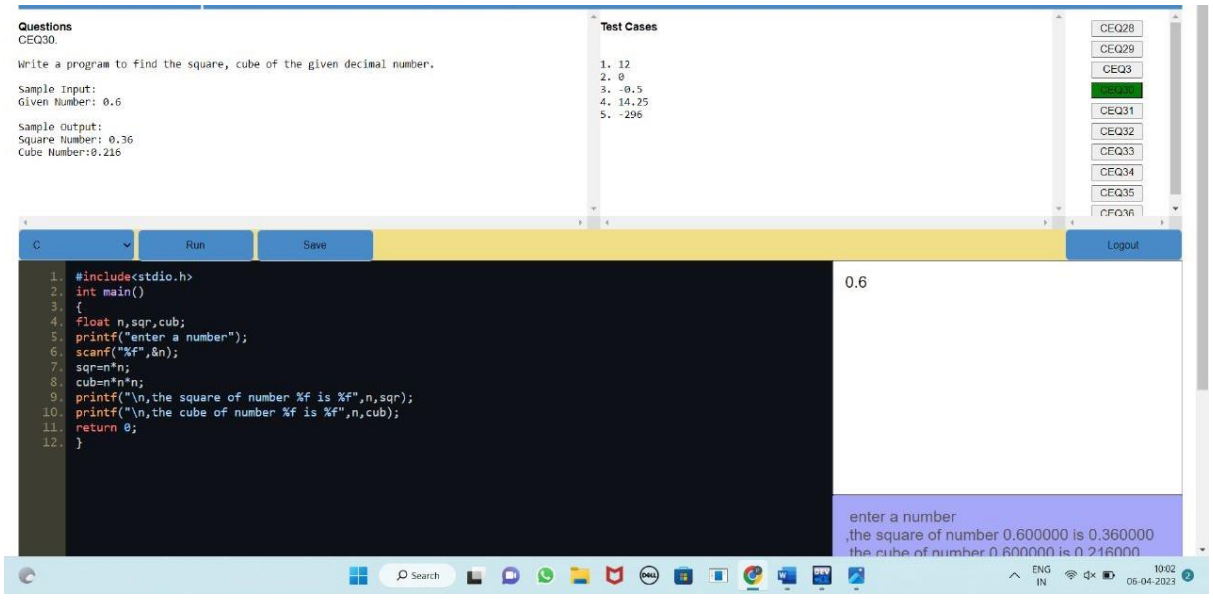
4

Enter the number of rows:
1
22
333
4444

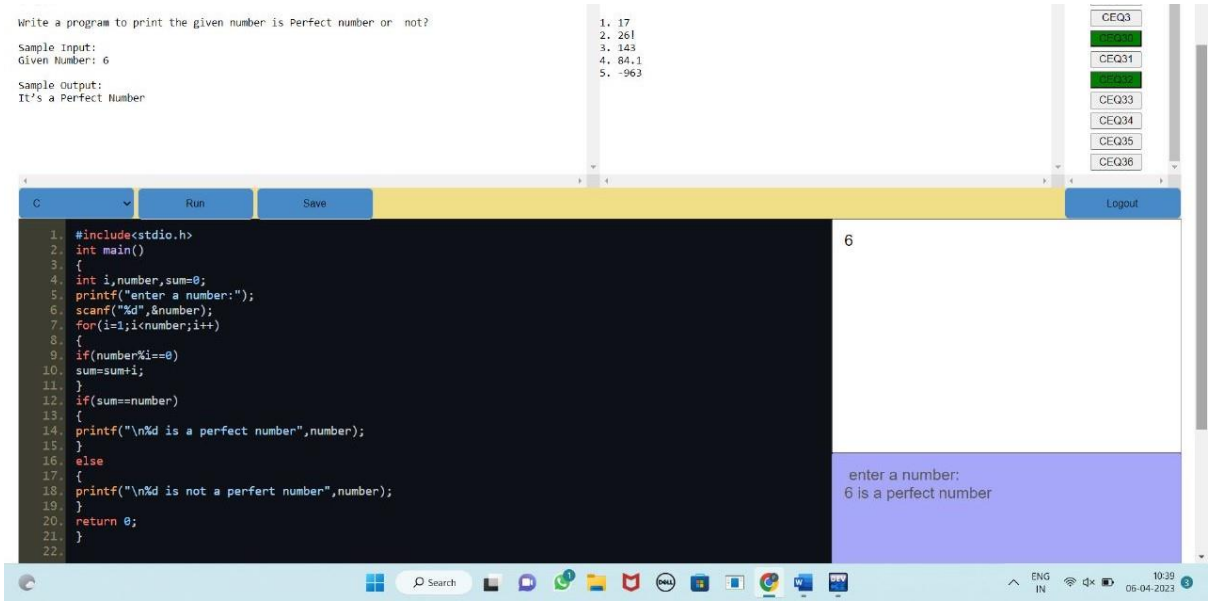
Q7


Questions
CEQ28.
Write a program to print the Fibonacci series.
Sample Input:
Enter the n value: 6
Sample Output:
0 1 1 2 3 5
Test Cases
Test Condition: Implement negative Fibonacci series
CEQ28
CEQ29
CEQ3
CEQ30
CEQ31
CEQ32
CEQ33
CEQ34
CEQ35
C
Run
Save
Logout
#include<stdio.h>
int main()
{
int count,n,t1=0,t2=1,temp=0;
printf("No.of terms:");
scanf("%d",&n);
printf("Fibonacci series:%d, %d",t1,t2);
count=2;
while(count<n)
{
temp=t1+t2;
t1=t2;
t2=temp;
++count;
printf("%d ",temp);
}
return 0;
}
6
No.of terms:Fibonacci series:0, 11 2 3 5
Search
ENG
IN
09:48
06-04-2023

Q8


Questions
CEQ30.
Write a program to find the square, cube of the given decimal number.
Sample Input:
Given Number: 0.6
Sample Output:
Square Number: 0.36
Cube Number:0.216
Test Cases
1. 12
2. 0
3. -0.5
4. 14.25
5. -296
CEQ28
CEQ29
CEQ3
CEQ30
CEQ31
CEQ32
CEQ33
CEQ34
CEQ35
C
Run
Save
Logout
#include<stdio.h>
int main()
{
float n,sqr,cub;
printf("enter a number");
scanf("%f",&n);
sqr=n*n;
cub=n*n*n;
printf("\n,the square of number %f is %f",n,sqr);
printf("\n,the cube of number %f is %f",n,cub);
return 0;
}
0.6
enter a number
,the square of number 0.600000 is 0.360000
,the cube of number 0.600000 is 0.216000
Search
ENG
IN
10:02
06-04-2023

Q9

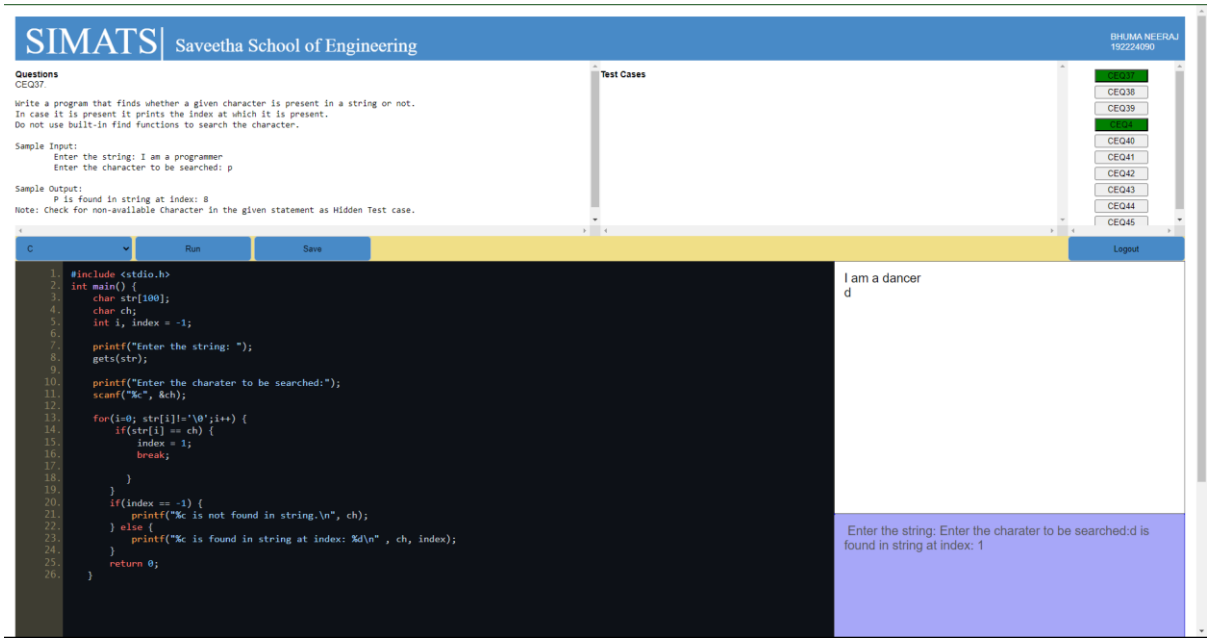


Q10

DAY – 3 Practice [AN]

C-PROGRAMMING TEAM: 5

[CSA0265]


SIMATS
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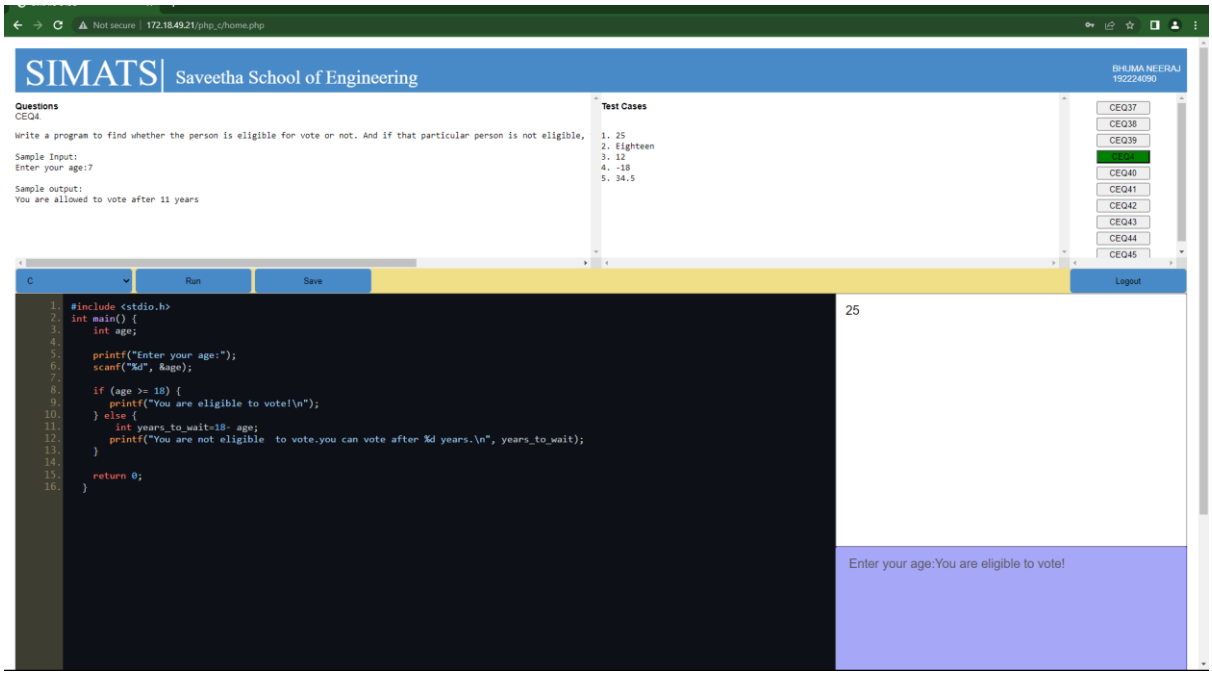
192224090
Questions
CEQ37
Write a program that finds whether a given character is present in a string or not.
In case it is present it prints the index at which it is present.
Do not use built-in find functions to search the character.
Sample Input:
Enter the string: I am a programmer
Enter the character to be searched: p
Sample Output:
P is found in string at index: 8
Note: Check for non-available Character in the given statement as Hidden Test case.
Test Cases
CEQ37
CEQ38
CEQ39
CEQ40
CEQ41
CEQ42
CEQ43
CEQ44
CEQ45
C
Run
Save
Logout
#include <stdio.h>
int main() {
char str[100];
char ch;
int i, index = -1;
printf("Enter the string: ");
gets(str);
printf("Enter the charater to be searched:");
scanf("%c", &ch);
for(i=0; str[i]!='\0';i++) {
if(str[i] == ch) {
index = i;
break;
}
}
if(index == -1) {
printf("%c is not found in string.\n", ch);
} else {
printf("%c is found in string at index: %d\n" , ch, index);
}
return 0;
}
I am a dancer
d
Enter the string: Enter the charater to be searched:d is found in string at index: 1

Q.1


Not secure | 172.18.49.21/php_c/home.php
SIMATS
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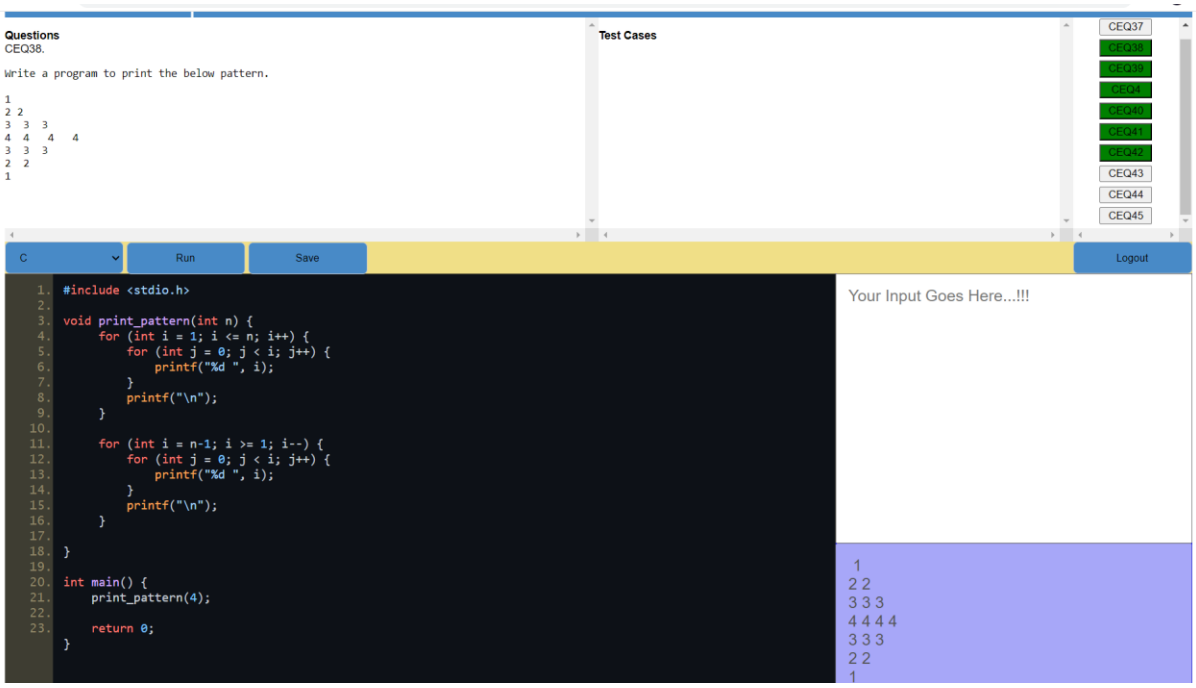
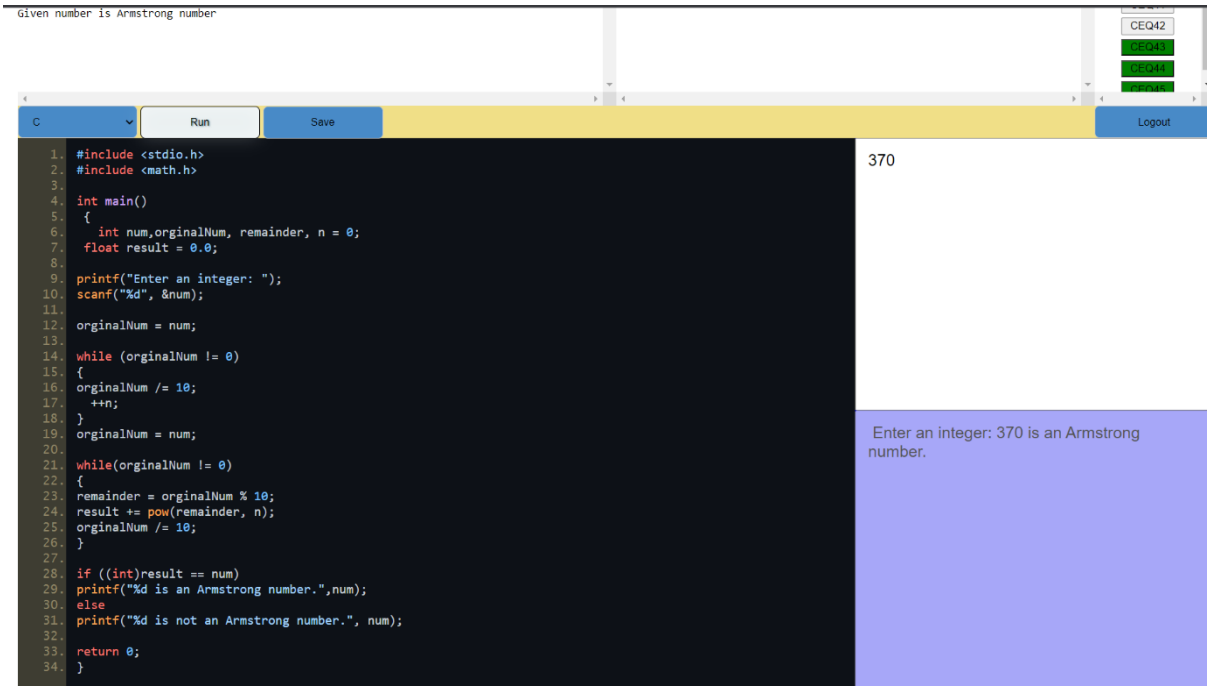
192224090
Questions
CEQ4
Write a program to find whether the person is eligible for vote or not. And if that particular person is not eligible,
Sample Input:
Enter your age:7
Sample output:
You are allowed to vote after 11 years
Test Cases
1. 25
2. Eighteen
3. 12
4. -18
5. 34.5
CEQ37
CEQ38
CEQ39
CEQ4
CEQ40
CEQ41
CEQ42
CEQ43
CEQ44
CEQ45
C
Run
Save
Logout
#include <stdio.h>
int main() {
int age;
printf("Enter your age:");
scanf("%d", &age);
if (age >= 18) {
printf("You are eligible to vote!\n");
} else {
int years_to_wait=18- age;
printf("You are not eligible to vote.you can vote after %d years.\n", years_to_wait);
}
return 0;
}
25
Enter your age:You are eligible to vote!

Q.2


Questions
CEQ38.
Write a program to print the below pattern.
1
2 2
3 3 3
4 4 4 4
3 3 3
2 2
1
Test Cases
CEQ37
CEQ38
CEQ39
CEQ4
CEQ40
CEQ41
CEQ42
CEQ43
CEQ44
CEQ45
C
Run
Save
Logout
#include <stdio.h>
void print_pattern(int n) {
for (int i = 1; i <= n; i++) {
for (int j = 0; j < i; j++) {
printf("%d ", i);
}
printf("\n");
}
for (int i = n-1; i >= 1; i--) {
for (int j = 0; j < i; j++) {
printf("%d ", i);
}
printf("\n");
}
}
int main() {
print_pattern(4);
return 0;
}
Your Input Goes Here...!!!
1
2 2
3 3 3
4 4 4 4
3 3 3
2 2
1

Q.3


Given number is Armstrong number
CEQ42
CEQ43
CEQ44
C
Run
Save
Logout
#include <stdio.h>
#include <math.h>
int main()
{
int num,orginalNum, remainder, n = 0;
float result = 0.0;
printf("Enter an integer: ");
scanf("%d", &num);
orginalNum = num;
while (orginalNum != 0)
{
orginalNum /= 10;
++n;
}
orginalNum = num;
while(orginalNum != 0)
{
remainder = orginalNum % 10;
result += pow(remainder, n);
orginalNum /= 10;
}
if ((int)result == num)
printf("%d is an Armstrong number.",num);
else
printf("%d is not an Armstrong number.", num);
return 0;
}
370
Enter an integer: 370 is an Armstrong number.

Q.4

Questions
CEQ40.

Write a program to arrange the letters of the word alphabetically in reverse order.

Sample Input:
Enter the word : MOSQUE

Sample Output:
Alphabetical Order: U S Q O M E

Test Cases

1. HYPOTHECATION
2. MATRICULATION
3. MANIPULATION
4. SATISFACTION
5. DEDICATION

CEQ37 CEQ38 CEQ39 CEQ4 CEQ40 CEQ41 CEQ42 CEQ43 CEQ44

C | Run | Save | Logout

```c
#include <stdio.h>
#include <string.h>

int main() {
char word[100];
printf("Enter a word: ");
scanf("%s", word);

int n = strlen(word);

for(int i = 0; i < n-1; i++) {
for(int j = 0; j < n-i-1; j++) {
if (word[j] < word[j+1]) {
char temp = word[j];
word[j] = word[j+1];
word[j+1] = temp;
}
}
}

printf("Letters arranged alphabetically in reverse order: ");
for (int i = n-1; i >= 0; i--) {
printf("%c", word[i]);
}
printf("\n");
return 0;
}
```

DEDICATION

Enter a word: Letters arranged alphabetically in reverse order: ACDDEIINOT

Q.5

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KUKKADAPU SRI KUSHWANTH SAINADH
192225038

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

CEQ37 CEQ38 CEQ39 CEQ4 CEQ40 CEQ41 CEQ42 CEQ43 CEQ44

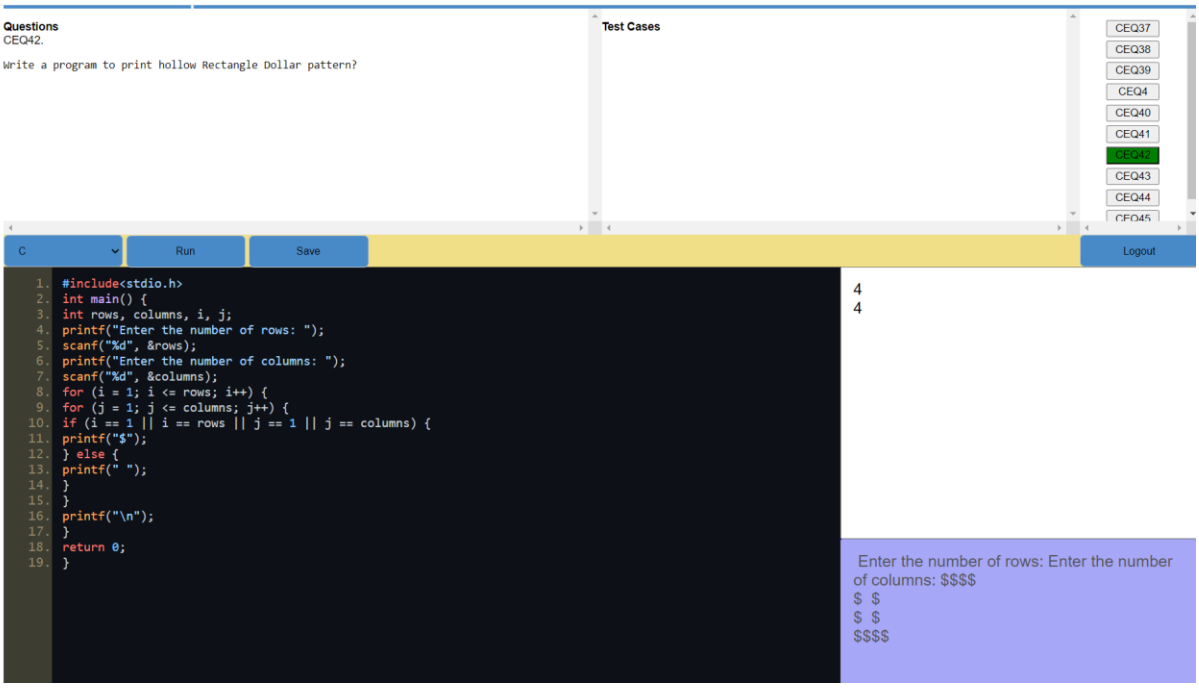
C | Run | Save | Logout

```c
#include<stdio.h>
#include<string.h>
int main() {
char str[100];
int i, j = 0;
printf("Enter a string: ");
fgets(str, 100, stdin);
for (i = 0; str[i] != '\0'; i++) {
if (str[i] != 'a' && str[i] != 'e' && str[i] != 'i' && str[i] != 'o' && str[i] != 'u' && str[i] != 'A' && str[
str[j] = str[i];
j++;
}
}
str[j] = '\0';
printf("String without vowels: %s", str);
return 0;
}
```

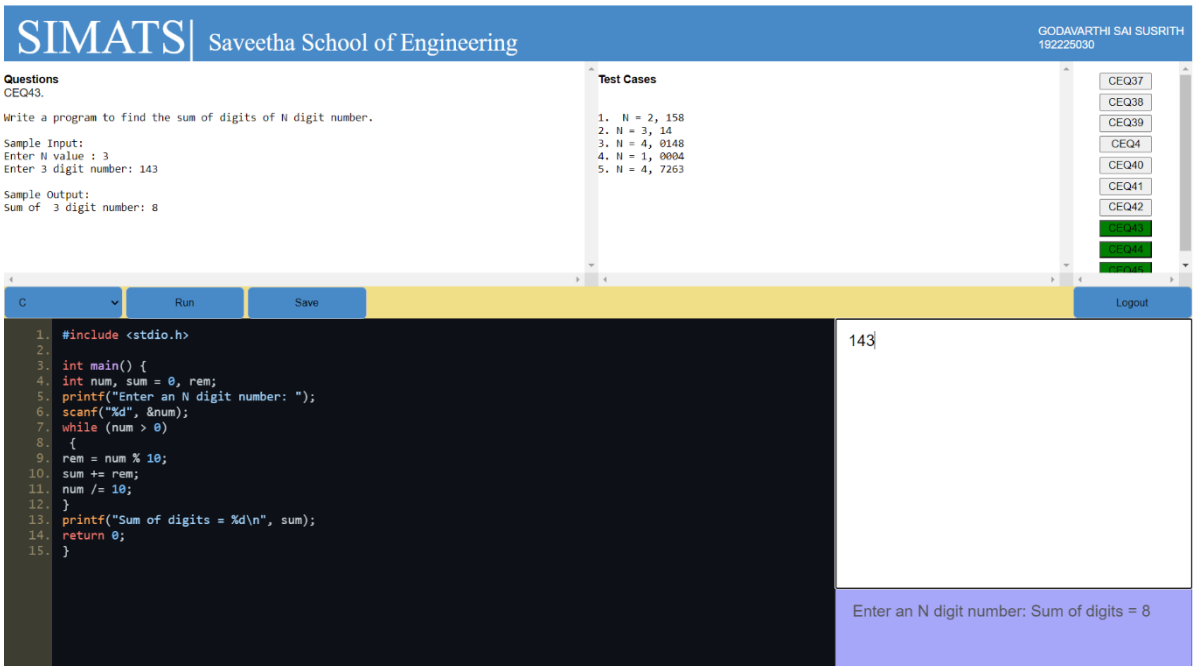
Your Input Goes Here...!!!

<pre>C:/CCPPComp/CCPP6/bin/../lib/gcc/x86_64-w64-mingw32/10.3.0/../../../../x86_64-w64-

Q.6


Questions
CEQ42.
Write a program to print hollow Rectangle Dollar pattern?
Test Cases
CEQ37
CEQ38
CEQ39
CEQ4
CEQ40
CEQ41
CEQ42
CEQ43
CEQ44
C
Run
Save
Logout
#include<stdio.h>
int main() {
int rows, columns, i, j;
printf("Enter the number of rows: ");
scanf("%d", &rows);
printf("Enter the number of columns: ");
scanf("%d", &columns);
for (i = 1; i <= rows; i++) {
for (j = 1; j <= columns; j++) {
if (i == 1 || i == rows || j == 1 || j == columns) {
printf("$");
} else {
printf(" ");
}
}
printf("\n");
}
return 0;
}
4
4
Enter the number of rows: Enter the number of columns: $$$$
$ $
$ $
$$$$

Q.7


SIMATS
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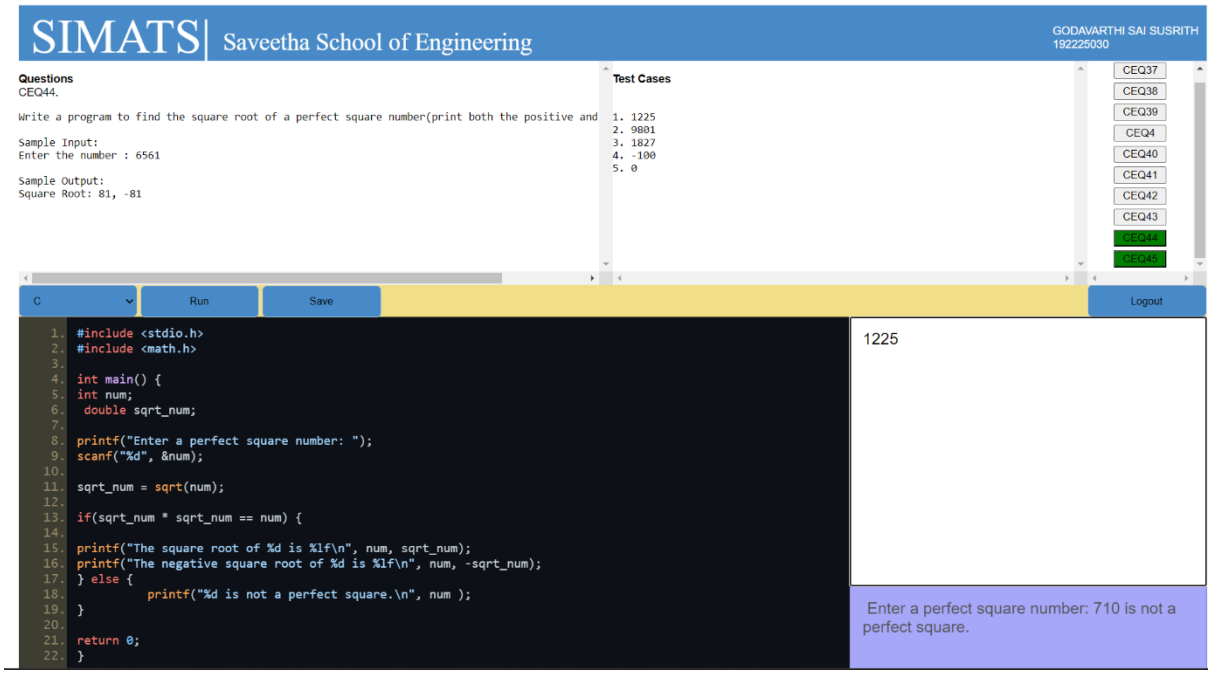
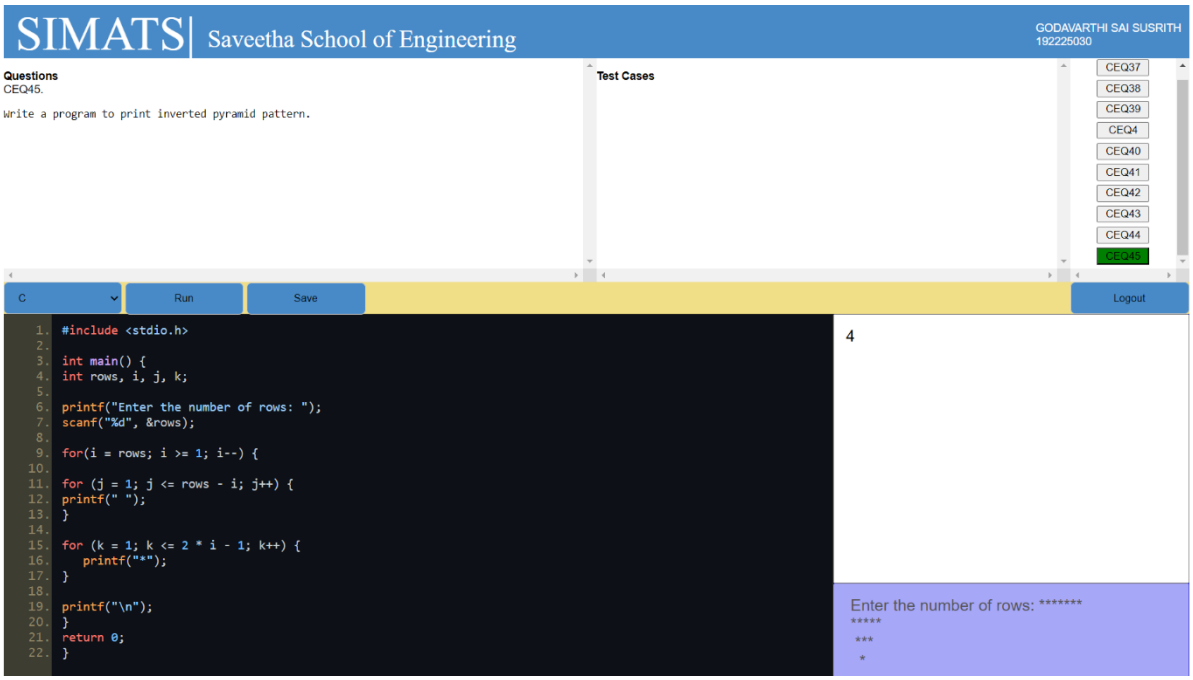
GODAVARTHI SAI SUSRITH
192225030
Questions
CEQ43.
Write a program to find the sum of digits of N digit number.
Sample Input:
Enter N value : 3
Enter 3 digit number: 143
Sample Output:
Sum of 3 digit number: 8
Test Cases
1. N = 2, 158
2. N = 3, 14
3. N = 4, 0148
4. N = 1, 0004
5. N = 4, 7263
CEQ37
CEQ38
CEQ39
CEQ4
CEQ40
CEQ41
CEQ42
CEQ43
CEQ44
C
Run
Save
Logout
#include <stdio.h>
int main() {
int num, sum = 0, rem;
printf("Enter an N digit number: ");
scanf("%d", &num);
while (num > 0)
{
rem = num % 10;
sum += rem;
num /= 10;
}
printf("Sum of digits = %d\n", sum);
return 0;
}
143
Enter an N digit number: Sum of digits = 8

Q.8


SIMATS | Saveetha School of Engineering
GODAVARTHI SAI SUSRITH
192225030
Questions
CEQ44.
Write a program to find the square root of a perfect square number(print both the positive and
Sample Input:
Enter the number : 6561
Sample Output:
Square Root: 81, -81
Test Cases
1. 1225
2. 9801
3. 1827
4. -100
5. 0
CEQ37
CEQ38
CEQ39
CEQ4
CEQ40
CEQ41
CEQ42
CEQ43
CEQ44
CEQ45
C
Run
Save
Logout
#include <stdio.h>
#include <math.h>
int main() {
int num;
double sqrt_num;
printf("Enter a perfect square number: ");
scanf("%d", &num);
sqrt_num = sqrt(num);
if(sqrt_num * sqrt_num == num) {
printf("The square root of %d is %lf\n", num, sqrt_num);
printf("The negative square root of %d is %lf\n", num, -sqrt_num);
} else {
printf("%d is not a perfect square.\n", num);
}
return 0;
}
1225
Enter a perfect square number: 710 is not a perfect square.

Q.9


SIMATS | Saveetha School of Engineering
GODAVARTHI SAI SUSRITH
192225030
Questions
CEQ45.
Write a program to print inverted pyramid pattern.
Test Cases
CEQ37
CEQ38
CEQ39
CEQ4
CEQ40
CEQ41
CEQ42
CEQ43
CEQ44
CEQ45
C
Run
Save
Logout
#include <stdio.h>
int main() {
int rows, i, j, k;
printf("Enter the number of rows: ");
scanf("%d", &rows);
for(i = rows; i >= 1; i--) {
for (j = 1; j <= rows - i; j++) {
printf(" ");
}
for (k = 1; k <= 2 * i - 1; k++) {
printf("*");
}
printf("\n");
}
return 0;
}
4
Enter the number of rows: *******
*****
***
*

Q.10