DAY 2 PRACTICE

Questions
CEQ23.

Find the number of factors for the given number

Sample Input:
Given number: 100

Sample Output:
Number of factors = 9

Test Cases

1. 343
2. 1080
3. -243
4. 101010
5. 0

CEQ19
CEQ2
CEQ20
CEQ21
CEQ22
CEQ23
CEQ24
CEQ25
CEQ26
CEQ27

| C | Run | Save | | Logout |

```c
#include<stdio.h>
int main()
{
int num, i, count=0;
printf("Enter any number: ");
scanf("%d",&num);

for(i=1; i<=num;i++)
{
if(num % i==0)
{
++count;

}
}
printf("The number of factors of %d = %d\n",num,count);
return 0;

}
```

100

Enter any number: The number of factors of 100 = 9

95°F
Sunny

ENG
IN

13:40
05-04-2023

Questions
CEQ25.

Write a program to print the number of vowels in the given statement?

Sample Input:
Saveetha School of Engineering

Sample Output:
Number o vowels = 12

Test Cases

1. India is my country
2. All are my brothers and sisters
3. Why dry sky
4. Shy Try Cry
5. EDUCATION

| C | Run | Save | |

```c
#include <stdio.h>
int main()
{
    int c=0,count=0;
    char s[1000];
    printf("enter a string\n");
    gets(s);
    while (s[c] !='\0')  {
        if (s[c]=='a' || s[c]=='A' || s[c]=='e' || s[c]=='E' || s[c]=='i' || s[c]=='I' || s[c]=='o' || s[c]=='O'
        count++;
      c++;
    }
    printf("number of vowels in the string:%d",count);
    return 0;
}
```

Saveetha School of Engineering

enter a string
number of vowels in the string:12

```
1.  #include<stdio.h>
2.  #include<string.h>
3.  #include<ctype.h>
4.  int main() {
5.  char word[100];
6.  int len, i;
7.  printf("enter a word:");
8.  scanf("%s",word);
9.  len=strlen(word);
10. printf("consonants: ");
11.
12. for(i=0;i<len;i++) {
13. if(isalpha(word[i]) && !strchr("AEIOUaeiou",word[i])) {
14. printf("%c",word[i]);
15. }
16. }
17. printf("\nvowels: ");
18. for(i=0;i<len;i++) {
19. if (isalpha(word[i]) && strchr("AEIOUaeiou",word[i])) {
20. printf("%c",word[i]);
21. }
22. }
23. return 0;
24. }
25.
```

knowledge

 enter a word:consonants: knwldg
vowels: oee

CEQ27.

Write a program to print consonants and vowels separately in the given word.

Sample Input:
Given Word: Engineering

Sample Output:
Consonants: n g n r n g
Vowels: e i e ei

CEQ2
CEQ20
CEQ21
CEQ22
CEQ23
CEQ24
CEQ25
CEQ26
CEQ27

C   Run   Save   Logout

```c
#include<stdio.h>
#include<string.h>
int main()
{
char str[100];
int vowels=0, consonants=0;
printf("Enter a string:");
gets(str);
for(int i=0;i<strlen(str);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
{
vowels++;
}
else if((str[i]>='a'&& str[i]<='z') || (str[i]>='A'&& str[i]<='Z'))
{
consonants++;
}
}
printf("Vowels:%d\n",vowels);
printf("consonants:%d\n",consonants);
return 0;
}
```

ashok

<pre>C:/CCPPComp/CCPP35/bin/../lib/gcc/x8
6_64-w64-mingw32/10.3.0/../../../../x86_64-
w64-mingw32/bin/ld.exe: cannot open output
file exe.exe: Permission denied
collect2.exe: error: ld returned 1 exit status

95°F
Sunny

Questions
CEQ21.

Write a program to print the following pattern

Sample Input:
Enter the Character to be printed: %
Max Number of time printed: 3
%
% %
% % %

Test Cases

CEQ2
CEQ20
CEQ21
CEQ22
CEQ23
CEQ24
CEQ25
CEQ26
CEQ27

C   Run   Save   Logout

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

Your Input Goes Here...!!!

 enter the number of rows:*
**
***
****
*****
******

95°F
Sunny

Find the year of the given date is leap year or not

Sample Input:
Enter Date: 04/11/1947

Sample Output:
Given year is Non Leap Year

Test Cases

1. 04/11/19.47
2. 11/15/1936
3. 31/45/1996
4. 64/09/1947
5. 00/00/2000

CEQ19
CEQ2
CEQ20
CEQ21
CEQ22
CEQ23
CEQ24
CEQ25
CEQ26
CEQ27

C   Run   Save   Logout

```c
#include<stdio.h>
int main()
{
int yr;
printf("\n Please Enter any number you wish\n");
scanf("%d",&yr);

if((yr%400==0)|| ((yr%4==0) &&(yr% 100!=0)))
printf("\n %d is a leap year .\n",yr);
else
printf("\n %d is not a leap year\n",yr);

return 0;
}
```

1947

Please Enter any number you wish

Write a program to print the given number is Perfect number or not?

Sample Input:
Given Number: 6

Sample Output:
It's a Perfect Number

Test Cases

1. 17
2. 26!
3. 143
4. 84.1
5. -963

C   Run   Save

```c
#include <stdio.h>
int main()
{
    int num, sum=0,i;
    printf("enter any number:");
    scanf("%d",&num);
    for (i=1; i<num; i++)
    {
        if (num%i==0)
            sum=sum+i;
    }
    if(num==sum)
        printf("\n it is a perfect number.");
    else
        printf("\n it is not a perfect number.");
    return 0;
}
```

6

enter any number:
it is a perfect number.

EQ19

Find the Mean, Median, Mode of the array of numbers?

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

Sample Output:
Mean = 20
Median = 19
Mode = 16

Array of elements = {26, 28, 37, 26, 33, 31, 29}
Array of elements = {1.6, 1.8, 2.7, 1.6, 2.3, 2.1, .19}
Array of elements = {0, 160, 180, 270, 160, 230, 210, 190, 0}
Array of elements = {200, 180, 180, 270, 160, 270, 270, 190, 200}
Array of elements = {100, 100, 100, 100, 100, 100, 100, 100, 100}

CEQ2
CEQ20
CEQ21
CEQ22
CEQ23
CEQ24
CEQ25
CEQ26
CEQ27

C   Run   Save   Logout

```c
#include<stdio.h>
#include<stdlib.h>
int main(){
int n,i,j,temp,sum=0,mode=0,count=0;

float mean, median;
printf("Enter the size of array:\n");
scanf("%d",&n);
int *arr=(int*) malloc(n*sizeof(int));
printf("Enter the array elements:\n");
for(i=0;i<n;i++)
{
scanf("%d",&arr[i]);
sum+=arr[i];
}
// mean
mean=(float)sum/n;
```

16
18

Enter the size of array:
Enter the array elements:
Mean =64857720.00

```c
for(i=0;i<n-1;i++) {
    for(j=i+1;j<n;j++)  {
        if(arr[i]>arr[j])  {
            temp=arr[i];
            arr[i]=arr[j];
            arr[j]=temp;
        }
    }
}
if(n%2==0)  {
    median=(arr[n/2-1]+arr[n/2])/2;
}
else {
        median=arr[n/2];
}
// mode
for(i=0;i<n;i++)
{
count =0;
for(j=1;j<n;j++)
{
if(arr[i]==arr[j])
{
count++;
}
}
if(count>mode)
{
mode =count;
}
```

CEQ2.

Write a program to check the entered user name is valid or not. Get both the inputs

Sample Input:
Enter the user name: Saveetha@789
Reenter the user name: Saveetha@123

Sample Output:
User name is Invalid

Test Cases

1. Student@123; Student@123

2. 123456; 12345

3. @#$%^&; @#$%^*

4. abcdef_12; abcdef_12

CEQ19
CEQ2
CEQ20
CEQ21
CEQ22
CEQ23
CEQ24
CEQ25
CEQ26
CEQ27

C ▾ | Run | Save | Logout

```c
#include<stdio.h>
#include<string.h>
int main()
{
char  str1[10],str2[10];
printf("Enter the username:\n");
scanf("%s",&str1);
printf("Renter the username:\n");
scanf("%s",&str2);
if(strcmp(str1,str2)==0){
printf("The username is valid ");
}else{
printf("The username is not valid");
}
return 0;
}
```

Saveetha123
Saveetha123

Enter the username:
Renter the username:
The username is not valid

Write a program to print hollow square symbol pattern?
Get the symbol from user.

Sample Input: #

Output:
# # # # #
#   #
#   #
# # # # #

%
&
*
(
@

C ▾ | Run | Save

```c
#include <stdio.h>
void print_rectangle(int n, int m)
{
    int i , j;
    for (i=1; i<=n; i++)
    {
        for  (j=1; j<=m; j++)
        {
            if (i==1 || i==n ||j==1 ||j==m)
                printf(" # ");
            else
                printf("    ");
        }
        printf(" \n");
    }
}
int main()
{
    int rows=4,columns=5;
    print_rectangle(rows,columns);
    return 0;
}
```

Your Input Goes Here...!!!

# # # # #
#   #
#   #
# # # # #