

C PROGRAMMING – 12/04/2023

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Qn :1

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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

```
1. #include<stdio.h>
2. #include<string.h>
3. int main()
4. {
5.     char sen[100]="";
6.     int i;
7.     printf("Enter your senetence : ");
8.     gets(sen);
9.     for(i=0;i<sizeof(sen);i++){
10.        if(sen[i]=='p'){
11.            printf("P is found in string at index : %d", i);
12.        }
13.    }
14. }
```

I am a programmer

Enter your senetence : P is found in string at index : 7

Qn :2

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Questions
CEQ38.
Program to find whether the given number is Armstrong number or not

Sample Input:
Enter number : 153

Sample Output:
Given number is Armstrong number

Test Cases
1. 370
2. 1
3. 371
4. 145678
5. 0.21345

```
1. #include<stdio.h>
2. int main()
3. {
4.     int num, sum=0, digit;
5.     printf("Enter your number : ");
6.     scanf("%d", &num);
7.     while(num){
8.         digit=num%10;
9.         sum+=(digit*digit*digit);
10.        num/=10;
11.    }
12.    if(sum==153){
13.        printf("Its an Armstrong number");
14.    }
15.    else{
16.        printf("Its not an Armstrong number");
17.    }
18. }
```

153

Enter your number : Its an Armstrong number

Qn :3

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Questions
CEQ4.

Write a program to find whether the person is eligible for vote or not. And if that particular

Sample Input:
Enter your age:7

Sample output:
You are allowed to vote after 11 years

Test Cases

- 25
- Eighteen
- 12
- 18
- 34.5

CEQ38

CEQ39

CEQ40

CEQ41

CEQ42

CEQ43

CEQ44

CEQ45

```

1. #include<stdio.h>
2. int main()
3. {
4.     int age;
5.     printf("Enter your age : ");
6.     scanf("%d", &age);
7.     if(age>=18){
8.     }
9.     else{
10.    printf("You are allowed to vote after %d years", (18-age));
11.    }
12. }
13.

```

15

Enter your age : You are allowed to vote after 3 years

Qn :4

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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

- HYPOTHECATION
- MATRICATION
- MANIPULATION
- SATISFACTION
- DEDICATION

CEQ38

CEQ39

CEQ40

CEQ41

CEQ42

CEQ43

CEQ44

CEQ45

```

1. #include<stdio.h>
2. #include<string.h>
3. int main()
4. {
5.     char alp[100] = {'A','B','C','D','E','F','G','H','I','J','K','L','M','N','O','P','Q','R','S','T','U','V','W','X','Y','Z'};
6.     char sen[100]="";
7.     printf("Enter your sentence : ");
8.     scanf("%s", sen);
9.     int i,j;
10.    for(i=strlen(alp);i>=0;i--){
11.    for(j=0;j<strlen(sen);j++){
12.    if(sen[j]==alp[i]){
13.    printf("%c", sen[j]);
14.    }
15.    }
16.    }
17. }

```

MOSQUE

Enter your sentence : USQOME

Qn :5

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Questions
CEQ42.

Write a program to print hollow Rectangle Dollar pattern?

Test Cases

CEQ38

CEQ39

CEQ40

CEQ41

CEQ42

CEQ43

CEQ44

CEQ45

```

1. #include<stdio.h>
2. int main()
3. {
4.     int i,j,n;
5.     printf("Enter number of rows : ");
6.     scanf("%d", &n);
7.     printf("\n");
8.     for(i=1;i<=n;i++){
9.         for(j=1;j<=n;j++){
10.            if(i==1 || j==1 || i==n || j==n){
11.                printf("*");
12.            }
13.            else{
14.                printf(" ");
15.            }
16.        }
17.        printf("\n");
18.    }
19. }

```

4

Enter number of rows : ****

* *

* *

Qn :6

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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

CEQ38

CEQ38

CEQ38

CEQ38

CEQ38

CEQ38

CEQ38

CEQ38

CEQ38

CEQ38

```

1. #include<stdio.h>
2. int main()
3. {
4.     int sum,digit,num;
5.     printf("Enter your number : ");
6.     scanf("%d", &num);
7.     while(num)
8.     {
9.         digit=num%10;
10.        sum+=digit;
11.        num/=10;
12.    }
13.    printf("%d", sum);
14. }

```

143

Enter your number : 8

Qn :7

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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. -180
5. 0

CEQ38

CEQ38

CEQ38

CEQ38

CEQ38

CEQ38

CEQ38

CEQ38

CEQ38

```

1. #include<stdio.h>
2. #include<math.h>
3. int main()
4. {
5.     int num,res,resul;
6.     printf("Enter your number : ");
7.     scanf("%d", &num);
8.     res=sqrt(num);
9.     resul=-sqrt(num);
10.    printf("%d", res);
11.    printf("%d", resul);
12. }

```

6561

Enter your number : 81-81

Qn :8

Questions
CEQ45.

Write a program to print inverted pyramid pattern.

Test Cases

CEQ38

CEQ39

CEQ40

CEQ41

CEQ42

CEQ43

CEQ44

CEQ45

```
1. #include<stdio.h>
2. int main()
3. {
4.     int i,j;
5.     printf("\n");
6.     for(i=0;i<6;i++){
7.         for(j=i;j<6;j++){
8.             printf("  ");
9.         }
10.        printf("\n");
11.    }
12. }
```

Your Input Goes Here...!!!

```
*****
*****
*****
****
***
**
*
```