

C PROGRAMMING DAY 1

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1.

Questions
CEQ11.

Write a program for matrix addition?

Sample Input:

Mat1 = 1 2
5 3
Mat2 = 2 3
4 1

Sample Output:

Mat Sum = 3 5
9 4

Test Cases

CEQ1

CEQ10

CEQ11

CEQ12

CEQ13

CEQ14

CEQ15

CEQ16

CEQ17

CFQ18

C Run Save

Logout

```
1. #include<stdio.h>
2. int main(){
3.     int mat1[2][2]={1,2},{5,3}};
4.     int mat2[2][2]={2,3},{4,1}};
5.     int res[2][2],i,j;
6.     for(int i=0;i<2;i++){
7.         for(int j=0;j<2;j++){
8.             res[i][j]=mat1[i][j]+mat2[i][j];
9.         }
10.    }
11.    printf("result:\n");
12.    for(int i=0;i<2;i++){
13.        for(int j=0;j<2;j++){
14.            printf("%d",res[i][j]);
15.        }
16.        printf(" \n ");
17.    }
18.    return 0;
19. }
```

Your Input Goes Here....!!!

result:
35
94

2.

The screenshot shows a C program in a code editor with a dark background. The code is as follows:

```
1. #include<stdio.h>
2. int main() {
3.     int height;
4.     printf("enter the height of the inverted pyramid:\n");
5.     scanf("%d",&height);
6.     for(int i=height; i>=1;i--){
7.         for(int j=height-i;j>=0;j--){
8.             printf(" ");
9.         }
10.        for(int k=2*i-1;k>=0;k--){
11.            printf("*");
12.        }
13.        printf("\n");
14.    }
15.    return 0;
16. }
```

On the right side of the editor, there is a white input field containing the number "5". Below it, a light blue output area displays the text "enter the height of the inverted pyramid:" followed by an inverted pyramid of asterisks:

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

3.

The screenshot shows a C program in a code editor with a dark background. The code is as follows:

```
#include<stdio.h>
#include<ctype.h>
int main() {
    char s[100];
    int count_alpha =0,count_digit=0,count_special=0;
    printf("enter a string: ");
    fgets(s,100,stdin);
    for(int i=0; s[i]!='\0'; i++) {
        if (isalpha(s[i]))
            count_alpha++;
        if(isdigit(s[i]))
            count_digit++;
        else if (!isspace(s[i]))
            count_special++;
    }
    printf("number of alphabets:%d\n",count_alpha);
    printf("number of digits:%d\n",count_digit);
    printf("number of special:%d\n",count_special);

    return 0;
}
```

On the right side of the editor, there is a white input field containing the string "abc!@ 12 cd 1212". Below it, a light blue output area displays the text "enter a string: number of alphabets:0".

4.

Questions
CEQ12.

Write a program to print rectangle symbol pattern.
Get the symbol as input from user.

Test Cases

CEQ10
CEQ11
CEQ12
CEQ13
CEQ14
CEQ15
CEQ16
CEQ17
CEQ18

C

Run

Save

Logout

```

1. #include<stdio.h>
2. int main()
3. {
4.     int N=5,i,j;
5.     for(i=1;i<=N;i++)
6.     {
7.         for(j=1;j<=N;j++)
8.         {
9.             printf("*");
10.        }
11.        printf("\n");
12.    }
13.    return 0;
14. }
```

Your Input Goes Here...!!!

5.

Questions
CEQ10.

Write a program to print the numbers from M to N by skipping K numbers in between?

Sample Input:

M = 50

N = 100

K = 7

Sample output:

50, 58, 66, 74, ...

Test Cases

1. M = 15, N = 05, K = 02
2. M = 25, N = 50, K = 04
3. M = 15, N = 100, K = -02
4. M = 0, N = 0, K = 2
5. M = 200, N = 200, K = 50

CEQ10
CEQ11
CEQ12
CEQ13
CEQ14
CEQ15
CEQ16
CEQ17
CEQ18

C

Run

Save

Logout

```

1. #include<stdio.h>
2. int main()
3. {
4.     int M=50,N=100,K=7;
5.     if(M>N)
6.     {
7.         printf(" INVALID INPUT");
8.         return 0;
9.     }
10.    else
11.    {
12.        for(int i=N;i>=M;i-=K+1)
13.        {
14.            printf("%d\n",i);
15.        }
16.        return 0;
17.    }
18. }
```

Your Input Goes Here...!!!

100
92
84
76

6.

```
1. #include<stdio.h>
2. int main(){
3.     int num, max_times,i,j;
4.
5.     printf("enter the number to be printed;");
6.     scanf("%d", &num);
7.
8.     printf("Max number of time printed; ");
9.     scanf("%d", &max_times);
10.
11.     for(i = 1;i <= max_times; i++) {
12.         for(j = 1; j <= i; j++) {
13.             printf("%d",num);
14.         }
15.         printf("\n");
16.     }
17.     for(i=max_times-1;i>=1; i--){
18.         for(j=1;j<=i;j++){
19.             printf("%d",num);
20.         }
21.         printf("\n");
22.     }
23.     return 0;
24. }
```

1
3

enter the number to be printed;Max number of time printed; 1
11
111
11
1

7.

Questions
CEQ14.

Write a program for matrix multiplication?

Sample Input:
Mat1 = 1 2
5 3
Mat2 = 2 3
4 1

Sample output:
Mat Sum = 10 5
22 18

Test Cases

CEQ15
CEQ16
CEQ17
CEQ18
CEQ13
CEQ14
CEQ11
CEQ10
CEQ9
CEQ8
CEQ7
CEQ6
CEQ5
CEQ4
CEQ3
CEQ2
CEQ1

```
1. #include<stdio.h>
2. int main() {
3.     int mat1[2][2] = {{1,2}, {5,3}};
4.     int mat2[2][2] = {{2,3}, {4,1}};
5.     int result[2][2]={0,0}, {0,0}};
6.     for (int i = 0; i < 2; i++) {
7.         for (int j = 0; j < 2; j++) {
8.             for (int k = 0; k < 2; k++) {
9.                 result [i][j] += mat1[i][k] * mat2[k][j];
10.            }
11.        }
12.    }
13.    printf("result matrix:\n");
14.    for (int i=0; i<2; i++) {
15.        for (int j=0; j<2; j++) {
16.            printf(" %d", result[i][j]);
17.        }
18.        printf("\n");
19.    }
20.    return 0;
21. }
```

Your Input Goes Here...!!!

result matrix:
10 5
22 18

8.

Questions

CEQ1.

Write a program to reverse a word using loop(Not to use inbuilt functions).

Sample Input:

String: TEMPLE

Sample Output:

Reverse String: ELPMET

Test Cases

1. SIGN UP
2. AT-LEAST
3. 1245
4. l@#\$\$
5. 145*999=144855

C

Run

Save

Logout

```
1. #include<stdio.h>
2. #include<string.h>
3. int main(){
4.     char str[40];
5.     printf("\n enter a string to be reversed: ");
6.     scanf("%s",str);
7.     printf ("\n after the reverse of a string: %s ", strrev(str));
8.     return 0;
9. }
```

TEMPLE

enter a string to be reversed:
after the reverse of a string: ELPMET







