

ASSINGNMENT:7

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Q1 To find the product two matrices

```
#include <stdio.h>

int main() {
    int a[10][10], b[10][10], c[10][10], i, j, k, m, n, p, q;

    printf("Enter the number of rows and columns of the first\nmatrix: ");
    scanf("%d%d", &m, &n);

    printf("Enter the elements of the first matrix: \n");
    for (i = 0; i < m; i++) {
        for (j = 0; j < n; j++) {
            scanf("%d", &a[i][j]);
        }
    }

    printf("Enter the number of rows and columns of the second\nmatrix: ");
    scanf("%d%d", &p, &q);
```

```
if (n != p) {
    printf("The matrices can't be multiplied with each other.\n");
} else {
    printf("Enter the elements of the second matrix: \n");
    for (i = 0; i < p; i++) {
        for (j = 0; j < q; j++) {
            scanf("%d", &b[i][j]);
        }
    }

    for (i = 0; i < m; i++) {
        for (j = 0; j < q; j++) {
            c[i][j] = 0;
            for (k = 0; k < n; k++) {
                c[i][j] += a[i][k] * b[k][j];
            }
        }
    }

    printf("The resultant matrix is: \n");
    for (i = 0; i < m; i++) {
        for (j = 0; j < q; j++) {
            printf("%d ", c[i][j]);
        }
        printf("\n");
    }

    return 0;
}
```


Output:

```
"C:\Users\hp\Documents\lab 7 q1.exe"
Enter the number of rows and columns of the first matrix: 3
2
Enter the elements of the first matrix:
1
4
2
5
2
1
Enter the number of rows and columns of the second matrix: 2
2
Enter the elements of the second matrix:
14
5
3
1
The resultant matrix is:
26 9
43 15
31 11

Process returned 0 (0x0)   execution time : 16.746 s
Press any key to continue.
```

Q-2 comparing two string

```
#include<stdio.h>
#include<string.h>
int main()
{char s1[20];
char s2[20];
printf("enter the string 1");
scanf("%s",s1);
printf("enter the string 2");
scanf("%s",s2);
int n1=strlen(s1);
int n2=strlen(s2);
if(n1!=n2)
{printf("strings are not equal");}
else
{ int c=0;
for(int i=0;i<n1;i++)
{
```

```
if(s1[i]!=s2[i]){  
    printf("strings are not equal");  
    c=1;  
    break;  
}  
}  
if(c==0)  
{  
    printf("strings are equal");  
}  
}  
return 0;  
}
```

Output:

 "C:\Users\hp\Documents\lab 7q2.exe"

enter the string 1hello

enter the string 2hello

strings are equal

Process returned 0 (0x0) execution time : 12.720 s

Press any key to continue.

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