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**COURSE NAME : DATA STRUCTURES FOR MODERN COMPUTING SYSTEMS**

**COURSE CODE : CSA0302**

1. **WRITE A C PROGRAM TO PERFORM MULTIPLICATION OF 3\*3 MATRIX**

**C PROGRAMMING CODE:**

#include <stdio.h>

int main() {

int a[3][3], b[3][3], mul[3][3], i, j, k;

printf("Enter elements of first 3x3 matrix:\n");

for(i=0;i<3;i++)

for(j=0;j<3;j++)

scanf("%d",&a[i][j]);

printf("Enter elements of second 3x3 matrix:\n");

for(i=0;i<3;i++)

for(j=0;j<3;j++)

scanf("%d",&b[i][j]);

for(i=0;i<3;i++)

for(j=0;j<3;j++) {

mul[i][j]=0;

for(k=0;k<3;k++)

mul[i][j]+=a[i][k]\*b[k][j];

}

printf("Product of matrices:\n");

for(i=0;i<3;i++){

for(j=0;j<3;j++)

printf("%d ",mul[i][j]);

printf("\n");

}

return 0;

}

**OUTPUT:**

