

Matrix multiplication

```
#include<stdio.h>

int main(){

int i,j,k;

int r1,c1,r2,c2;

printf("Enter Rowss and columns of Mat 1 : \n");

scanf("%d %d", &r1, &c1);

printf("Enter Rowss and columns of Mat 1 : \n");

scanf("%d %d", &r2, &c2);

if(c1 == r2){

int a[r1][c1];

int b[r2][c2];

printf("Enter Elements of Mat1 : \n");

for(i=0;i<r1;i++){

for(j=0;j<c1;j++){

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

}

}

printf("Enter Elements of Mat2 : \n");

for(i=0;i<r2;i++){

for(j=0;j<c2;j++){

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

}

}

int c[c1][r2];

for(i=0;i<c1;i++){

for(j=0;j<r2;j++){

c[i][j]= 0;

for(k=0;k<r1;k++){
```

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c[i][j] += a[i][k] * b[k][j];
}
}
}

printf("Matrix 1 X Matrix 2 : \n");
for(i=0;i<r2;i++){
for(j=0;j<c2;j++){
printf("%d\t", c[i][j]);
}
printf("\n");
}
}
else{
printf("Matrix Multipliacion is Not Possible.");
}
return 0;
}

```

Output:

```

Enter Rowss and columns of Mat 1 :
2
2
Enter Rowss and columns of Mat 1 :
2
2
Enter Elements of Mat1 :
2 3
4 5
Enter Elements of Mat2 :
6 7
8 9
Matrix 1 X Matrix 2 :
36    41
64    73

Process returned 0 (0x0)   execution time : 23.461 s
Press any key to continue.

```