



SIMATS
ENGINEERING



SIMATS
Saveetha Institute of Medical And Technical Sciences
(Declared as Deemed to be University under Section 3 of UGC Act 1956)

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COURSE NAME : DATA STRUCTURES FOR MODERN COMPUTING SYSTEMS

COURSE CODE : CSA0302

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

C PROGRAMMING CODE:

```
#include <stdio.h>

int main() {
int a[3][3], b[3][3], sum[3][3], i, j;
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++)
sum[i][j]=a[i][j]+b[i][j];

printf("Sum of matrices:\n");
for(i=0;i<3;i++){
for(j=0;j<3;j++)
printf("%d ",sum[i][j]);
printf("\n");
}
return 0;
}
```

OUTPUT:

main.c	Output
<pre>1 #include <stdio.h> 2- int main() { 3 int a[3][3], b[3][3], sum[3][3], i, j; 4 printf("Enter elements of first 3x3 matrix:\n"); 5 for(i=0;i<3;i++) for(j=0;j<3;j++) scanf("%d",&a[i][j]); 6 printf("Enter elements of second 3x3 matrix:\n"); 7 for(i=0;i<3;i++) for(j=0;j<3;j++) scanf("%d",&b[i][j]); 8 for(i=0;i<3;i++) for(j=0;j<3;j++) sum[i][j]=a[i][j]+b[i][j]; 9 printf("Sum of matrices:\n"); 10- for(i=0;i<3;i++){ 11 for(j=0;j<3;j++) printf("%d ",sum[i][j]); 12 printf("\n"); 13 } 14 return 0; 15 } 16 17</pre>	<pre>Enter elements of first 3x3 matrix: 1 2 3 4 5 6 7 8 9 Enter elements of second 3x3 matrix: 9 8 7 6 5 4 3 2 1 Sum of matrices: 10 10 10 10 10 10 10 10 10 === Code Execution Successful ===</pre>