Sample Output:

Enter size of square matrix: 2
Enter the elements of of matrix: A: 12 23 45 67
Enter the elements of matrix: B: 12 23 45 67

Add of Matrix:
2446
90134
Sub of Matrix:
00
00
Multi pd Matrix:
11791817
35555524

7. Matrix Manipulation (Addition, Subtraction & Multiplication)

```
#include <stdio.h>
int main() {
    int a[10][10], b[10][10], c[10][10], i, j, k, n;

    printf("Enter size of square matrix: ");
    scanf("%d", &n);

    printf("Enter elements of Matrix A:\n");
    for(i = 0; i < n; i++)
        for(j = 0; j < n; j++)
            scanf("%d", &a[i][j]);

    printf("Enter elements of Matrix B:\n");
    for(i = 0; i < n; i++)
        for(j = 0; j < n; j++)
            scanf("%d", &b[i][j]);

    // Addition
    printf("\nAddition of Matrices:\n");
    for(i = 0; i < n; i++) {
        for(j = 0; j < n; j++) {
            c[i][j] = a[i][j] + b[i][j];
            printf("%d ", c[i][j]);
        }
        printf("\n");
    }

    // Subtraction
    printf("\nSubtraction of Matrices:\n");
    for(i = 0; i < n; i++) {
        for(j = 0; j < n; j++) {
            c[i][j] = a[i][j] - b[i][j];
            printf("%d ", c[i][j]);
        }
        printf("\n");
```

```
    }

    // Multiplication
    printf("\nMultiplication of Matrices:\n");
    for(i = 0; i < n; i++) {
        for(j = 0; j < n; j++) {
            c[i][j] = 0;
            for(k = 0; k < n; k++)
                c[i][j] += a[i][k] * b[k][j];
            printf("%d ", c[i][j]);
        }
        printf("\n");
    }

    return 0;
}
```