

```
● meetbatra@Meets-MacBook-Air BPIT % gcc main.c -o main
● meetbatra@Meets-MacBook-Air BPIT % ./main
Enter the number of variables: 3
Enter the augmented matrix:
2 1 -1 8
-3 -1 2 -11
-2 1 2 -3

The solution is:
x1 = 2.00
x2 = 3.00
x3 = -1.00

Meet Batra ECE-A(101)%
○ meetbatra@Meets-MacBook-Air BPIT %
```

```
C main.c x
C main.c
1  #include <stdio.h>
2  #define MAX 10
3
4  void gaussJordan(float a[MAX][MAX+1], int n) {
5      int i, j, k;
6      float ratio;
7
8      for (i = 0; i < n; i++) {
9          if (a[i][i] == 0.0) {
10             printf("Divide by zero detected! Exiting...\n");
11             return;
12         }
13         float temp = a[i][i];
14         for (j = 0; j <= n; j++)
15             a[i][j] = a[i][j] / temp;
16
17         for (j = 0; j < n; j++) {
18             if (i != j) {
19                 ratio = a[j][i];
20                 for (k = 0; k <= n; k++) {
21                     a[j][k] = a[j][k] - ratio * a[i][k];
22                 }
23             }
24         }
25     }
26
27     printf("\nThe solution is: \n");
28     for (i = 0; i < n; i++) {
29         printf("x%d = %.2f\n", i + 1, a[i][n]);
30     }
31 }
32
33 int main() {
34     int n, i, j;
35     float a[MAX][MAX+1];
36
37     printf("Enter the number of variables: ");
38     scanf("%d", &n);
39
40     printf("Enter the augmented matrix:\n");
41     for (i = 0; i < n; i++) {
42         for (j = 0; j <= n; j++) {
43             scanf("%f", &a[i][j]);
44         }
45     }
46
47     gaussJordan(a, n);
48
49     printf("\nMeet Batra ECE-A(101)");
50
51     return 0;
52 }
```