Experiment 4

```
#include <stdio.h>

void Max_Min(int i, int j, int a[], int *max, int *min) {
    if (i == j) {
        *max = a[i];
        *min = a[j];
    } else if (i == j - 1) {
        if (a[i] < a[j]) {
            *min = a[i];
            *max = a[j];
        } else {
            *min = a[j];
            *max = a[i];
        }
    } else {
        int mid = (i + j) / 2;
        int max1, min1;
        Max_Min(i, mid, a, max, min);
        Max_Min(mid + 1, j, a, &max1, &min1);
        if (*max < max1) {
            *max = max1;
        }
        if (*min > min1) {
            *min = min1;
        }
    }
}

int main() {
    int n;
    printf("Enter the number of elements in the array: ");
    scanf("%d", &n);
    int a[n];

    printf("Enter the elements in the array:\n");
    for (int i = 0; i < n; i++)
        scanf("%d", &a[i]);

    int max, min;
    Max_Min(0, n - 1, a, &max, &min);

    printf("Maximum element: %d\n", max);
    printf("Minimum element: %d\n", min);

    return 0;
}
```

Output:

```
(base) computer@computer:~/Desktop/karan$ gcc -o MaxMin MaxMin.c
(base) computer@computer:~/Desktop/karan$ ./MaxMin
Enter the number of elements in the array: 6
Enter the elements in the array:
12
67
98
77
2
55
Maximum element: 98
Minimum element: 2
(base) computer@computer:~/Desktop/karan$
```