

PRN- 23UAI313

EXP-2

```
#include<iostream>
```

```
using namespace std;int a[100];int minn, maxx;void MaxMinAlgo(int x, int y) {int max1, min1, mid;if (x == y)
```

```
{
```

```
minn = maxx = a[x];
```

```
}
```

```
else if (x == y - 1)
```

```
{
```

```
if (a[x] < a[y])
```

```
{
```

```
maxx = a[y];
```

```
minn = a[x];
```

```
} else
```

```
{
```

```
maxx = a[x];
```

```
minn = a[y];
```

```
}
```

```
} else
```

```
{
```

```
mid = (x + y) / 2;
```

```
MaxMinAlgo(x, mid);
```

```
min1 = minn;
```

```
max1 = maxx;
```

```
MaxMinAlgo(mid + 1, y);if (maxx < max1) {maxx = max1;} if (minn > min1) {minn = min1;}
```

```
}
```

```
}
```

```
int main() {
```

```
int n, i;
```

```
cout << "Enter array size:" << endl;
```

```
cin >> n;
for (i = 1; i <= n; i++)
{
    cin >> a[i]; minn = a[1];
    maxx = a[1]; MaxMinAlgo(1, n);
    cout << "Minimum element in array is: " << minn << endl;
    cout << "Maximum element in array is: " << maxx << endl;
    return 0;
}
```