

(106)

Printen Application

Finding the Largest and Smallest Element in an Array

Finding largest number without pointer;

```
int main() {
```

```
    int a[5] = {4, 5, 6, 7, 8};
```

```
    min = a[0];
```

```
    max = a[0];
```

both are initialized with the first element of the array.

```
    for (i=0; i<5; i++) {
```

```
        if (a[i] < min) {
```

```
            min = a[i];
```

```
        }
```

```
        if (a[i] > max) {
```

```
            max = a[i];
```

```
        }
```

```
    printf("min = %d", min);
```

```
    printf("max = %d", max);
```

```
    return 0;
```

```
}
```

using pointer:

```
#include <stdio.h>
```

```
void minMax(int a[], int len, int *min, int *max);
```

```
int main() {
```

```
    int a[] = {5, 6, 10, 7, 8, 6, 2}
```

Same Code.

2 different function

```
    int len = sizeof(a)/sizeof(a[0]);
```

So using pointer

```
    int min, max;
```

we can change the

variable in main

```
    minMax(int a, len, &min, &max);
```

function cos with

```
    printf("Min: %d, Max: %d", min, max);
```

```
    return 0;
```

```
}
```

coding we can't return
value of 2 variable at a
time.

```
void minMax(int a[], int len, int *min, int *max) {
```

```
    *min = *max = len a[0];
```

```
    int i;
```

```
    for (i = 1; i < len; i++) {
```

using stars means we are
dealing with the
values of

```
        if (a[i] > *max) { *max = a[i]; }
```

that

```
        if (a[i] < *min) { *min = a[i]; }
```

address.

```
    }
```

```
}
```