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Lab 10: M Script Debugging

Code with error

```
function [vals, locs]=local_max(v)
n=length(v);
vals=[];
locs=[];

for m=1:n
    if v(m)-v(m-1)>0 && v(m)-v(m+1)>0
        vals = [vals;v(m)];
        locs = [locs;m];
    end
end
figure; plot(v);
hold on;
plot(locs,vals,'ro');
```

Running the file in the command window at first

Error is received so will use step debugging

Setting Step debug in line 2 from where the file is running

Running the step debug in command window

Click on the step button to go to next step

Step
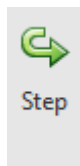
You will find there is an error in line 7 as its shown in command window

```
>> a = rand(10,1);
>> [V,L] = local_max(a);
2    n=length(v);
Array indices must be positive integers or logical
values.

Error in local_max (line 7)
    if v(m)-v(m-1)>0 && v(m)-v(m+1)>0
```

*Changing value from for **m=1:n** to **m=2:n***

Once again setting the breakpoint in line 2 and running it

```
2      n=length(v);
```

After doing it continue the above step by clicking on step button again and again till the graph is received like this