Module 07: Function

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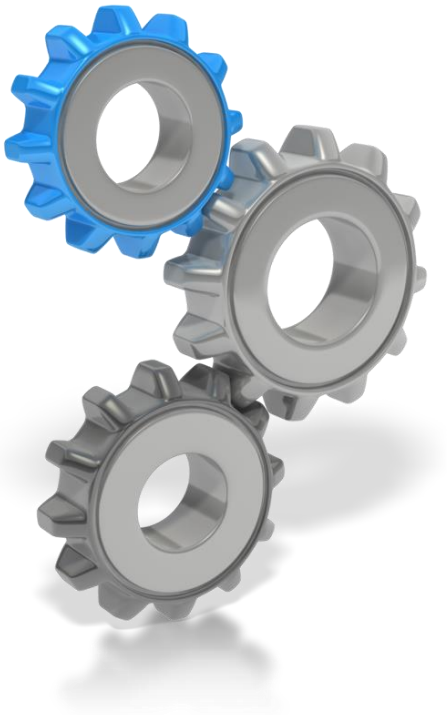

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(a) We cannot include multiple functions in one m-file.

(b) If there are four functions in one m-file, we can access all those functions from the other files

(c) When a script call a function A, the script and function A share the same variable scope.

(d) We can access a local function in a m-file from the other files.

(e) If there are four functions in one m-files, these four functions share the same variable scope.

```
function vec = your_fun72(mat1)

[nr, nc] = size(mat1);

vec = zeros(1, nc);

for ii=1:nc

    vec(ii) = sum(mat1(:,ii))/nr;

end

end
```

```
vec = your_fun72(mat1)
```

```
vec = [1, -1, 0, 1 0, 7, -8]
val1 = your_fun73(vec, 'pos');
val2 = your_fun73(vec, 'neg');
val = val1 + val2;
```

```
function num = your_fun73(vec1, csign)

num = 0;
if strcmp(csign, 'pos')
    num = sum(vec1 > 0);
elseif strcmp(csign, 'neg')
    num = sum(vec1<0);
end

end
```

your_fun73.m

```
function val = your_fun74(char_vec)

vowel = 'aeiou';

vec = zeros(1, numel(vowel));

for ii=1:numel(vowel)
    vec(ii) = sum(char_vec == vowel(ii));
end

[~, I] = max(vec);

val = vowel(I);

end
```