

B2 • Discussion #7 • 2021-03-12

Remind us ~10:38 am EST to stop
Discussion for the quiz! (15 min + 5 upload)

Announcements

- There is a time change this Sunday at 2am in Boston
↳ clocks move forward one hour
- Homework #3 due Monday
↳ done individually, gets you ready for C portion of the course
- For Monday's class, make sure you look at the supplemental material
- Exam #2 is one week from today!
↳ Friday, 3/19 from 4:30-6:15 EDT for all
↳ you'll have 1.5 hr for the exam, 15 min to upload to Gradescope
- Thursday, 3/18 is a "BU Wellness Day" and we are not allowed to schedule anything academic ... this means that open hours & study tesh on Wed.
↳ Wednesday, 3/18 Open Hours: 2-4 pm EDT
↳ Wednesday, 3/18 Study Session: 7-9 pm EDT

Review Last Week's Quiz

Review Lecture Material

- file input (only `fgetl`)
- file output using `fprintf`
- note that load and save are only for matrices
- MAT-files
- variable # of arguments... using `nargin`
- anonymous functions

So sorry about the tech issues! Here's screenshots of what we worked on though!

```
function writel(le, varargin)
% Block comment
if nargin > 1
    fprintf(varargin{1}, 'Length is %1f\n', le);
else
    fprintf('Length is %1f\n', le)
end

%{
    Let's pretend that this is the command window:
    fid = fopen('filename', 'w');
    writel(4, fid)
    fclose
%}

function writel(varargin)
% Block comment
if nargin > 1
    fprintf(varargin{2}, 'Length is %1f\n', varargin{1});
else
    fprintf('Length is %1f\n', varargin{1})
end
```

```
%{
Write a script "LA Dodgers" that will read names from a file "LAroster.txt" in the form,
"Last, First" and print in the form "First Last".
For example, if the file stores the following:

Bellinger, Cody
Seager, Cory
Turner, Justin
Betts, Mookie

Cody Bellinger
Cory Seager
Justin Turner
Mookie Betts

%}

fid = fopen('LAroster.txt', 'w');
aline = fgetl(fid);
while aline ~= -1
    [last, first] = strtok(aline);
    last = last(1:end-1);
    first = strtok(first);
    fprintf(fid, '%s %s\n', first, last)
    aline = fgetl(fid);
end
fclose(fid);
```

Anonymous Functions

Question: why use them at all?

→ no code file!

→ simpler, quick calculation

Example: write an anonymous function to implement the following quadratic:
 $3x^2 - 2x + 5$

```
myquadfunc = @(x) 3 * x^2 - 2 * x + 5;
```

That's it!

Format: `funcname = @(x) funcbody`

Another Example: velocity of sound in air is $49.02\sqrt{T}$ ft/sec where T is air temperature in Rankine. Write an anonymous function.

```
vel_sound = @(RT) 49.02 * sqrt(RT);
```