

**MATLAB - Intermediate - Session 2**

$[num, tot, raw] = xlsread(filename, 'sheetname')$

Relational Addressing  
 $fullfile('...', 'Data')$   
 Absolute Address  
 $project / 18-19 / Tom / Data$

Nov 29-12:56

$Data = xlsread(fullfile('...', 'filename.xlsx'))$   
 $Data = xlsread('filename')$   
 $List = unique(Data)$   
 $xlswrite('filename', Data, 'sheetname')$

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$a = [3, 5, 9, 8]$

Structures  
 Record → Subject: Age → field  
 ----- Name  
 ..... email

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$Subject(3).Age = 18$   
 $Subject(4).Data = [3, 5, 4; 1, 9, 8]_{2 \times 3}$   
 $Subject(4).Data(2, 1)$   
 Collection . Patient . Diagnostic ...  
 Collection . Control . Sth

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Cell Arrays  
 $a\{1\} = [5, 9, 8];$   
 $a(1) = \{5, 9, 8\}$   
 $a\{2\} = [1, 3];$

$a_{1 \times 2}$   
 $a\{1\}_{1 \times 3}$

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$a\{1\} = [5, 9, 8];$   
 $a\{1\}(3) \quad \times a(1)\{3\}$   
 $[5, 9, 8]$   
 ! TO access has to be  $\{ \}$

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```
Name = ['Sara' ; 'Adam']2x4
a = 'Hello!'1x6
a(2) → 'e'
a(2:4) → 'ell'
'Lydia' ----- ?
                ----- ?
                -----
```

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```
Name = {'Sara', 'Adam'}1x2
Name(3) = {'Lydia'}
Name{1}(2)
a = ['Sara' ; [1, 2, 3, 4]]
```

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```
List = dir
dir('___')
dir(fullfile('..', ___))

Wildcards
dir('* .mat')
list = dir('mem* .mat')
```

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```
.filename
.is dir → { 0 file
            1 directory
.folder → the address of that file/folder
```

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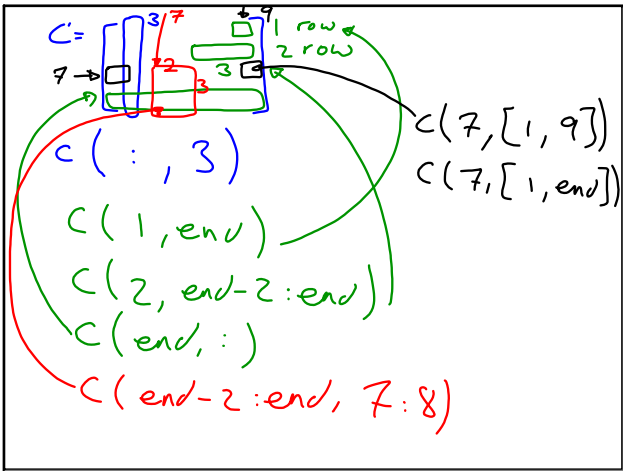
```
a = [5, 3, 2, 9, 8, 4]
a(1:3) → 5, 3, 2
a(end) → 4
a(end-2) → 9
a(end-2:end) → 9, 8, 4
a(:) = a
```

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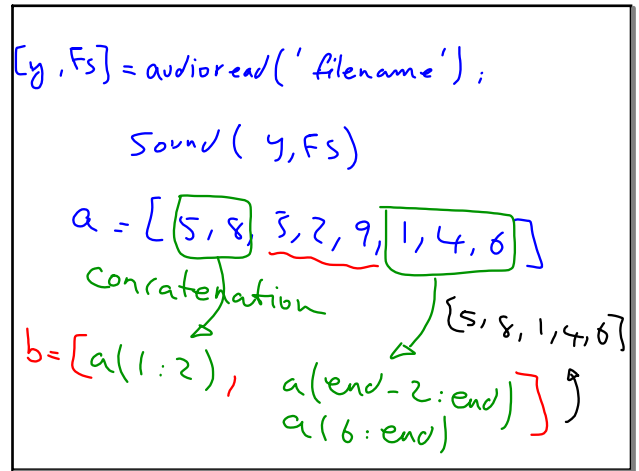
```
b = [5, 3, 9, 8; 4, 2, 1, 6]2x4
b = [ 5 3 9 8
      4 2 1 6 ]
b(1, 1:2)
b(1:2, 4)
b(1:2, 2:3)
b(2, 1:4) = b(2, :)
```

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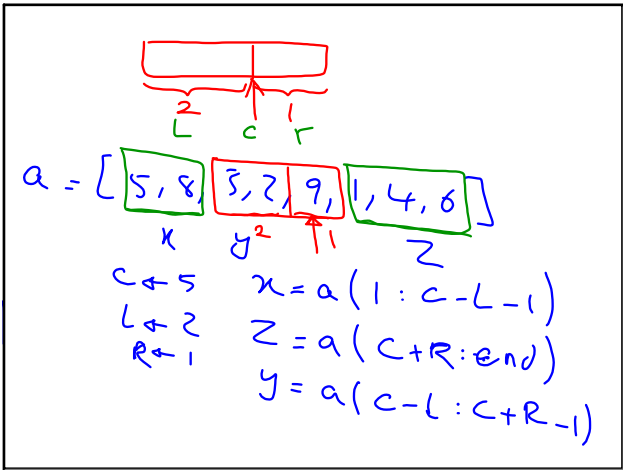
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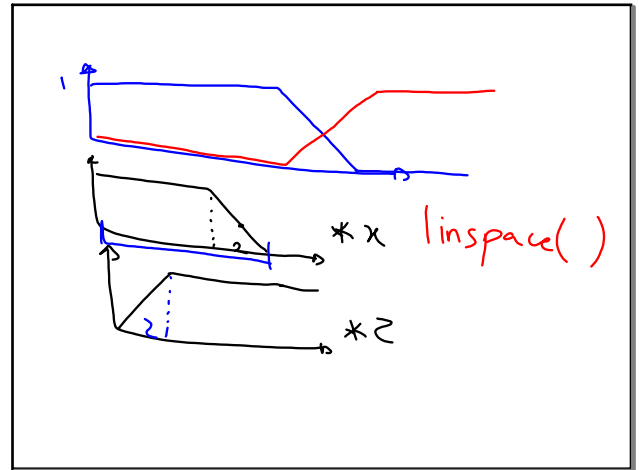
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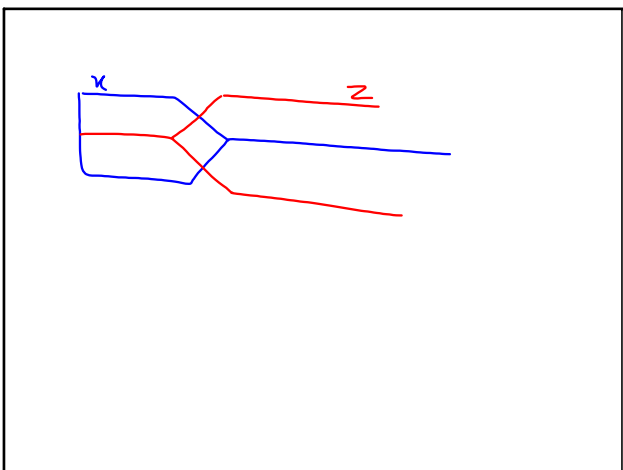
Nov 29-16:07



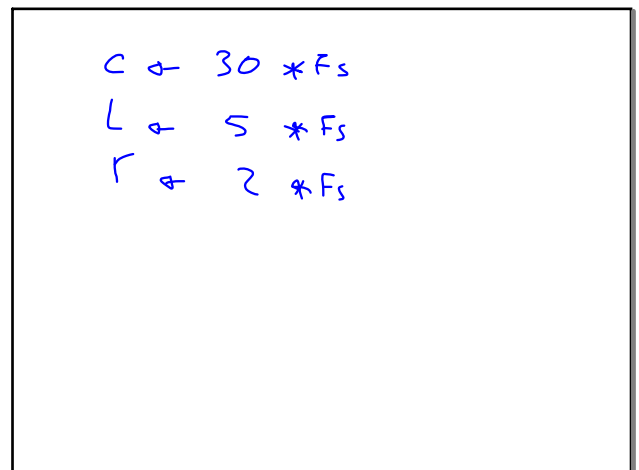
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