

## Test case 1 & Test case 2

```
D:\CPE100\Assignment12\Untitled1.exe

=====
>'generate'(g) [filename] [attribute]      | create file text and data
>'show' [filename]                        | show data in file
>'transpose'(t) [input file] [output file] | transpose file input to output
>'add'(a) [input file 1] [input file 2] [output file] | add matrix between file input to output
>'subtract'(s) [input file 1] [input file 2] [output file] | subtract matrix between file input to output
>'scalarmultiplication'(sm) [input file 1] [output file] | multiply matrix between scalar input to output
>'matrixmultiplication'(mm) [input file 1] [input file 2] [output file] | multiply matrix between file input to output
>'cls'                                    | clear screen
=====

Users:\command>gem
gem is not a command.
Users:\command>generate
too few parameter for function 'generate': generate [filename] [attribute]
Users:\command>
```

## Test case 3

```
Select D:\CPE100\Assignment12\Untitled1.exe

=====
>'generate'(g) [filename] [attribute]      | create file text and data
>'show' [filename]                        | show data in file
>'transpose'(t) [input file] [output file] | transpose file input to output
>'add'(a) [input file 1] [input file 2] [output file] | add matrix between file input to output
>'subtract'(s) [input file 1] [input file 2] [output file] | subtract matrix between file input to output
>'scalarmultiplication'(sm) [input file 1] [output file] | multiply matrix between scalar input to output
>'matrixmultiplication'(mm) [input file 1] [input file 2] [output file] | multiply matrix between file input to output
>'cls'                                    | clear screen
=====

Users:\command>mm t1.txt t1.txt t2.txt
read file 't1.txt' success
t1.txt is Matrix 2x3
| 1 2 3 |
| 4 5 6 |
read file 't1.txt' success
t1.txt is Matrix 2x3
| 1 2 3 |
| 4 5 6 |
Can't Multiply Matrix [col[A]=row[B]]
Users:\command>
```

## Test case 4

### -Generate data

```
=====
>'generate'(g) [filename] [attribute]      | create file text and data
>'show' [filename]                        | show data in file
>'transpose'(t) [input file] [output file] | transpose file input to output
>'add'(a) [input file 1] [input file 2] [output file] | add matrix between file input to output
>'subtract'(s) [input file 1] [input file 2] [output file] | subtract matrix between file input to output
>'scalarmultiplication'(sm) [input file 1] [output file] | multiply matrix between scalar input to output
>'matrixmultiplication'(mm) [input file 1] [input file 2] [output file] | multiply matrix between file input to output
>'cls'                                    | clear screen
=====

Users:\command>g t1.txt
Enter no. row of matrix t1.txt [0-100]: 2
Enter no. column of matrix t1.txt [0-100]: 3
t1.txt is Matrix 2 x 3
input data[1][1]: 1
input data[1][2]: 2
input data[1][3]: 3
input data[2][1]: 4
input data[2][2]: 5
input data[2][3]: 6
build success
Users:\command>Users:\command>g t2.txt
Enter no. row of matrix t2.txt [0-100]: 3
Enter no. column of matrix t2.txt [0-100]: 2
t2.txt is Matrix 3 x 2
input data[1][1]: 1
input data[1][2]: 1
input data[2][1]: 2
input data[2][2]: 3
input data[3][1]: 5
input data[3][2]: 0
build success
Users:\command>Users:\command>
```

## -Show data

```
>'generate'(g) [filename] [attribute] | create file text and data
>'show' [filename] | show data in file
>'transpose'(t) [input file] [output file] | transpose file input to output
>'add'(a) [input file 1] [input file 2] [output file] | add matrix between file input to output
>'subtract'(s) [input file 1] [input file 2] [output file] | subtract matrix between file input to output
>'scalarmultiplication'(sm) [input file 1] [output file] | multiply matrix between scalar input to output
>'matrixmultiplication'(mm) [input file 1] [input file 2] [output file] | multiply matrix between file input to output
>'cls' | clear screen

Users:\command>show t1.txt
read file 't1.txt' success
t1.txt is Matrix 2x3
| 1 2 3 |
| 4 5 6 |
Users:\command>
```

## -transpose

```
Select D:\CPE100\Assignment12\Untitled1.exe

>'generate'(g) [filename] [attribute] | create file text and data
>'show' [filename] | show data in file
>'transpose'(t) [input file] [output file] | transpose file input to output
>'add'(a) [input file 1] [input file 2] [output file] | add matrix between file input to output
>'subtract'(s) [input file 1] [input file 2] [output file] | subtract matrix between file input to output
>'scalarmultiplication'(sm) [input file 1] [output file] | multiply matrix between scalar input to output
>'matrixmultiplication'(mm) [input file 1] [input file 2] [output file] | multiply matrix between file input to output
>'cls' | clear screen

Users:\command>t t1.txt t4.txt
read file 't1.txt' success
t1.txt is Matrix 2x3
| 1 2 3 |
| 4 5 6 |
read file 't4.txt' success
t4.txt is Matrix 3x2
| 1 4 |
| 2 5 |
| 3 6 |
Users:\command>
```

## -add

```
D:\CPE100\Assignment12\Untitled1.exe

>'generate'(g) [filename] [attribute] | create file text and data
>'show' [filename] | show data in file
>'transpose'(t) [input file] [output file] | transpose file input to output
>'add'(a) [input file 1] [input file 2] [output file] | add matrix between file input to output
>'subtract'(s) [input file 1] [input file 2] [output file] | subtract matrix between file input to output
>'scalarmultiplication'(sm) [input file 1] [output file] | multiply matrix between scalar input to output
>'matrixmultiplication'(mm) [input file 1] [input file 2] [output file] | multiply matrix between file input to output
>'cls' | clear screen

Users:\command>add t2.txt t4.txt t5.txt
read file 't2.txt' success
t2.txt is Matrix 3x2
| 1 1 |
| 2 3 |
| 5 0 |
read file 't4.txt' success
t4.txt is Matrix 3x2
| 1 4 |
| 2 5 |
| 3 6 |
read file 't5.txt' success
t5.txt is Matrix 3x2
| 2 5 |
| 4 8 |
| 8 6 |
Users:\command>
```

## -subtract

```
D:\CPE100\Assignment12\Untitled1.exe

>'generate'(g) [filename] [attribute]      create file text and data
>'show' [filename]                        show data in file
>'transpose'(t) [input file] [output file] transpose file input to output
>'add'(a) [input file 1] [input file 2] [output file] add matrix between file input to output
>'subtract'(s) [input file 1] [input file 2] [output file] subtract matrix between file input to output
>'scalarmultiplication'(sm) [input file 1] [output file] multiply matrix between scalar input to output
>'matrixmultiplication'(mm) [input file 1] [input file 2] [output file] multiply matrix between file input to output
>'cls'                                    clear screen

Users:\command>s t2.txt t4.txt t6.txt
read file 't2.txt' success
t2.txt is Matrix 3x2
| 1 1 |
| 2 3 |
| 5 0 |
read file 't4.txt' success
t4.txt is Matrix 3x2
| 1 4 |
| 2 5 |
| 3 6 |
read file 't6.txt' success
t6.txt is Matrix 3x2
| 0 -3 |
| 0 -2 |
| 2 -6 |
Users:\command>
```

## -scalarmultiplication

```
D:\CPE100\Assignment12\Untitled1.exe

>'generate'(g) [filename] [attribute]      create file text and data
>'show' [filename]                        show data in file
>'transpose'(t) [input file] [output file] transpose file input to output
>'add'(a) [input file 1] [input file 2] [output file] add matrix between file input to output
>'subtract'(s) [input file 1] [input file 2] [output file] subtract matrix between file input to output
>'scalarmultiplication'(sm) [input file 1] [output file] multiply matrix between scalar input to output
>'matrixmultiplication'(mm) [input file 1] [input file 2] [output file] multiply matrix between file input to output
>'cls'                                    clear screen

Users:\command>sm t1.txt t7.txt
read file 't1.txt' success
t1.txt is Matrix 2x3
| 1 2 3 |
| 4 5 6 |
input scalar:2
read file 't7.txt' success
t7.txt is Matrix 2x3
| 2 4 6 |
| 8 10 12 |
Users:\command>
```

## -matrixmultiplication

```
D:\CPE100\Assignment12\Untitled1.exe

>'generate'(g) [filename] [attribute]      create file text and data
>'show' [filename]                        show data in file
>'transpose'(t) [input file] [output file] transpose file input to output
>'add'(a) [input file 1] [input file 2] [output file] add matrix between file input to output
>'subtract'(s) [input file 1] [input file 2] [output file] subtract matrix between file input to output
>'scalarmultiplication'(sm) [input file 1] [output file] multiply matrix between scalar input to output
>'matrixmultiplication'(mm) [input file 1] [input file 2] [output file] multiply matrix between file input to output
>'cls'                                    clear screen

Users:\command>mm t1.txt t2.txt t3.txt
read file 't1.txt' success
t1.txt is Matrix 2x3
| 1 2 3 |
| 4 5 6 |
read file 't2.txt' success
t2.txt is Matrix 3x2
| 1 1 |
| 2 3 |
| 5 0 |
read file 't3.txt' success
t3.txt is Matrix 2x2
| 20 7 |
| 44 19 |
Users:\command>
```

ผลการประเมินตนเอง : 4