

Homework solutions 3

Homework

- Write a short Python script to write a file named `mystats.txt` with your name, office location and phone extension, each on a different line (or include other random information you prefer.)
- Write another short script that reads that file (`mystats.txt`) and displays each line something like this:

```
File mystats.txt contents are  
Line 1: Brian Toby  
Line 2: 401/B4196  
Line 3: 2-5488
```



Homework solution

- Write a short Python script to write a file named mystats.txt with your name, office location and phone extension, each on a different line (or include other random information you prefer.)

```
fp = open("mystats.txt", "w")
fp.write("Brian Toby\n")
fp.write("401/B4196\n")
fp.write("2-5488\n")
fp.close()
```



Homework solution

- Write another short script that reads that file (mystats.txt) and displays each line something like this:

```
File mystats.txt contents are
```

```
Line 1: Brian Toby
```

```
Line 2: 401/B4196
```

```
Line 3: 2-5488
```

```
file = "mystats.txt"
fp = open(file,"r")
print "File " + file + " contents are:"
i = 0
for line in fp:
    i += 1
    print "Line " + str(i) + ":",line[:-1]
fp.close()
```



Homework

- Write a short script that divides 10.0 by each value in this list [10, 5, 0, "zero"]
 - If there is no error, print out the result
 - When division by zero error occurs, print out "divide by zero error"
 - When an error occurs due to dividing by a string, print out "you can not do that!"



Homework: towards a solution

- Write a short script that divides 10.0 by each value in this list [10, 5, 0, "zero"]
 - If there is no error, print out the result
 - When division by zero error occurs, print out "divide by zero error"
 - When an error occurs due to dividing by a string, print out "you can not do that!"

Start with this:

```
for val in [10, 5, 0, "zero"]:  
    div = 10./val  
    print "10 divided by",val,"is",div
```

Result is this:

```
10 divided by 10 is 1.0  
10 divided by 5 is 2.0  
Traceback (most recent call last):  
  File "hw3b.py", line 2, in <module>  
    div = 10./val  
ZeroDivisionError: float division
```



Homework: towards a solution

Add try block to trap ZeroDivisionError:

```
for val in [10, 5, 0, "zero"]:  
    try:  
        div = 10./val  
    except ZeroDivisionError:  
        print "divide by zero error"  
    else:  
        print "10 divided by",val,"is",div
```

Result is this:

```
bht3:work toby$ python hw3b.py  
10 divided by 10 is 1.0  
10 divided by 5 is 2.0  
divide by zero error  
Traceback (most recent call last):  
  File "hw3b.py", line 3, in <module>  
    div = 10./val  
TypeError: unsupported operand type(s) for /: 'float' and 'str'
```



Homework solution

Add stanza for TypeError:

```
for val in [10, 5, 0, "zero"]:  
    try:  
        div = 10./val  
    except ZeroDivisionError:  
        print "divide by zero error"  
    except TypeError:  
        print "divide by '"+ str(val) + "'. You can not do that!"  
    else:  
        print "10. divided by",val,"is",div
```

Now we are done:

```
bht3:work toby$ python hw3b.py  
10. divided by 10 is 1.0  
10. divided by 5 is 2.0  
divide by zero error  
divide by 'zero'. You can not do that!
```

