

Try/except structure and Input function

Instructions:

1. ALL DUE TIMES ARE IN EST
2. **Upload a Python file to this BB Assignment.**
3. All answers must be in your own words, and copy-and-paste answers will receive no credit.
4. You must submit a .py file to be graded.
5. You are limited to 2 submissions
6. **You must be in the lab session to get the lab's credit.**

```
1 """
2
3
4
5
6 Instruct user how to prepare a 3 ml solution of
7 10 mM NaCl and 0.5 mM MgCl2, given stock solutions
8 of 1 M NaCl and 0.1 M MgCl2.
9 """
10
11
12
13     """Business logic"""
14
15     final_vol = 3 # use ml volumes throughout the program
16
17     # NaCl
18     nacl_stock = 1000 # use mM concentrations throughout the program
19     nacl_final = 10
20
21     # concatenation, notice how we are calculating something here!
22     step1 = "Add " + str(final_vol * (nacl_final / nacl_stock)) + " ml NaCl\n"
23
24     # MgCl2
```

```
25     mg_stock = 100
26     mg_final = 0.5
27
28     step2 = "Add " + str(final_vol * (mg_final / mg_stock)) + " ml MgCl2\n"
29
30     # Water
31     step3 = "Add water to a final volume of " + str(final_vol) + " ml and mix"
32
33     # Protocol, we can then just print things out b/c they have been formatted earlier
34     print(step1 + step2 + step3)
```

Rewrite the [protocol.py](#) program to get data from the user to dynamically change the results of the program. Also, modify the script to use a `try/except` structure to handle cases where the user enters invalid input (e.g., non-numeric values).

Call your program: dynamic_protocol.py.

Output Example:

```
Please enter the final volume of the solution (ml): 3
Please enter the NaCl stock (mM): 1000
Please enter the NaCl final (mM): 10
Please enter the MgCl2 stock (mM): 100
Please enter the MgCl2 final (mM): 0.5
Add 0.03 ml NaCl
Add 0.015 ml MgCl2
Add water to a final volume of 3.0 ml and mix
```