

Lab 3: Errors, Exceptions & Methods

SUNY Korea - Francois Rameau

Spring 2023

GitHub Classroom



Lab 3 - Errors and Exceptions

Exceptions

Expected errors



- Why would you ever expect errors?
- If you can expect something, can't you prevent that?

Types of exceptions

- IndexError
- ImportError
- MemoryError
- NameError
- OverflowError
- RecursionError
- TypeError
- ZeroDivisionError
- ... and many more!



Exceptions

What happens if exception occurs?



- Do we just give up?
- Sometimes we need to salvage as much as possible

Try-except block



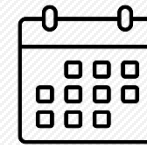
- **Try:** Attempt to execute a 'suspicious' set of codes
- e.g., division, file opening, network connection, etc.
- **Except:** If something bad happens, stop the execution and call an emergency routine

```
try:  
    <Your statements here>  
except <Name of first exception you wish to handle>:  
    <Your emergency code here>  
except <Name of first exception you wish to handle>:  
    <Your other emergency code here>  
else:  
    <If no exception...>
```

Exercise

We receive the user's birth year, month and day from the `input()` function

Input format



- Year format should be YYYY (e.g., 2002)
- Month should be MM (e.g., 05)
- Day should be DD (e.g., 01)

Goal: Your code should print out a number of the form 'YYMMDD'

- E.g., '020501' for the above example
- The 'YY' part is the last two digits of the year (Hint: use the modulo operator)

Closely examine the skeleton code (lab3.py) to infer the data types

- You are not allowed to change existing codes
- Only fill in the 'TODO' parts

You are expected to
finish this task in less
than 60min

Exercise

All input should be valid numbers!
If an input is invalid, a '00' should instead be used

Task 1 Use exception handling to take care of the number format

- These dates should strictly consist of numbers
- Forcibly converting a non-numeric string to a number will result in an exception

Task 2 Use string methods to achieve the same result

- How do you find out if the string consists of numbers?
- You can find the appropriate method in the class slides or in the python documentation