# CS 0011 SEC 1020

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# House Keeping

- Sessions
    - I will record the labs to allow for people to attend in different time zones
    - Recording links can be found on Canvas after class
- Next labs
    - I will post the next lab links on Canvas and they will be on PittBox.
- Questions
    - If you can't access something, don't understand something, or need extra help PLEASE EMAIL!

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# House Keeping

- Labs
  - Submit your labs to PittBox by end of Lab
    - Even if you are not finished!
    - I will reach out to you separately during the week if your lab has errors
  - No exact due date until Prof Barbosa announces it
- Projects
  - Full projects
    - Made up of three labs
  - Complete projects will be sent to Prof Barbosa

# Lab 1 Review

- Concepts
  - Input
  - Output
  - Importing and using Python Packages

# Inputs in Python

- Python Input Function
  - String

```
1   name = str(input("What is your name? "))
```

  - Int

```
4   eq_result = int(input("How old are you? "))
```

# Outputs in Python

- Python Output Function
  - String

```
1   name = str(input("What is your name? "))
2   print(name)
```

  - Int

```
4   eq_result = int(input("How old are you? "))
5   print(eq_result)
```

```
What is your name? Katelyn
Katelyn
How old are you? 21
21
```

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# Outputs in Python

- Python Output Function
  - Floats

```python
exact_age = float(input("Enter you exact age: "))
print("You are exactly {:.2f}".format(exact_age))
```

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# Outputs in Python

- Cleaning up Output

My input

```
What is your name? Katelyn
Katelyn
How old are you? 21
21
```

```
What is your name?
Katelyn
Your name is Katelyn
```

My input

```
Enter you exact age: 21.7568
You are exactly 21.76
```

Outputting float (rounded)

# Outputs and Inputs in Lab1

- Consider the type of variable you need
  - Cost
  - Fuel
  - Days
  - Seconds
- Refer to examples in Lab 2

# Importing and Using Packages

- What are packages?
- Where to find Python Packages?
  - [pypi.org](pypi.org)
- Importing packages
  - Generally, always import all packages in the beginning

# Importing and Using Packages

```python
import math

name = str(input("What is your name? "))
print(name)

eq_result = int(input("How old are you? "))
print(eq_result)

sqrt_age = math.sqrt(eq_result)
print(sqrt_age)
print("Cleaned sqrt: {:.4f}".format(sqrt_age))
```

```
What is your name? Katelyn
Katelyn
How old are you? 21
21
4.58257569495584
Cleaned sqrt: 4.5826
```

```
1
2
3    name = str(input("What is your name? "))
4    print(name)
5
6    eq_result = int(input("How old are you? "))
7    print(eq_result)
8
9    sqrt_age = math.sqrt(eq_result)
10
11   import math
12
13   print(sqrt_age)
14   print("Cleaned sqrt: {:.4f}".format(sqrt_age))
```

Using sort function from Math Package before import

Importing package after use

```
What is your name? Katelyn
Katelyn
How old are you? 21
21
Traceback (most recent call last):
  File "recitation2.py", line 9, in <module>
    sqrt_age = math.sqrt(eq_result)
NameError: name 'math' is not defined
```

# Lab 2

- Asking user which output format they want
  - CSV
    - Comma separated values
  - User Friendly
    - Will need to have mu editor full screen to make sure it outputs correctly