COMP 110

Fall 2021 - Section 002 - In-person - 11am

Class 07 - Control Flow Practice

Today's Goals

1. Announcements

2. Practice and review functions and control flow statements

Challenge Question #1

```python
"""Challenge Question #1"""


def silly(n: int) -> str:
    """A silly function."""
    result: str = ""
    i: int = 0
    h: int
    while i < n:
        if i > 0:
            result = result + "h"
        h = i + 1
        while h > 0:
            result = result + "e"
            h = h - 1
        i = i + 1
    return result


print(silly(3))
```

Challenge Question #2

```python
1    """CQ2. Function Calls"""
2
3
4    def a(x: int) -> int:
5        """A function."""
6        x = x // 2
7        if x == 1:
8            return 0
9        else:
10            return 1
11
12
13    def b(x: int) -> int:
14        """Another function."""
15        x = a(x + 1)
16        return x
17
18
19    x: int = 2
20    print(b(x))
```

Challenge Question #3

```python
"""CQ3. A main Function."""


def main() -> None:
    """The program's entrypoint."""
    print("main()")
    y: float = double(2.0)
    print(halve(y))



def halve(x: float) -> float:
    """Hlave a value."""
    print(f"halve({x})")
    return x / 2.0



def double(x: float) -> float:
    """Double a value."""
    print(f"double({x})")
    return x * 2.0



if __name__ == "__main__":
    print("__name__ is '__main__'")
    main()
```