

Agenda

- Announcements
- Diagram Practice
 - References of Lists as Parameters
 - == vs is
- Exception/Error Handling 101
 - raise
 - try / except
- Iteration and Iterators
 - for in demo
 - "Black Box" abstractions
 - Range Objects (construct/start/stop/step)
 - Iterator Objects (construct/next)
 - The for in
- Debugging

```
1 from typing import List
2
3
4 def main() -> None:
5     """Entrypoint of program."""
6     letters = ["a", "b", "c"]
7     digits = ["1", "2"]
8     print(extend(letters, digits))
9     print(letters)
10    print(digits)
11
12
13 def extend(a: List[str], b: List[str]) -> None:
14     """Extend first list by second, with mutation."""
15     i: int = 0
16     while i < len(b):
17         a.append(b[i])
18         i += 1
19
20
21 if __name__ == "__main__":
22     main()
23
```

```
1  from typing import List
2
3
4  def main() -> None:
5      """Entrypoint of program."""
6      letters = ["a", "b", "c"]
7      digit = "1"
8      print(append_one(letters, digit))
9      print(letters)
10     print(digit)
11
12
13  def append_one(a: List[str], b: str) -> List[str]:
14      """ """
15      result: List[str] = []
16      i: int = 0
17      while i < len(a):
18         result.append(a[i])
19         i += 1
20     result.append(b)
21     return result
22
23
24  if __name__ == "__main__":
25     main()
```