

Breakfast bot code



This reference sheet shows both versions of the finished program—before refactoring and after refactoring.

Before refactoring

```
import time

print("Hello! I am Bob, the Breakfast Bot.")
time.sleep(2)
print("Today we have two breakfasts available.")
time.sleep(2)
print("The first is waffles with strawberries and whipped cream.")
time.sleep(2)
print("The second is sweet potato pancakes with butter and syrup.")
time.sleep(2)

while True:
    while True:
        response = input("Please place your order. "
                        "Would you like waffles or pancakes?\n").lower()
        if "waffles" in response:
            print("Waffles it is!")
            time.sleep(2)
            break
        elif "pancakes" in response:
            print("Pancakes it is!")
            time.sleep(2)
            break
        else:
            print("Sorry, I don't understand.")
            time.sleep(2)
    print("Your order will be ready shortly.")
    time.sleep(2)
    while True:
        order_again = input("Would you like to place another order? "
                            "Please say 'yes' or 'no'.\n").lower()
        if 'no' in order_again:
            print("OK, goodbye!")
            time.sleep(2)
```

```

        break
    elif 'yes' in order_again:
        print("Very good, I'm happy to take another order.")
        time.sleep(2)
        break
    else:
        print("Sorry, I don't understand.")
        time.sleep(2)
if 'no' in order_again:
    break

```

After refactoring

```

import time

def print_pause(message_to_print):
    print(message_to_print)
    time.sleep(2)

def valid_input(prompt, option1, option2):
    while True:
        response = input(prompt).lower()
        if option1 in response:
            break
        elif option2 in response:
            break
        else:
            print_pause("Sorry, I don't understand.")
    return response

def intro():
    print_pause("Hello! I am Bob, the Breakfast Bot.")
    print_pause("Today we have two breakfasts available.")
    print_pause("The first is waffles with strawberries and whipped cream.")
    print_pause("The second is sweet potato pancakes with butter and syrup.")

def get_order():
    response = valid_input("Please place your order. "
                           "Would you like waffles or pancakes?\n",
                           "waffles", "pancakes")

```

```
if "waffles" in response:
    print_pause("Waffles it is!")
elif "pancakes" in response:
    print_pause("Pancakes it is!")
print_pause("Your order will be ready shortly.")

def order_again():
    response = valid_input("Would you like to place another order? "
                           "Please say 'yes' or 'no'.\n",
                           "yes", "no")

    if "no" in response:
        print_pause("OK, goodbye!")
    elif "yes" in response:
        print_pause("Very good, I'm happy to take another order.")
        get_order()

def order_breakfast():
    intro()
    get_order()
    order_again()

order_breakfast()
```