



```
MENU = {  
    "espresso": {  
        "ingredients": {  
            "water": 50,  
            "coffee": 18,  
        },  
        "cost": 1.5,  
    },  
    "latte": {  
        "ingredients": {  
            "water": 200,  
            "milk": 150,  
            "coffee": 24,  
        },  
        "cost": 2.5,  
    },  
    "cappuccino": {  
        "ingredients": {  
            "water": 250,  
            "milk": 100,  
            "coffee": 24,  
        },  
        "cost": 3.0,  
    },  
}
```

```
profit = 0  
resources = {  
    "water": 300,  
    "milk": 200,  
    "coffee": 100,  
}  
is_on = True
```

```
while is_on:
    # TODO 1: Prompt user by asking "What would you like? (espresso/latte/cappuccino):"
    coffee_selection = input("What would you like? (espresso/latte/cappuccino):").lower()
    # TODO 2: Turn off the Coffee Machine by entering "off" to the prompt.
    if coffee_selection == "off":
        is_on = False

    # TODO 3: Print report.
    elif coffee_selection == 'report':
        print(f"""
        Water: {resources["water"]}
        Milk: {resources["milk"]}
        Coffee: {resources["coffee"]}
        Money: ${profit}
        """)
    else:
        drink = MENU[coffee_selection]
        # TODO 4: Check resources sufficient?
        if check_resources(drink["ingredients"]):
            # TODO 5: Process coins
            payment = process_coins()
            # TODO 6: Check transaction successful?
            if is_transaction_success(payment, drink["cost"]):
                # TODO 7: Make Coffee
                make_coffee(coffee_selection, drink["ingredients"])
```



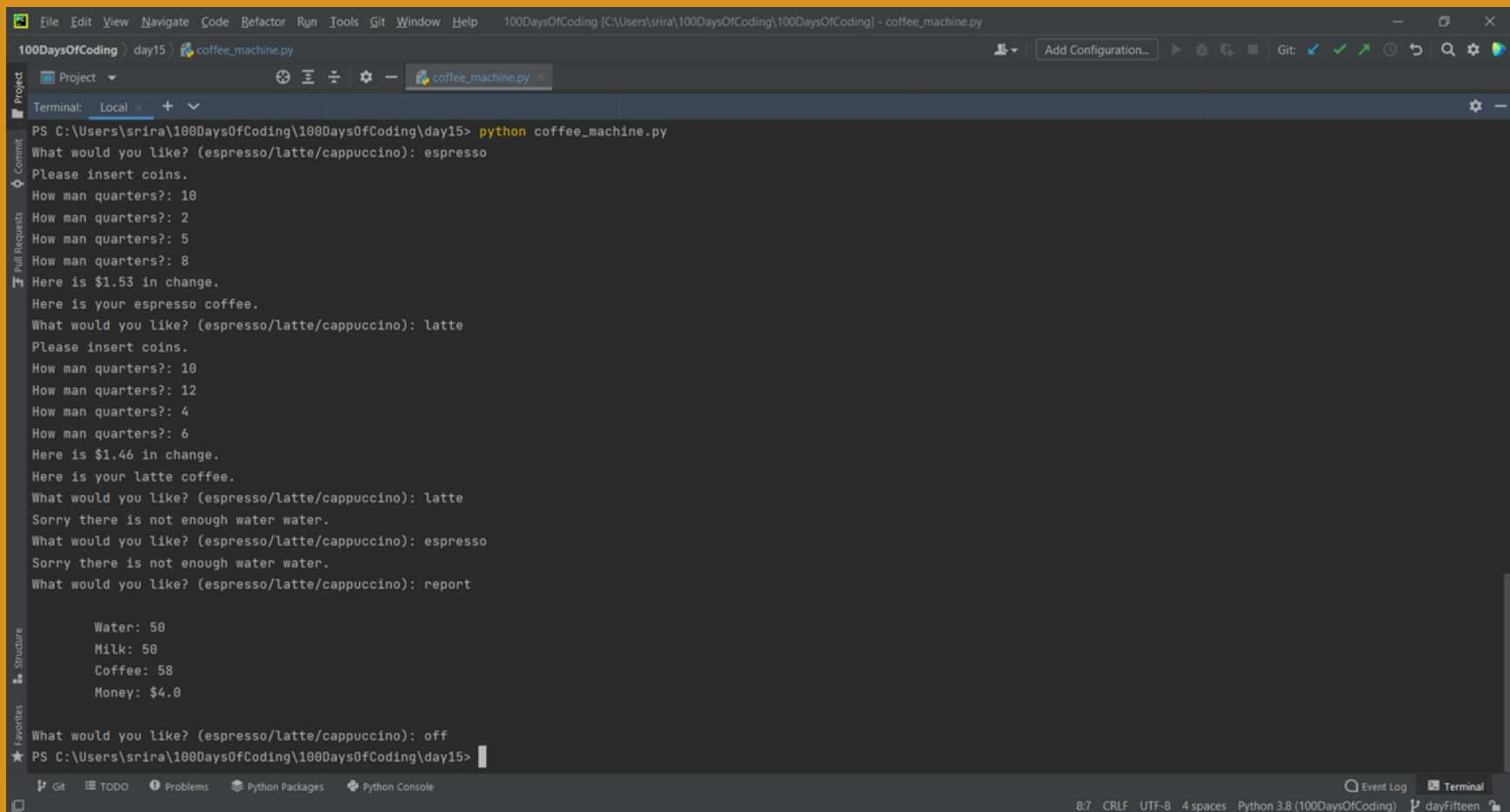
```
def is_transaction_success(money_received, drink_cost):  
    """Return True when the payment is accepted. or False if money is insufficient."""  
    if money_received >= drink_cost:  
        change = round(money_received - drink_cost, 2)  
        print(f"Here is ${change} in change.")  
        global profit  
        profit += drink_cost  
        return True  
    else:  
        print("Sorry that's not enough money, Money refunded.")  
        return False  
  
def make_coffee(drink_name, order_ingredients):  
    """Deduct the required ingredients from the resources."""  
    for item in order_ingredients:  
        resources[item] -= order_ingredients[item]  
    print(f"Here is your {drink_name} coffee.")
```



```
def check_resources(order_ingredients):  
    """Return True when order can be made, False if ingredients are insufficient."""  
    for item in order_ingredients:  
        if order_ingredients[item] >= resources[item]:  
            print(f"Sorry there is not enough {item} water.")  
            return False  
    return True  
  
def process_coins():  
    """Returns the total calculated from coins inserted"""  
    print("Please insert coins.")  
    total = int(input("How many quarters?: ")) * 0.25  
    total += int(input("How many quarters?: ")) * 0.1  
    total += int(input("How many quarters?: ")) * 0.05  
    total += int(input("How many quarters?: ")) * 0.01  
    return total
```



OUTPUT



```
File Edit View Navigate Code Refactor Run Tools Git Window Help 100DaysOfCoding [C:\Users\srira\100DaysOfCoding\100DaysOfCoding] - coffee_machine.py
100DaysOfCoding day15 coffee_machine.py
Terminal: Local x + v
PS C:\Users\srira\100DaysOfCoding\100DaysOfCoding\day15> python coffee_machine.py
What would you like? (espresso/latte/cappuccino): espresso
Please insert coins.
How man quarters?: 10
How man quarters?: 2
How man quarters?: 5
How man quarters?: 8
Here is $1.53 in change.
Here is your espresso coffee.
What would you like? (espresso/latte/cappuccino): latte
Please insert coins.
How man quarters?: 10
How man quarters?: 12
How man quarters?: 4
How man quarters?: 6
Here is $1.46 in change.
Here is your latte coffee.
What would you like? (espresso/latte/cappuccino): latte
Sorry there is not enough water water.
What would you like? (espresso/latte/cappuccino): espresso
Sorry there is not enough water water.
What would you like? (espresso/latte/cappuccino): report

    Water: 50
    Milk: 50
    Coffee: 58
    Money: $4.0

What would you like? (espresso/latte/cappuccino): off
★ PS C:\Users\srira\100DaysOfCoding\100DaysOfCoding\day15>
```

8:7 CRLF UTF-8 4 spaces Python 3.8 (100DaysOfCoding) dayfifteen

THANK
YOU