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class Beverage:  
 def \_\_init\_\_(self, name, price):  
 self.name = name  
 self.price = price  
  
 def \_\_str\_\_(self):  
 return f"{self.name} - ${self.price:.2f}"  
  
  
class VendingMachine:  
 def \_\_init\_\_(self):  
 # Initialize a list of 6 beverages  
 self.beverages = [  
 Beverage("Coke", 1.50),  
 Beverage("Pepsi", 1.40),  
 Beverage("Water", 1.00),  
 Beverage("Orange Juice", 2.00),  
 Beverage("Coffee", 1.80),  
 Beverage("Tea", 1.60)  
 ]  
  
 def display\_beverages(self):  
 print("\nAvailable beverages:")  
 for idx, beverage in enumerate(self.beverages, 1):  
 print(f"{idx}. {beverage}")  
  
 def get\_beverage(self, selection):  
 # Check if selection is valid (1-6)  
 if 1 <= selection <= len(self.beverages):  
 return self.beverages[selection - 1]  
 else:  
 return None  
  
 def process\_transaction(self, selected\_beverage, amount\_inserted):  
 if amount\_inserted < selected\_beverage.price:  
 print(f"Insufficient funds! Please insert at least ${selected\_beverage.price - amount\_inserted:.2f} more.")  
 return False  
 elif amount\_inserted == selected\_beverage.price:  
 print(f"Exact amount received. Dispensing {selected\_beverage.name}. Enjoy!")  
 return True  
 else:  
 change = amount\_inserted - selected\_beverage.price  
 print(f"Dispensing {selected\_beverage.name}. Change to return: ${change:.2f}. Enjoy!")  
 return True  
  
 def run(self):  
 while True:  
 self.display\_beverages()  
 try:  
 choice = int(input("\nSelect a beverage by number (1-6) or 0 to quit: "))  
 if choice == 0:  
 print("Thank you for using the vending machine. Goodbye!")  
 break  
  
 selected\_beverage = self.get\_beverage(choice)  
 if selected\_beverage:  
 print(f"\nYou selected {selected\_beverage.name}. It costs ${selected\_beverage.price:.2f}.")  
 while True:  
 try:  
 amount\_inserted = float(input("Please insert money: $"))  
 if amount\_inserted <= 0:  
 print("Please insert a valid amount of money.")  
 continue  
 if self.process\_transaction(selected\_beverage, amount\_inserted):  
 break  
 except ValueError:  
 print("Invalid input. Please enter a valid amount.")  
 else:  
 print("Invalid selection. Please choose a valid beverage.")  
 except ValueError:  
 print("Invalid input. Please enter a number between 1 and 6, or 0 to quit.")  
  
  
# Create a VendingMachine object and run the simulation  
vending\_machine = VendingMachine()  
vending\_machine.run()

***Output example***

Available beverages:

1. Coke - $1.50

2. Pepsi - $1.40

3. Water - $1.00

4. Orange Juice - $2.00

5. Coffee - $1.80

6. Tea - $1.60

Select a beverage by number (1-6) or 0 to quit: 1

You selected Coke. It costs $1.50.

Please insert money: $2

Dispensing Coke. Change to return: $0.50. Enjoy!

Available beverages:

1. Coke - $1.50

2. Pepsi - $1.40

3. Water - $1.00

4. Orange Juice - $2.00

5. Coffee - $1.80

6. Tea - $1.60

Select a beverage by number (1-6) or 0 to quit: 4

You selected Orange Juice. It costs $2.00.

Please insert money: $10

Dispensing Orange Juice. Change to return: $8.00. Enjoy!

Available beverages:

1. Coke - $1.50

2. Pepsi - $1.40

3. Water - $1.00

4. Orange Juice - $2.00

5. Coffee - $1.80

6. Tea - $1.60

Select a beverage by number (1-6) or 0 to quit: