▾ Coffee machine

```
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,
    }
}

resources = {
    "water": 300,
    "milk": 200,
    "coffee": 100,
}


ingr=["water","coffee"]
def coffee():
  order=input("What would you like? (espresso/latte/cappuccino): ")
  if order == "espresso":
    return "espresso"
  elif order == "latte":
    return "latte"
  elif order == "cappuccino":
    return "capuccino"
  elif order == "off":
    return "off"
  elif order =="report":
    return "report"
```

```python
    else:
      coffee()

  def coins():
    print("Please insert coins.")
    q=int(input("how many quarters?: "))*0.25
    d=int(input("how many dimes?: "))*0.1
    n=int(input("how many nickels?: "))*0.05
    p=int(input("how many pennies?: "))*0.01
    total=q+d+n+p
    return total

  def resc(coste):
    if coste == "espresso":
      for i in ingr:
        if resources[i]>MENU["espresso"]["ingredients"][i]:
          resources[i]-= MENU["espresso"]["ingredients"][i]
        else:
          print(f"Sorry there is not enough {i}")
          coffee()
    else:
      for i in resources:
        if resources[i]>MENU[coste]["ingredients"][i]:
          resources[i]-= MENU[coste]["ingredients"][i]
        else:
          print(f"Sorry there is not enough {i}")
          coffee()


  def change():
    money=0
    should_stop = False
    while not should_stop:
      coste=coffee()
      if coste=="off":
        return
      elif coste=="report":
        for i in resources:
          if i=="coffee":
            unit="mg"
          else:
            unit="ml"
          print(f"{i}: {resources[i]} {unit}")
        print(f"Money: ${money}")
        coste=coffee()
        if coste=="off":
          return

      a=resc(coste)
      expense=coins()
      r=MENU[coste]["cost"]
```

```
    total=round(expense-r,2)
    money += r
    if total>0:
      print(f"here is ${total} in change.")
      print(f"Here is your {coste}. Enjoy!")
    else:
      print("Sorry that's not enough money. Money refunded.")

change()
```

```
What would you like? (espresso/latte/cappuccino): latte
Please insert coins.
how many quarters?: 10
how many dimes?: 10
how many nickels?: 10
how many pennies?: 10
here is $1.6 in change.
Here is your latte. Enjoy!
What would you like? (espresso/latte/cappuccino): espresso
Please insert coins.
how many quarters?: 10
how many dimes?: 10
how many nickels?: 10
how many pennies?: 10
here is $2.6 in change.
Here is your espresso. Enjoy!
What would you like? (espresso/latte/cappuccino): report
water: 50 ml
milk: 50 ml
coffee: 58 mg
Money: $4.0
What would you like? (espresso/latte/cappuccino): off
```

Colab paid products - Cancel contracts here

✓ 21s   completed at 22:26 ● ✕