webshop.py

```python
#-----------------------------------------
#Oppgaver
#-----------------------------------------
def print_ware_information(ware):
    '''Funksjonsbeskrivelse: Printer ut informasjon om en spesifisert vare.'''

def calculate_average_ware_rating(ware):
    ''''Returnerer den gjennomsnittlige ratingen for en spesifisert vare.'''

def get_all_wares_in_stock(all_wares):
    '''Returnerer en dictionary med alle varer som er på lager.'''

def is_number_of_ware_in_stock(ware, number_of_ware):
    '''Returnerer en Boolean-verdi som representerer om et spesifisert antall av
en gitt vare finnes på lager.'''

def add_number_of_ware_to_shopping_cart(ware_key, ware, shopping_cart,
number_of_ware):
    '''Legger til et spesifisert antall av en gitt vare i en spesifisert
handlevogn.'''

def calculate_shopping_cart_price(shopping_cart, all_wares, tax):
    '''Returnerer prisen av en handlevogn basert på varene i den.'''

def can_afford_shopping_cart(shopping_cart_price, wallet):
    '''Returnerer en Boolean-verdi basert på om det er nok penger i en gitt
Lommebok for å kjøpe en handlevogn.'''

def buy_shopping_cart():
    '''Kjøper varene i en handlevogn. Parameterene defineres i oppgaven.'''

#-----------------------------------------
# Predefinerte funksjoner
#-----------------------------------------
def is_ware_in_stock(ware):
    '''Returnerer en Boolean-verdi som representerer om en vare er på lager.'''
    if ware["number_in_stock"] >= 1:
        return True
    else:
        return False

def clear_shopping_cart(shopping_cart):
    '''Tømmer en handlevogn.'''
    shopping_cart.clear()
```

wallet.py

```python
class Wallet:
    def __init__(self, amount):
        self.amount = amount


    def get_amount(self):
        return self.amount
```

```python
    def subtract_amount(self, value):
        self.amount -= value
```

```python
import webshop as ws
from wallet import Wallet

all_wares = {
    "amd_processor": {
        "name": "AMD Ryzen 9 5900X Processor",
        "price": 5590.0,
        "number_in_stock": 50,
        "ratings": [4.5, 4.0, 5.0, 5.0, 4.5, 3.0],
        "description": "All the cores and threads you'll need!",
    },

    "playstation_5": {
        "name": "PlayStation 5",
        "price": 5999.0,
        "number_in_stock": 0,
        "ratings": [5.0, 5.0, 4.5, 2.0, 5.0, 4.5, 4.0],
        "description": "Next generation console, never in stock!",
    },

    "hdmi_cable": {
        "name": "Belkin Ultra High Speed HDMI Cable - 2m",
        "price": 349.0,
        "number_in_stock": 3,
        "ratings": [5.0, 5.0, 4.5, 5.0, 5.0, 5.0],
        "description": "A high speed overprices HDMI cable!",
    }
}


# Filtrer ut alle varer som er på lager og skriv ut informasjonen for hver av dem
all_wares_in_stock = ws.get_all_wares_in_stock(all_wares)
for ware in all_wares_in_stock.values():
    ws.print_ware_information(ware)

# Skriv ut den gjennomsnittlige ratingen for denne varen
print(f"Average rating for the AMD Processor:
{ws.calculate_average_ware_rating(all_wares['amd_processor'])}")
print()

# Oppretter en tom handlevogn
```

```python
shopping_cart = {}

# Forsøker å legge til 1 amd processor, 2 playstation 5 konsoller og 3 hdmi kabler
ws.add_number_of_ware_to_shopping_cart("amd_processor",
all_wares["amd_processor"], shopping_cart)
ws.add_number_of_ware_to_shopping_cart ("playstation_5",
all_wares["playstation_5"], shopping_cart, 2)
ws.add_number_of_ware_to_shopping_cart ("hdmi_cable", all_wares["hdmi_cable"],
shopping_cart, 4)

# skriver ut handlevognen
print()
print(f"The shopping cart: {shopping_cart}")
print()

# Oppretter en lommebok som inneholder 10000 kr
wallet = Wallet(10000)

# Forsøker å kjøpe varene i handlevognen
ws.buy_shopping_cart('''Parameterne blir definert i oppgaven''')
print()

# Skriver ut mengden penger i lommeboka etter kjøpet
print(f"The amount in the wallet after the purchase: {wallet.get_amount()}")
```

webshop_frontend.py - Output

Name: AMD Ryzen 9 5900X Processor
Price: 5590,-
Number in stock: 50
Description: All the cores and threads you'll need!

Name: Belkin Ultra High Speed HDMI Cable - 2m
Price: 349,-
Number in stock: 24
Description: A high speed overpriced HDMI cable!

Average rating for the AMD Processor: 4.3

1 instance(s) of AMD Ryzen 9 5900X Prosessor were added to the shopping cart.
Playstation 5 is not in stock and could not be added to the shopping cart.
Only 3 instance(s) of Belkin Ultra High Speed HDMI Cable - 2m were in stock. These were added to the shopping cart.

The shopping cart: {'amd_processor': 1, 'hdmi_cable': 3}

Purchasing 1 of AMD Ryzen 9 5900X Prosessor
Purchasing 3 of Belkin Ultra High Speed HDMI Cable - 2m

The total price will be 8296.25
Transaction finished. Wares bought:
{'amd_processor': 1, 'hdmi_cable': 3}

The amount in the wallet after the purchase: 1703.75

Process finished with exit code 0