vishnu-265-lab3-4

August 12, 2023

[16]:
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#Lab Exercise 3
#Write a function in Python with a string such that it accepts a parameter-␣
 ↪"stringsplit". This encoded string will contain your name, domain name and␣
 ↪register number. You can separate the values in the string by any number of␣
 ↪underscores. [The string should not contain any other underscore symbols in␣
 ↪your name, domain name and register number]. The function should return a␣
 ↪Python dictionary with your name, domain name and register number.



def fun(stringsplit):
    string = stringsplit.split('_')
    lst = [space.strip() for space in string if space.strip()]

    dict = {
        "Name": lst[0],
        "Domain_name": lst[1],
        "Register_Number": lst[2]
    }
    return dict

details=input(("Enter Your Details in the order of your Name, domain name and␣
 ↪register number : "))
result = fun(details)
print(result)
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{'Name': 'Vishnu Swaroop', 'Domain_name': 'Pharmacy', 'Register_Number':
'2347265'}
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#Lab Exercise 4
#Write a Python program to implement the object-oriented concepts of multiple,␣
 ↪Multilevel and Hierarchical Inheritances using your domain applications.

#1. Multiple Inheritance:
class Medicine:
    def __init__(self, name, price):
        self.name = name
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        self.price = price

class Inventory:
    def __init__(self):
        self.medicines = []

    def add_medicine(self, medicine):
        self.medicines.append(medicine)

class Pharmacy(Medicine, Inventory):
    def __init__(self, name, address):
        Medicine.__init__(self, name, 0)
        Inventory.__init__(self)
        self.address = address

    def set_price(self, medicine_name, price):
        for med in self.medicines:
            if med.name == medicine_name:
                med.price = price
                break

pharmacy = Pharmacy("Pharmco Pharma", "Calicut,Kerala")
medicine1 = Medicine("Paracetamol 650", 0)
pharmacy.add_medicine(medicine1)
pharmacy.set_price("Paracetamol 650",15)

print(f"{pharmacy.name} - {pharmacy.address}")
print(f"{pharmacy.medicines[0].name}: ${pharmacy.medicines[0].price}")
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Pharmco Pharma - Calicut,Kerala
Paracetamol 650: $15
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#Multilevel Inheritance:

class Medicine:
    def __init__(self, name, price):
        self.name = name
        self.price = price

class Order(Medicine):
    def __init__(self, name, price, quantity):
        super().__init__(name, price)
        self.quantity = quantity

    def calculate_total(self):
        return self.price * self.quantity
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class Customer(Order):
    def __init__(self, name, medicine_name, price, quantity):
        super().__init__(medicine_name, price, quantity)
        self.customer_name = name

    def display_invoice(self):
        total = self.calculate_total()
        print(f"Customer: {self.customer_name}")
        print(f"Medicine: {self.name} - {self.quantity} units")
        print(f"Total amount: ${total}")

customer_order = Customer("Vishnu Swaroop", "Paracetamol 650", 15,200)
customer_order.display_invoice()
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Customer: Vishnu Swaroop
Medicine: Paracetamol 650 - 200 units
Total amount: $3000
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#Hierarchical Inheritance:

class Medicine:
    def __init__(self, name, price):
        self.name = name
        self.price = price

class Prescription(Medicine):
    def __init__(self, name, price, doctor_name):
        super().__init__(name, price)
        self.doctor_name = doctor_name

    def display_prescription(self):
        print(f"Medicine: {self.name}")
        print(f"Price: ${self.price}")
        print(f"Doctor: {self.doctor_name}")

class Usage(Medicine):
    def __init__(self, name, price, usage):
        super().__init__(name, price)
        self.usage = usage

    def display_usage(self):
        print(f"Medicine: {self.name}")
        print(f"Price: ${self.price}")
        print(f"Usage: {self.usage}")

prescription_med = Prescription("Allopathic medicine", 25, "Dr. Smith")
usage_med = Usage("Cetirizine", 10, "Twice Daily")
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prescription_med.display_prescription()
usage_med.display_usage()
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Medicine: Allopathic medicine
Price: $25
Doctor: Dr. Smith
Medicine: Cetirizine
Price: $10
Usage: Twice Daily
```