Leonard Blam 900086

Homework 3 Python

Code:

#part 1a

print("Part 1: Enter 2 strings: ")

first = input()

second = input()

while first == second:

    print("The two strings are the same")

    break

else:

    print("The two strings are different")

#part 1b

while first[0] == second[0] or first[1] == second[1]:

    print("The two strings have the same first letter")

    break

else:

    print("The two strings do not have the same first letter")

#part 1c

while first[0] == second[1] or first[1] == second[0]:

    print("the first letter of the first string is the same as the second letter of the second string")

    break

else:

    print("the first letter of the first string is not the same as the second letter of the second string")

#part 2

print("part 2: ")

class Student:

    def \_\_init\_\_(self, id,served, degree, tall, weight):

        self.id = id

        self.served = served

        self.degree = degree

        self.tall = tall

        self.weight = weight

        self.legit = False

    def \_\_repr\_\_(self) -> str:

        while self.served == True:

            while self.degree >= 85:

                while self.tall > 1.70:

                    while self.weight > 60:

                        self.legit = True

                        break

                    break

                break

            break

        return f'Student ({self.id}) is acceptable as a security person: {self.legit}'

alex = Student(123456789, True, 90, 1.80, 80)

felix = Student(987654321, True, 80, 1.60, 50)

print(alex)

print(felix)

#part 3

print("part 3: ")

a = input("Enter a number: ")

b = input("Enter a number: ")

#determinates the quotient and remainder

quotient = int(a) // int(b)

remainder = int(a) % int(b)

print(f'The numbers: {a} and {b}: The quotient is {quotient} and the remainder is {remainder}')

#part 4

#redo part 1 with try and except

print("part 4: ")

try:

    print("Part 1: Enter 2 numbers: ")

    first = int(input())

    second = int(input())

    while first == second:

        print("The two strings are the same")

        break

    #part 1b

    while first[0] == second[0] or first[1] == second[1]:

        print("The two strings have the same first letter")

        break

    #part 1c

    while first[0] == second[1] or first[1] == second[0]:

        print("the first letter of the first string is the same as the second letter of the second string")

        break

except:

    print("Error: please enter 2 numbers")

#part 5

print("part 5: ")

age = int(input("Enter your age: "))

martial\_status = bool(input("Enter your martial status: "))

children = bool(input("Do you have children? "))

if age >= 30 and martial\_status == True and children == True:

    print("You are entitled for cheap mortgage")

else:

    print("You are not entitled for cheap mortgage")

#part 6

print("part 6: ")

print("Enter your spend amount: ")

spend = int(input())

if spend >= 500 and spend < 1000:

    discount = spend - 0.1 \* spend

elif spend >= 1000 and spend < 2000:

    discount = spend - 0.2 \* spend

elif spend >= 2000:

    discount = spend - 0.25 \* spend

elif spend > 3000:

    discount = spend - ((spend \* 0.3 + (spend - 2000) \* 0.4))

print(f'You amount before discount is {spend} and your amount after discount is {discount}')

Result:

PS D:\Dokumente\Python> python HW3.py

Part 1: Enter 2 strings:

hello

hi

The two strings are different

The two strings have the same first letter

the first letter of the first string is not the same as the second letter of the second string

part 2:

Student (123456789) is acceptable as a security person: True

Student (987654321) is acceptable as a security person: False

part 3:

Enter a number: 20

Enter a number: 10

The numbers: 20 and 10: The quotient is 2 and the remainder is 0

part 4:

Part 1: Enter 2 numbers:

20

e

Error: please enter 2 numbers

part 5:

Enter your age: 31

Enter your martial status: True

Do you have children? Yes

You are entitled for cheap mortgage

part 6:

Enter your spend amount:

1000

You amount before discount is 1000 and your amount after discount is 800.0

PS D:\Dokumente\Python>