# -\*- coding: utf-8 -\*-

"""

Created on Tue Jan 13 14:07:19 2015

@author: WQU

"""

import math

def square(x):

ans = x\*\*2

return ans

**# This code will run fine except if there is a wrong input**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

def get\_simple\_interest():

p = float(input("Enter a decimal value for the principal: "))

r = input("Enter a decimal value for the interest rate: ")

t = int(input("Enter the duration of the loan: "))

try:

i = p\*r\*t

except ValueError:

print("Incorrect values entered, program exiting")

return #this line simply causes the function to exit

return i

**# I get a type error each time I try to call the function. The variable ‘r’ needs to be a float. I included a float function to it thus:**

**r = *float*(input("Enter a decimal value for the interest rate: "))**

def get\_simple\_interest():

p = float(input("Enter a decimal value for the principal: "))

r = float(input("Enter a decimal value for the interest rate: "))

t = int(input("Enter the duration of the loan: "))

try:

i = p\*r\*t

except ValueError:

print("Incorrect values entered, program exiting")

return #this line simply causes the function to exit

return i

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

def compound\_interest(p, r, t):

#A = Pe^(rt)

#where: P = principal, r=rate, t=time

result = p \* math.exp(rt)

return result

**# the variable ‘rt’ in the exp function is not declared, but ‘r’ and ‘t’ were. I added the ‘\*’ symbol in between the ‘r’ and the ‘t’ to multiply them:**

**result = p \* math.exp(r \* t)**

def compound\_interest(p, r, t):

#A = Pe^(rt)

#where: P = principal, r=rate, t=time

result = p \* math.exp(r \* t)

return result

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

def get\_car\_payment():

try:

loan = float(input("Enter the value of the loan: "))

down\_payment = float(input("Enter a down payment,use 0 if no money down: "))

rate = float(input("Enter the decimal value of interest rate: "))

dur = int(input("Enter the number of months for the term: "))

if (loan\*down\_payment\*rate\*dur) < 0:

print("Negative number detected! Program exiting")

return

except TypeError:

print("Invalid characters entered, restarting program")

get\_car\_payment()

def calculate(l,down,apr,duration):

apr = apr/12

principal = (l-down)

i = principal \* apr

apr = apr+1

combined\_rate = apr\*\*duration

inv = 1/combined\_rate

final = 1 - inv

payment = i/final

return payment

monthly = calculate(loan,down\_payment,rate,dur)

print("\*\*Your monthly payment will be %.2f" % monthly)

**# The ‘except’ has TypeError but the error I knew we could easily get is ValueError so I made the switch from TypeError to *ValueError* and the code worked just fine.**

def get\_car\_payment():

try:

loan = float(input("Enter the value of the loan: "))

down\_payment = float(input("Enter a down payment,use 0 if no money down: "))

rate = float(input("Enter the decimal value of interest rate: "))

dur = int(input("Enter the number of months for the term: "))

if (loan\*down\_payment\*rate\*dur) < 0:

print("Negative number detected! Program exiting")

return

except ValueError:

print("Invalid characters entered, restarting program")

get\_car\_payment()

def calculate(l,down,apr,duration):

apr = apr/12

principal = (l-down)

i = principal \* apr

apr = apr+1

combined\_rate = apr\*\*duration

inv = 1/combined\_rate

final = 1 - inv

payment = i/final

return payment

monthly = calculate(loan,down\_payment,rate,dur)

print("\*\*Your monthly payment will be %.2f" % monthly)