Week Mini Project 1 and 2 - Nayana Das

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#Project Option 1: "Console-Based Smart Calculator"
import numpy as np
while True:
    print("CONSOLE-BASED SMART CALCULATOR")
    print("1.addition")
    print("2.subtraction")
    print("3.multiplication")
    print("4.division")
    print("5.modulus")
    print("6.power")
    print("7.floor division")
    print("8.exit")
    choice=int(input("enter your choice:"))
    # NumPy Addition
    if choice == 1:
      a = np.array(list(map(int, input("enter first array: ").split())))
      b = np.array(list(map(int, input("enter second array: ").split())))
      print("addition of",a,"and",b,"is",a + b)
    elif choice==2:
      x = int(input("enter first number: "))
      y = int(input("enter second number: "))
      print("subtraction of",x,"and",y,"is",x-y)
    elif choice==3:
      x = int(input("enter first number: "))
      y = int(input("enter second number: "))
      print("multiplication of",x,"and",y,"is",x*y)
    elif choice==4:
      x = int(input("enter first number: "))
      y = int(input("enter second number: "))
      print("division of",x,"and",y,"is",x/y)
    elif choice==5:
      x = int(input("enter first number: "))
      y = int(input("enter second number: "))
      print("modulus of",x,"and",y,"is",x%y)
    elif choice==6:
      x = int(input("enter first number: "))
      y = int(input("enter second number: "))
      print("power of",x,"and",y,"is",x**y)
    elif choice==7:
      x = int(input("enter first number: "))
      y = int(input("enter second number: "))
      print("floor division of",x,"and",y,"is",x//y)
    elif choice==8:
      print("calculator exiting")
    else:
      print("invalid choice")
    ch=input("do you want to continue(y/n):")
    if ch=='n':
        break
print("thank you")
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#Project Option 2: Student Marks Analyzer
import numpy as np
n = int(input("enter number of students:"))

marks = np.array(list(map(int, input("Enter marks of students: ").split())))
total = marks.sum()
average = marks.mean()
highest = marks.max()
lowest = marks.min()

print("Result Analysis")
print("Total Marks:", total)
print("Average Marks:", average)
print("Highest Marks:", highest)
print("Lowest Marks:", lowest)

# Grade logic
if average > 85:
    grade = "A"
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    elif average >= 70:
        grade = "B"
    elif average >= 50:
        grade = "C"
    else:
        grade = "Fail"

    print("Grade:", grade)
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