1. **Checking Alphabets**

input\_char = input()

if input\_char.isalpha():

if input\_char in 'aeiouAEIOU':

print("Vowel")

else:

print("Consonant")

else:

print("Not an alphabet")

1. **Automorphic Number**

input\_num = int(input().strip())

square = input\_num \* input\_num

last\_digit = square % 10

if last\_digit == input\_num:

print("Automorphic Number")

else:

print("Not an Automorphic Number")

1. **Electricity Bill**

input\_units = int(input().strip())

if input\_units <= 200:

bill = input\_units \* 0.5

elif input\_units <= 400:

bill = input\_units \* 0.65 + 100

elif input\_units <= 600:

bill = input\_units \* 0.80 + 200

elif input\_units > 600:

bill = input\_units \* 1.25 + 425

print("Rs." + str(int(bill)))

1. **Online Shopping**

price\_f = int(input())

discount\_f = int(input())

shipping\_f = int(input())

price\_s = int(input())

discount\_s = int(input())

shipping\_s = int(input())

price\_a = int(input())

discount\_a = int(input())

shipping\_a = int(input())

price\_f = price\_f - (price\_f \* discount\_f / 100) + shipping\_f

price\_s = price\_s - (price\_s \* discount\_s / 100) + shipping\_s

price\_a = price\_a - (price\_a \* discount\_a / 100) + shipping\_a

print("In Flipkart: Rs.%d"%(int(price\_f)))

print("In Snapdeal: Rs.%d"%(int(price\_s)))

print("In Amazon: Rs.%d"%(int(price\_a)))

if price\_f <= price\_s and price\_f <= price\_a:

print("Choose Flipkart")

elif price\_s <= price\_f and price\_s <= price\_a:

print("Choose Snapdeal")

else:

print("Choose Amazon")

1. **Hotel Tariff Calculator**

month = int(input())

rent = int(input())

days = int(input())

amount = 0

if month in [4, 5, 6, 11, 12]:

amount = (rent \* (100 + 20) // 100) \* days

print(amount)

elif month in [1, 2, 3, 7, 8, 9, 10]:

amount = rent \* days

print(amount)

else:

print("Invalid Input")

1. **Gift For Birthday**

year = int(input())

if ((year % 4 == 0 and year % 100 != 0) or year % 400 == 0):

print(str(year) + " is a leap year")

else:

print(str(year) + " is not a leap year")

1. **Trendy Number**

num = int(input())

mid = 0

if num >= 100 and num <= 999:

mid = num // 10

mid = mid % 10

if mid % 3 == 0:

print("Trendy Number")

else:

print("Not a Trendy Number")

else:

print("Invalid Number")

1. **Time Sheet**

sun = int(input())

mon = int(input())

tue = int(input())

wed = int(input())

thu = int(input())

fri = int(input())

sat = int(input())

rate1 = sun \* 150

rate7 = sat \* 125

rate2 = rate3 = rate4 = rate5 = rate6 = bonus = bonus\_rate = 0

if mon <= 8:

rate2 = mon \* 100

else:

bonus = mon - 8

bonus\_rate = bonus \* 115

rate2 = bonus\_rate + 800

if tue <= 8:

rate3 = tue \* 100

else:

bonus = tue - 8

bonus\_rate = bonus \* 115

rate3 = bonus\_rate + 800

if wed <= 8:

rate4 = wed \* 100

else:

bonus = wed - 8

bonus\_rate = bonus \* 115

rate4 = bonus\_rate + 800

if thu <= 8:

rate5 = thu \* 100

else:

bonus = thu - 8

bonus\_rate = bonus \* 115

rate5 = bonus\_rate + 800

if fri <= 8:

rate6 = fri \* 100

else:

bonus = fri - 8

bonus\_rate = bonus \* 115

rate6 = bonus\_rate + 800

total\_rate = rate1 + rate2 + rate3 + rate4 + rate5 + rate6 + rate7

print(total\_rate)

1. **Number of Days**

year = int(input())

month = int(input())

max\_yr = 9999

min\_yr = 1900

days = 0

if year > max\_yr or year < min\_yr:

days = 0

if month < 1 or month > 12:

days = 0

if month == 2:

if (year % 4 == 0 and year % 100 != 0) or year % 400 == 0:

days = 29

else:

days = 28

elif month == 4 or month == 6 or month == 9 or month == 11:

days = 30

else:

days = 31

print(str(days) + " Days")

1. **Scholarship**

age = int(input())

year = int(input())

income = int(input())

arrear = int(input())

score = float(input())

attendance = float(input())

if (age >= 18 and age < 21) and (year >= 2021) and (score >= 60.0) and (attendance >= 80.0):

if (arrear <= 2) and (income <= 200000):

print("Eligible")

elif (arrear > 2) and (income <= 200000):

if (score >= 80.0) and (attendance >= 90.0):

print("Partially Eligible")

else:

print("Not Eligible")

elif (arrear > 2) and (200000 < income < 250000):

if (score >= 80.0) and (attendance >= 90.0):

print("Partially Eligible")

else:

print("Not Eligible")

elif (arrear <= 2) and (200000 < income < 250000):

print("Partially Eligible")

else:

print("Not Eligible")

else:

print("Not Eligible")

1. **Mango Tree**

r = int(input())

c = int(input())

t = int(input())

if t <= c or t % c == 1 or t % c == 0:

print("Yes")

else:

print("No")

1. **Cricket**

total\_balls = int(input())

total\_runs = int(input())

runs\_scored = int(input())

balls\_bowled = int(input())

overs = total\_balls // 6

overs\_done = balls\_bowled // 6 + (balls\_bowled % 6) \* 0.1

crr = runs\_scored / overs\_done

trr = total\_runs / overs

print(overs)

print("%.1f" % overs\_done)

print("%.1f" % crr)

print("%.1f" % trr)

if crr >= trr:

print("Eligible to Win")

else:

print("Not Eligible to Win")

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