print ("Cash or Credit")

print()

a =input("Card: ")

a = a [::-1]

print(list(a))

c = (a [1::2])

print (list(c))

d = (a [1::2])

e = (a [0::2])

print (int(c)+ int(d))

f = int(c) + int(d)

total = 0

i = 0

print (list(e))

g = len(a)

print("Length: ",g )

num = int(f)

result = 0

hold = num

while num>0:

rem = num % 10

result = result + rem

num = int(num/10)

print("The sum of", hold, "is: ", result)

i = result

num1 = int(e)

result1 = 0

hold1 = num1

while num1>0:

rem = num1 % 10

result1 = result1 + rem

num1 = int(num1/10)

print("The sum of", hold1, "is: ", result1)

j = result1

j1 = result + result1

print("The magic number is:",j1)

print()

num2 = j1

lastdigit=num2 % 10

print("last digit: {}".format(lastdigit))

if lastdigit == 0:

print("You have an authentic credit card.")

res = [ a[0] ]

if res == [4] and g in [13,16]:

print("VISA")

if res == [3] and g in [15]:

print("AMERICAN EXPRESS")

if res == [5] and g in [16]:

print("MASTERCARD")

if lastdigit != 0:

print ("WARNING! You may have a bogus credit card.")