class starting:

def \_init\_(self,num):

self.num=num

self.obj5=self.master()

def check\_visa(self,num):

if num[0] == '4':

return True

else:

return False

class master:

def \_init\_(self):

self.num=num

def check\_Master(self,num):

if num[0] == '5':

return True

else:

return False

def check\_Discover(self,num):

if num[0] == '6':

return True

else:

return False

def check\_American(self,num):

if num[0] == '3':

return True

else:

return False

class length:

@classmethod

def val\_len(cls,num):

if "-" in num:

s = len(str((num)))

if(s==19):

return True

else:

return False

else:

s = len(str((num)))

if(s != 16):

return False

else:

return True

class digit:

@staticmethod

def val\_isdigit(num):

for i in num:

if not (((i >= '0') and (i <= '9')) or (i == '-')):

return False

break

else:

return True

break

class group:

def \_init\_(self,num):

self.num=num

def val\_group(self,num):

if "-" in num:

list1=num.split("-")

if(len(list1)==4):

if(len(list1[0])) == 4:

return True

if(len(list1[1])) == 4:

return True

if(len(list1[2])) == 4:

return True

if(len(list1[3])) == 4:

return True

else:

return False

#Enter credit card number

card\_number = input("enter card number: ")

obj1=starting()

obj2=length()

obj3=digit()

obj4=group()

obj5=obj1.master()

#Enter user choice

choice=int(input("Enter user choice:"))

if choice == 1:

print("Checking User card is visa or not")

result=[obj1.check\_visa(card\_number),obj2.val\_len(card\_number),

obj3.val\_isdigit(card\_number),

obj4.val\_group(card\_number)]

if False in result:

print("invalid")

else:

print("valid")

elif choice == 2:

print("Checking User card is Master or not")

result=[obj5.check\_Master(card\_number),

obj2.val\_len(card\_number),

obj3.val\_isdigit(card\_number),

obj4.val\_group(card\_number)]

if False in result:

print("invalid")

else:

print("valid")

elif choice == 3:

print("Checeking User card is Discover or not")

result=[obj1.check\_Discover(card\_number),

obj2.val\_len(card\_number),

obj3.val\_isdigit(card\_number),

obj4.val\_group(card\_number)]

if False in result:

print("invalid")

else:

print("valid")

elif choice == 4:

print("Checking User card is American express card or not")

result=[obj1.check\_American(card\_number),

obj2.val\_len(card\_number),

obj3.val\_isdigit(card\_number),

obj4.val\_group(card\_number)]

if False in result:

print("invalid card")

else:

print("valid card")

else:

print("none")