# 计算机程序设计实验报告7

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实验内容：第五章程序练习题

一

def reverse(s):

if s == "":

return s

else:

return s[-1] + reverse(s[0:-1])

str = input("please enter a string:")

print(reverse(str))

二

def fib(n):

if n < 0:

print("Error")

elif n == 0:

return 0

elif n == 1:

return 1

else:

return fib(n-1) + fib(n-2)

n = int(input("请输入一个整数:"))

for i in range(1, n+1):

print(fib(i), end=", ")

三

def hanoi(a,b,c,p):

if len(p) == 1:

print("圆盘{}:{}-->{}".format((p[0]), a, c))

else:

hanoi(a,c,b,p[0:-1])

hanoi(a,b,c,[p[-1]])

hanoi(b,c,a,p[0:-1])

p = range(1,5)

hanoi('a','b','c',p)

四

import turtle, datetime,random

def drawGap(): #绘制数码管间隔

turtle.penup()

turtle.fd(5)

def drawLine(draw): #绘制单段数码管

turtle.colormode(255)

r = random.randint(0, 255)

g = random.randint(0, 255)

b = random.randint(0, 255)

turtle.pencolor((r, g, b))

drawGap()

turtle.pendown() if draw else turtle.penup()

turtle.fd(40)

drawGap()

turtle.right(90)

def drawDigit(digit): #根据数字绘制七段数码管

turtle.pencolor

drawLine(True) if digit in [2,3,4,5,6,8,9] else drawLine(False)

drawLine(True) if digit in [0,1,3,4,5,6,7,8,9] else drawLine(False)

drawLine(True) if digit in [0,2,3,5,6,8,9] else drawLine(False)

drawLine(True) if digit in [0,2,6,8] else drawLine(False)

turtle.left(90)

drawLine(True) if digit in [0,4,5,6,8,9] else drawLine(False)

drawLine(True) if digit in [0,2,3,5,6,7,8,9] else drawLine(False)

drawLine(True) if digit in [0,1,2,3,4,7,8,9] else drawLine(False)

turtle.left(180)

turtle.penup()

turtle.fd(20)

def drawDate(date):

turtle.colormode(255)

r = random.randint(0, 255)

g = random.randint(0, 255)

b = random.randint(0, 255)

turtle.pencolor((r, g, b))

for i in date:

if i == '-':

turtle.write('年',font=("Arial", 18, "normal"))

turtle.fd(40)

elif i == '=':

turtle.write('月',font=("Arial", 18, "normal"))

turtle.fd(40)

elif i == '+':

turtle.write('日',font=("Arial", 18, "normal"))

else:

drawDigit(eval(i))

def main():

turtle.setup(800, 350, 200, 200)

turtle.penup()

turtle.fd(-300)

turtle.pensize(5)

drawDate(datetime.datetime.now().strftime('%Y-%m=%d+'))

turtle.hideturtle()

turtle.done()

main()

## 部分实验截图：

