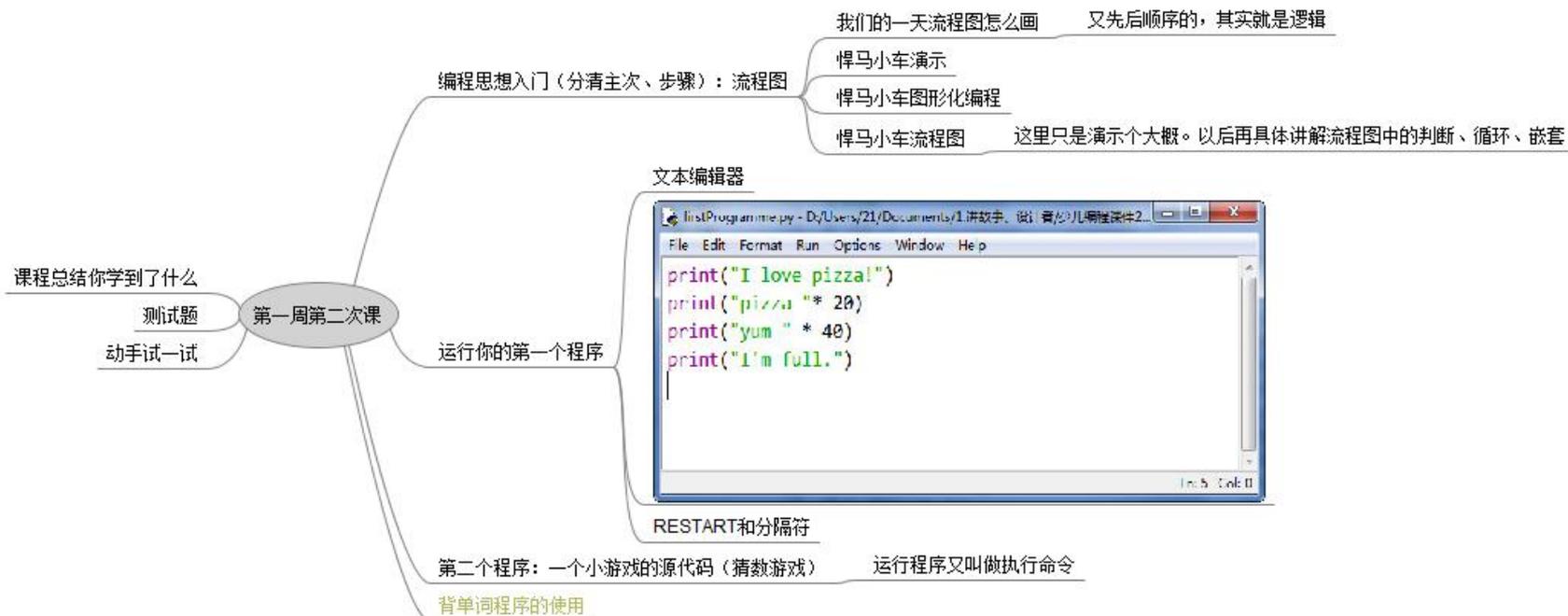


少儿编程

21工作室出品

本节课思维导图



你学到了什么

哇！内容真不少。这一章中，你做了下面这些事情：

- ❑ 安装了 Python；
- ❑ 学习了如何启动 IDLE；
- ❑ 了解了交互模式；
- ❑ 交给 Python 一些指令来执行；
- ❑ 看到了 Python 知道如何完成算术运算（包括非常大的数）；
- ❑ 启动 IDLE 文本编辑器键入你的第一个程序；
- ❑ 运行你的第一个 Python 程序；
- ❑ 了解错误消息；
- ❑ 运行你的第二个 Python 程序：猜数游戏。

测试题

1. 如何启动 IDLE ?
2. `print` 的作用是什么?
3. Python 中表示乘法的符号是什么?
4. 启动运行一个程序时 IDLE 会显示什么?
5. 运行程序又叫做什么?

动手试一试

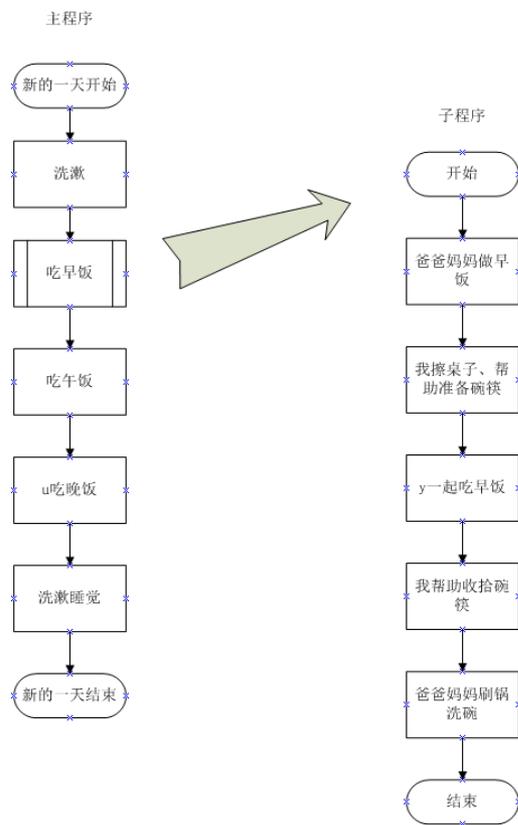
1. 在交互模式中，使用 Python 计算一周有多少分钟。
2. 编写一个简短的小程序，打印 3 行：你的名字、出生日期，还有你最喜欢的颜色。打印结果应该类似这样：

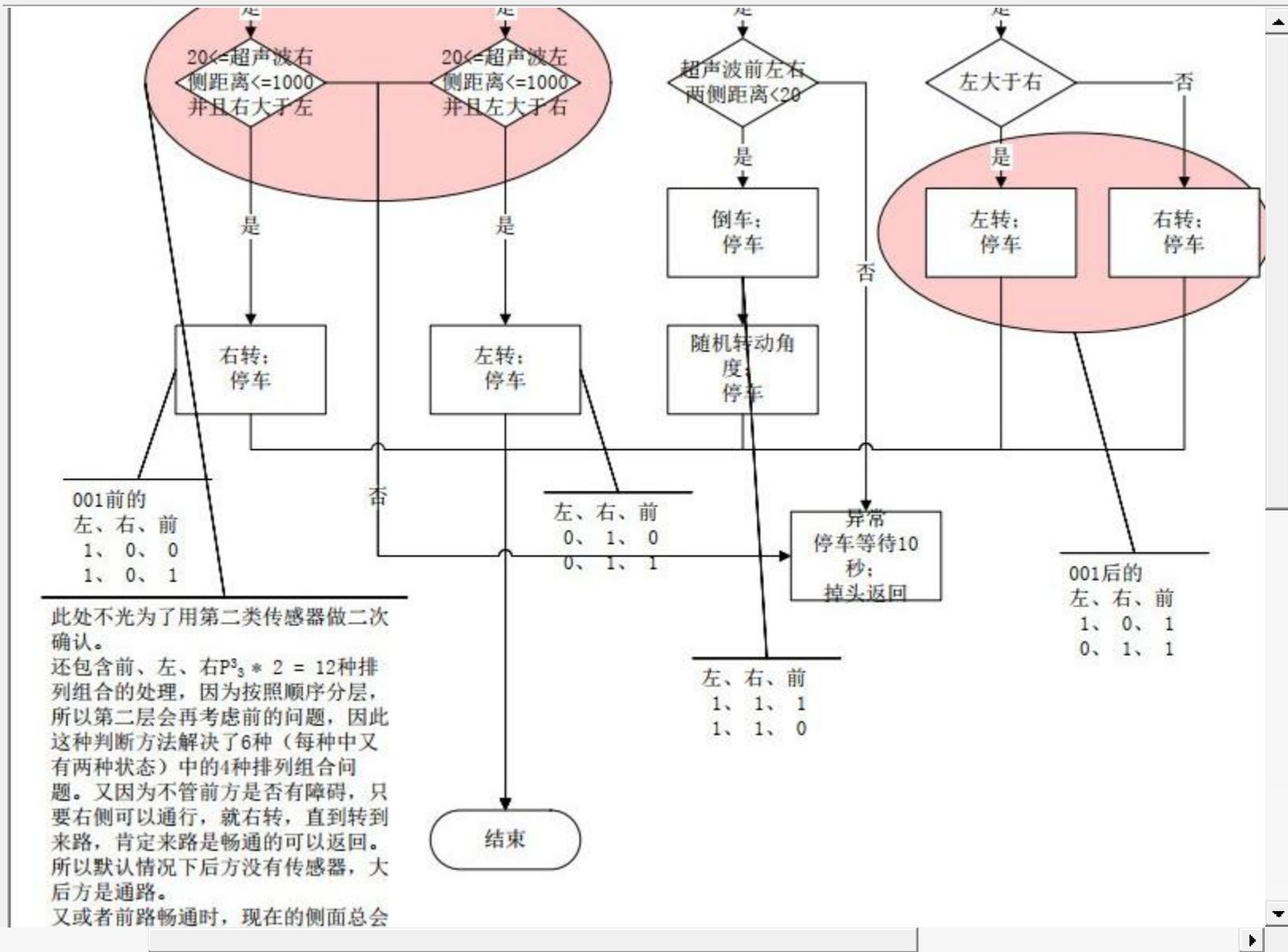
```
My name is Warren Sande.  
I was born January 1, 1970.  
My favorite color is blue.
```

保存这个程序，然后运行。如果程序没有像你期望的那样运行，或者给出错误消息，试着改正错误，让它能够正确运行。

平常的一天

流程图演示





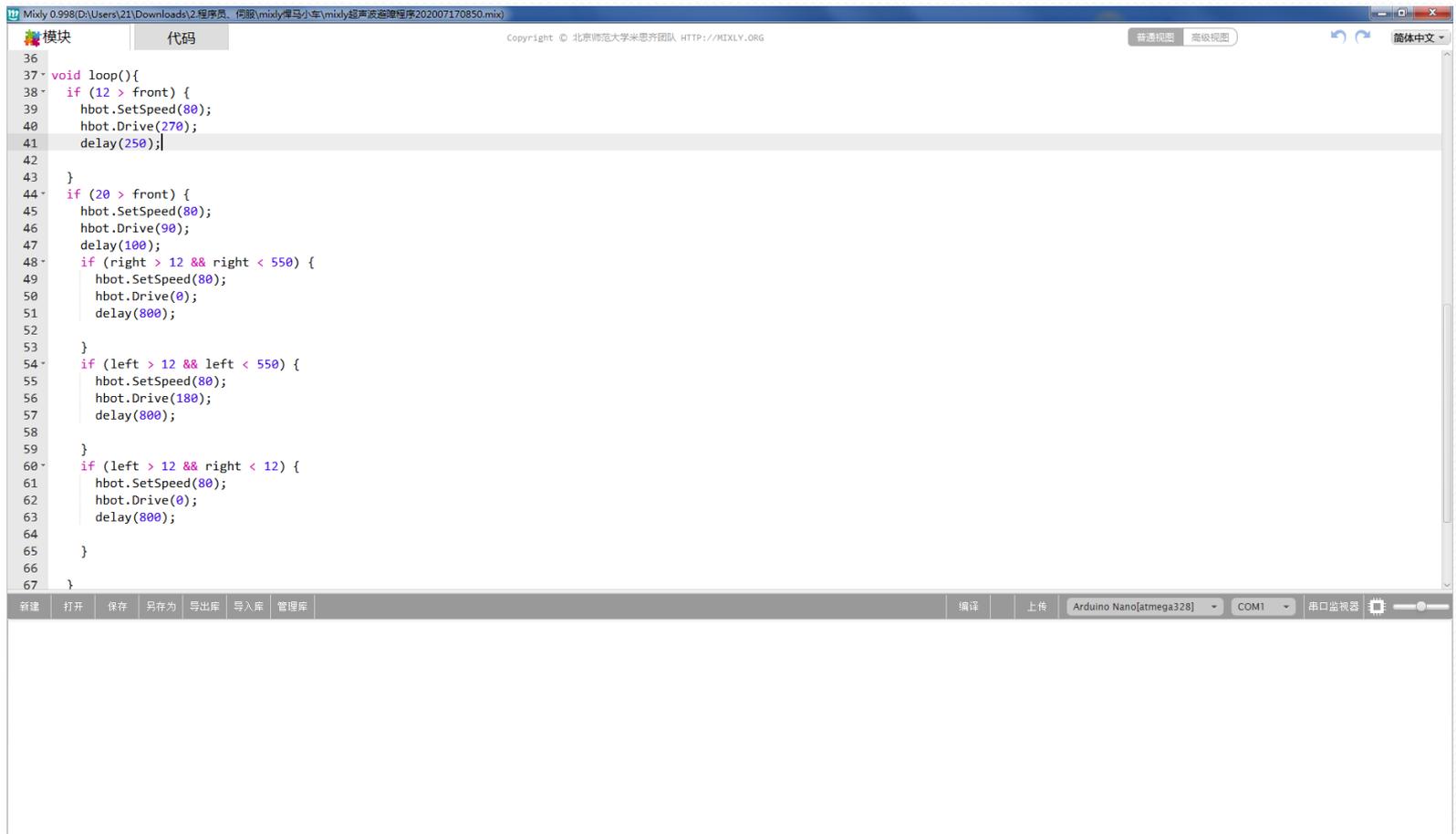
悍马小车的程序设计（拖拽式）

The screenshot displays the Mixly programming interface with a code editor containing the following logic blocks:

- Block 1:** An "If" block with the condition "front" (value 12) greater than "front". The execution block is "悍马小车 后退 速度" (Hummerbot move back speed) with a value of 80, followed by a "延时 毫秒" (Delay in milliseconds) block set to 250.
- Block 2:** An "If" block with the condition "front" (value 20) greater than "front". The execution block is "悍马小车 前进 速度" (Hummerbot move forward speed) with a value of 80, followed by a "延时 毫秒" (Delay in milliseconds) block set to 100.
- Block 3:** An "If" block with the condition "right" (value 12) greater than "right" and "right" (value 550) less than "right". The execution block is "悍马小车 右转 速度" (Hummerbot turn right speed) with a value of 80, followed by a "延时 毫秒" (Delay in milliseconds) block set to 800.
- Block 4:** An "If" block with the condition "left" (value 12) greater than "left" and "left" (value 550) less than "left". The execution block is "悍马小车 左转 速度" (Hummerbot turn left speed).

The interface includes a left sidebar with module categories (e.g., 输入/输出, 控制, 数学), a top menu bar with options like 新建, 打开, 保存, and a bottom status bar showing the target hardware as "Arduino Nano[atmega328]" and "COM1".

自动产生代码



The screenshot shows the Mixly IDE interface with a code editor containing the following C++ code:

```
36  
37- void loop(){  
38-   if (12 > front) {  
39     hbot.SetSpeed(80);  
40     hbot.Drive(270);  
41     delay(250);  
42   }  
43 }  
44- if (20 > front) {  
45   hbot.SetSpeed(80);  
46   hbot.Drive(90);  
47   delay(100);  
48-   if (right > 12 && right < 550) {  
49     hbot.SetSpeed(80);  
50     hbot.Drive(0);  
51     delay(800);  
52   }  
53 }  
54- if (left > 12 && left < 550) {  
55   hbot.SetSpeed(80);  
56   hbot.Drive(180);  
57   delay(800);  
58 }  
59 }  
60- if (left > 12 && right < 12) {  
61   hbot.SetSpeed(80);  
62   hbot.Drive(0);  
63   delay(800);  
64 }  
65 }  
66 }  
67 }
```

The IDE interface includes a top menu bar with '模块' (Modules) and '代码' (Code) tabs, a title bar with the file path 'Mixly 0.9998(D:\Users\221\Downloads\2.程序员_何顺(mixly)弹马小车\mixly超声波测距程序202007170850.mix)', and a toolbar with '普通视图' (Normal View) and '高级视图' (Advanced View) buttons. The bottom status bar shows '编译' (Compile), '上传' (Upload), 'Arduino Nano[atmega328]', 'COM1', and '串口监视器' (Serial Monitor).

猜数游戏源代码

```
NumberGuessChinies.py - D:\tmp\yiyi\编程\NumberGuessChinies.py (3.7.4)
File Edit Format Run Options Window Help
import random

secret = random.randint(1, 100)
guess = 0
tries = 0

print ("你好！我是一个猜数机器人，我有一个秘密！")
print ("这个数字在1到99之间。我会给你六次机会。")

while guess != secret and tries < 6:
    guess = int(input("你猜的数是多少？"))
    if guess < secret:
        print ("太低了，像个小狗！")
    elif guess > secret:
        print ("太高了，像个长颈鹿！")
    tries = tries + 1

if guess == secret:
    print ("呕天呐，你找到它了，你知道了我的秘密，你做到了！")
else:
    print ("没机会了，祝你下次好运！")
    print ("这个秘密数字是", secret)

Ln: 1 Col: 0
```