

现代操作系统应用开发实验报告

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实验名称：homework1

一．参考资料

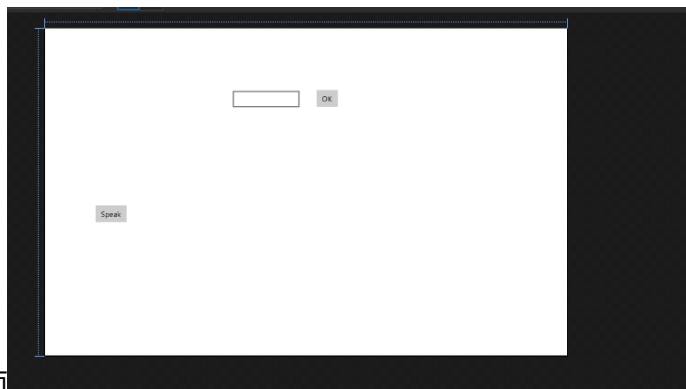
资料书：果壳中的 C#:C#5.0 权威指南

<http://www.cnblogs.com/huangfr/archive/2012/03/27/2420464.html>

<http://blog.csdn.net/u011850815/article/details/24850433>

Demo 中的 animal 代码

二．实验步骤



1. 首先设计了页面
2. 研究了 Demo 中的 animal 代码，根据其代码实现了基本的发言动作。

```

class cat : test
{
    TextBlock word;
    private int a;

    public cat(TextBlock w)
    {
        this.word = w;
    }
    public string saying(object sender, myEventArgs e)
    {
        this.word.Text += "Cat:I am a cat.\n";
        return "";
    }
    public int A
    {
        get { return a; }
        set { this.a = value; }
    }
}

```

(dog 和 pig

类似)

3. 百度查询了 C#关于随机数的生成,使用 random 类完成了点击 speak 三种动物的随机发言。

```

private void button_Click(object sender, RoutedEventArgs e)
{
    word_out.Text = "";
    Random ran = new Random();
    int key = ran.Next(1,4);
    if (key == 1)
    {
        c = new cat(word_out);
        Say += new AnimalSaying(c.saying);
    }
    else if (key == 2)
    {
        d = new dog(word_out);
        Say += new AnimalSaying(d.saying);
    }
    else if (key == 3)
    {
        p = new pig(word_out);
        Say += new AnimalSaying(p.saying);
    }

    Say(this, new myEventArgs(times++)); //事件中传递参数times
}

```

4. 采用 if 语句实现了输入动物的名字,输出相应动物的发言动作,完善 ok 按钮的功能

```

private void ok_Click(object sender, RoutedEventArgs e)
{
    if (word_in.Text == "dog")
    {
        word_out.Text = "";
        d = new dog(word_out);
        Say += new AnimalSaying(d.saying);
        Say(this, new myEventArgs(times++)); //事件中传递参数times
    }
    else if (word_in.Text == "cat")
    {
        word_out.Text = "";
        c = new cat(word_out);
        Say += new AnimalSaying(c.saying);
        Say(this, new myEventArgs(times++)); //事件中传递参数times
    }
    else if (word_in.Text == "pig")
    {
        word_out.Text = "";
        p = new pig(word_out);
        Say += new AnimalSaying(p.saying);
        Say(this, new myEventArgs(times++)); //事件中传递参数times
    }
    word_in.Text = "";
}

```

5. 给输出框加入了滚动条。

三．实验结果截图



OK

Cat:I am a cat.

Speak

OK

Cat:I am a cat.
Cat:I am a cat.
Cat:I am a cat.
Dog:I am a dog.
Dog:I am a dog.
Pig:I am a pig.
Cat:I am a cat.
Pig:I am a pig.
Cat:I am a cat.
Dog:I am a dog.

Speak

以上为点击 **speak** 产生的随机发言，接下来将测试 **ok**

cat

OK

Speak

Cat:I am a cat.
Cat:I am a cat.
Cat:I am a cat.
Dog:I am a dog.
Dog:I am a dog.
Pig:I am a pig.
Cat:I am a cat.
Pig:I am a pig.
Cat:I am a cat.
Dog:I am a dog.



OK

Speak

Cat:I am a cat.
Cat:I am a cat.
Cat:I am a cat.
Dog:I am a dog.
Dog:I am a dog.
Pig:I am a pig.
Cat:I am a cat.
Pig:I am a pig.
Cat:I am a cat.
Dog:I am a dog.
Cat:I am a cat.



Speak

pig

OK

Cat:I am a cat.
Cat:I am a cat.
Cat:I am a cat.
Dog:I am a dog.
Dog:I am a dog.
Pig:I am a pig.
Cat:I am a cat.
Pig:I am a pig.
Cat:I am a cat.
Dog:I am a dog.
Cat:I am a cat.

Speak

OK

Cat:I am a cat.
Cat:I am a cat.
Cat:I am a cat.
Dog:I am a dog.
Dog:I am a dog.
Pig:I am a pig.
Cat:I am a cat.
Pig:I am a pig.
Cat:I am a cat.
Dog:I am a dog.
Cat:I am a cat.
Pig:I am a pig.

Speak

dog|

OK

Cat:I am a cat.
Cat:I am a cat.
Cat:I am a cat.
Dog:I am a dog.
Dog:I am a dog.
Pig:I am a pig.
Cat:I am a cat.
Pig:I am a pig.
Cat:I am a cat.
Dog:I am a dog.
Cat:I am a cat.
Pig:I am a pig.



Speak

OK

Cat:I am a cat.
Cat:I am a cat.
Cat:I am a cat.
Dog:I am a dog.
Dog:I am a dog.
Pig:I am a pig.
Cat:I am a cat.
Pig:I am a pig.
Cat:I am a cat.
Dog:I am a dog.
Cat:I am a cat.
Pig:I am a pig.
Dog:I am a dog.



输入无关语句

Speak

哈哈哈哈|

OK

Cat:I am a cat.
Cat:I am a cat.
Cat:I am a cat.
Dog:I am a dog.
Dog:I am a dog.
Pig:I am a pig.
Cat:I am a cat.
Pig:I am a pig.
Cat:I am a cat.
Dog:I am a dog.
Cat:I am a cat.
Pig:I am a pig.
Dog:I am a dog.

无反应

Speak

OK

Cat:I am a cat.
Cat:I am a cat.
Cat:I am a cat.
Dog:I am a dog.
Dog:I am a dog.
Pig:I am a pig.
Cat:I am a cat.
Pig:I am a pig.
Cat:I am a cat.
Dog:I am a dog.
Cat:I am a cat.
Pig:I am a pig.
Dog:I am a dog.

什么都不输入

Speak

OK

Cat:I am a cat.
Cat:I am a cat.
Cat:I am a cat.
Dog:I am a dog.
Dog:I am a dog.
Pig:I am a pig.
Cat:I am a cat.
Pig:I am a pig.
Cat:I am a cat.
Dog:I am a dog.
Cat:I am a cat.
Pig:I am a pig.
Dog:I am a dog.

无反应

Speak

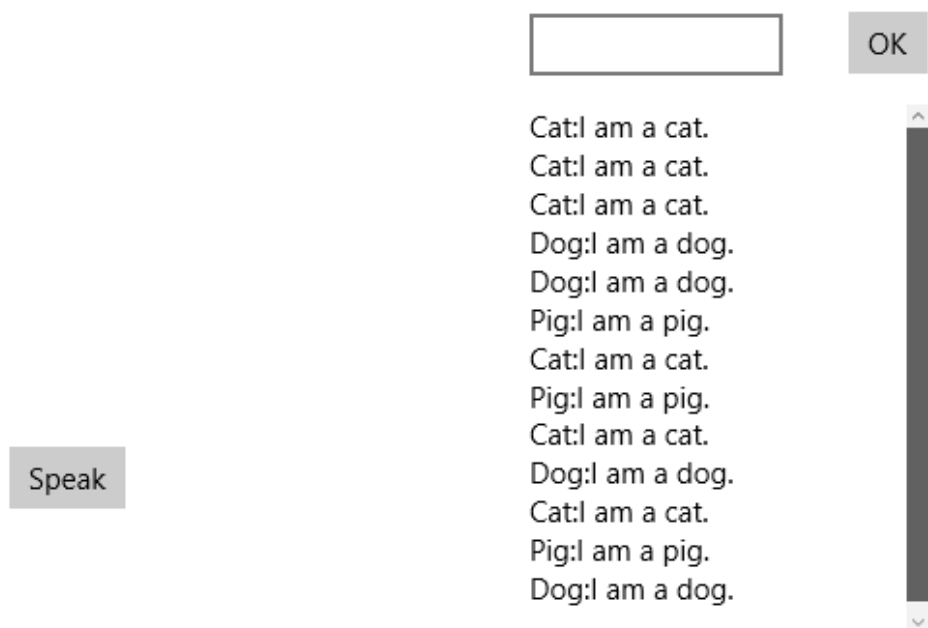
OK

Cat:I am a cat.
Cat:I am a cat.
Cat:I am a cat.
Dog:I am a dog.
Dog:I am a dog.
Pig:I am a pig.
Cat:I am a cat.
Pig:I am a pig.
Cat:I am a cat.
Dog:I am a dog.
Cat:I am a cat.
Pig:I am a pig.
Dog:I am a dog.

^

▼

旁边还有滚动条可以查看



四 . 实验过程遇到的问题

1.在一开始的输入框中输入无关语句点 OK 发生错误 ,最后发现是语句 Say 的调用出现了问题 ,于是在每个 if 中加入这一语句解决了这问题。

```
private void ok_Click(object sender, RoutedEventArgs e)
{
    if (word_in.Text == "dog")
    {
        word_out.Text = "";
        d = new dog(word_out);
        Say += new AnimalSaying(d.saying);
        Say(this, new myEventArgs(times++)); //事件中传递参数times
    }
    else if (word_in.Text == "cat")
    {
        word_out.Text = "";
        c = new cat(word_out);
        Say += new AnimalSaying(c.saying);
        Say(this, new myEventArgs(times++)); //事件中传递参数times
    }
    else if (word_in.Text == "pig")
    {
        word_out.Text = "";
        p = new pig(word_out);
        Say += new AnimalSaying(p.saying);
        Say(this, new myEventArgs(times++)); //事件中传递参数times
    }
    word_in.Text = "";
}
```

2.一开始尝试把 `textblock` 加入滚动条时，没有任何显示，最后发现滚动条控件是少了语句

```
VerticalScrollBarVisibility="Visible">
```

，最后成功解决了问题。

五 . 思考与总结

C#是学习的新语言，非常方便我们进行应用的开发。

在编写代码过程中遇到问题要多看书多查找，往往是细节问题导致最后的结果不如人意。