Abstract Classes in Java

The main class must be described as abstract:

```
public abstract class Parent {
   // declare fields
   protected int myNum;
   Parent()
   {
         myNum = 1;
   }
   // declare non-abstract methods - these have no body code
   abstract void theMethod();
}
```

The classes that inherit the abstract class must implement the abstract methods

```
public class Child extends Parent{
      @Override
      void theMethod() {
            myNum = myNum * 10;

      }
      public int getNum()
      {
            return myNum;
      }
}
```

Here is a 3rd (front end) class demonstrating the Child class works.

```
import java.applet.*;
import java.awt.*;
import java.awt.event.*;
public class FrontEnd extends Applet implements ActionListener
{
      private static final long serialVersionUID = 1L;
      private Button push;
      private TextArea output;
      private Child myChild;
      public void init()
      {
            push = new Button("Push Me");
            add(push);
            push.addActionListener(this);
            output = new TextArea();
            add(output);
            myChild = new Child();
      }
      public void actionPerformed(ActionEvent event)
      {
            if(event.getSource()==push)
            {
                  myChild.theMethod();
                  output.setText( String.valueOf( myChild.getNum()));

            }
      }
}
```