

```
public class SecretNumber
{
    // Le nombre à deviner
    private int secret = 0;

    // Le nombre d'essais
    private int counter;

    public SecretNumber(int pN)
    {
        secret = (int) (Math.random() * pN) + 1;
        counter = 0;
    }

    public int getCounter()
    {
        return counter;
    }

    public int compareTo(int pGuessedNumber)
    {
        counter++;
        if (pGuessedNumber == secret)
            return 0;
        else if (pGuessedNumber > secret)
            return 1;
        else
            return -1;
    }

    public String guess(int pGuess)
    {
        // pas utilisée dans cet exercice B06...

        String res = "";
        counter++;
        if (pGuess == secret)
        {
            String ending = "th";
            int unit = counter % 10;
            int cent = counter % 100;
            if ((cent != 11) && (cent != 12) && (cent != 13))
            {
                if (unit == 1)
                {
                    ending = "st";
                }
                else if (unit == 2)
                {
                    ending = "nd";
                }
                else if (unit == 3)
                {
                    ending = "rd";
                }
            }
            res = "Well done! You found the secret number at the " + getCounter() + ending + " guess";
        }
        else if (pGuess < secret)
        {
            res = "Your number is too small";
        }
        else
        {
            res = "Your number is too big";
        }
        return res;
    }
}
```

```

public class MainFrame extends javax.swing.JFrame
{
    private SecretNumber secret = null;

    public MainFrame()
    {
        initComponents();
        nbrTextField.setEnabled(false);
        doitButton.setEnabled(false);
    }

    public void updateView()
    {
        nbrTriesLabel.setText(String.valueOf(secret.getCounter()));
    }
}
// Skipped: ... initComponents { ... }
private void nbrTextFieldActionPerformed(java.awt.event.ActionEvent evt) {GEN-FIRST:event_nbrTextFieldActionPerformed
    doCheck();
} //GEN-LAST:event_nbrTextFieldActionPerformed

private void doitButtonActionPerformed(java.awt.event.ActionEvent evt) {GEN-FIRST:event_doitButtonActionPerformed
    doCheck();
} //GEN-LAST:event_doitButtonActionPerformed

private void newButtonActionPerformed(java.awt.event.ActionEvent evt) {GEN-FIRST:event_newButtonActionPerformed
    secret = new SecretNumber(100);
    msgLabel.setText("new game...");
    nbrTextField.setText("");
    nbrTextField.setEnabled(true);
    doitButton.setEnabled(true);
    updateView();
} //GEN-LAST:event_newButtonActionPerformed

public void doCheck()
{
    String val = nbrTextField.getText();
    if (val.equals(""))
        return; // rien tapé... ignorer!

    // lire le nombre tapé par l'utilisateur
    int guess = Integer.valueOf(val);

    // jouer
    int returnCode = secret.compareTo(guess);

    // afficher un text en fonction du code de retour
    if (returnCode == 0)
    {
        // trouvé!
        msgLabel.setText("Well done!");
        nbrTextField.setEnabled(false);
        doitButton.setEnabled(false);
    }
    else if (returnCode > 0)
        msgLabel.setText("Number too big ...");
    else
        msgLabel.setText("Number too small ...");

    // afficher le nombre de tentatives
    nbrTriesLabel.setText("Number of tries: " + secret.getCounter());

    updateView();
}
}
// Skipped: ... Look & Feel
// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JButton doitButton;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JLabel jLabel4;
private javax.swing.JLabel msgLabel;
private javax.swing.JTextField nbrTextField;
private javax.swing.JLabel nbrTriesLabel;
private javax.swing.JButton newButton;
// End of variables declaration//GEN-END:variables
}

```