

```
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
        String val = limitTextField.getText();
        if (val.equals(""))
            return;    // rien tapé... ignorer!

        int limit = Integer.valueOf(val);
        if (limit <= 1)
        {
            limitMsgLabel.setText("Limit must be > 1 !!");
        }
        else
        {
            limitMsgLabel.setText("Chosen number is between 1 and "+limit);
            secret = new SecretNumber(limit);
            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 de 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 jLabel5;
    private javax.swing.JLabel limitMsgLabel;
    private javax.swing.JTextField limitTextField;
    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
}

```