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|  | **DEPARTMENT OF COMPUTER ENGINEERING** |

**Mini Project Report**

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| --- | --- |
| Semester | S.E. Semester III – Computer Engineering |
| Subject | Skill Based Lab Course: OOP with Java (CSL304) |
| Subject Professor In-charge | Prof. Swapnil S. Sonawane |
| Assisting Teachers | Prof. Swapnil S. Sonawane |

|  |  |
| --- | --- |
| Roll Number | Name of Students |
| 21102A0014 | Deep Salunkhe |
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| 21102A0005 | Pranav Redij |
|  |  |

**Name of the Project:**

**Tic tac toe game**

**Project Description:**

**Created a TicTacToe game in Java NetBeans using Methods, call to methods, if statement, JFrame, jButtons, ¡Panels, jLabels and setting panels properties.**

**Project Code:**

*\*/*

**public** **class** Tic\_tac\_toe extends javax.swing.JFrame {

*/\*\**

*\* Creates new form Tic\_tac\_toe*

*We created this program using net NetBeans*

*\*/*

**public** Tic\_tac\_toe() {

        initComponents();

    }

*/\*\**

*\* This method is called from within the constructor to initialize the form.*

*\* WARNING: Do NOT modify this code. The content of this method is always*

*\* regenerated by the Form Editor.*

*\*/*

    @SuppressWarnings("unchecked")

*// <editor-fold defaultstate="collapsed" desc="Generated Code">*

**private** **void** initComponents() {

        jPanel1 = **new** javax.swing.JPanel();

        jLabel1 = **new** javax.swing.JLabel();

        BTN2 = **new** javax.swing.JButton();

        BTN1 = **new** javax.swing.JButton();

        BTN3 = **new** javax.swing.JButton();

        reset = **new** javax.swing.JButton();

        BTN6 = **new** javax.swing.JButton();

        BTN5 = **new** javax.swing.JButton();

        BTN4 = **new** javax.swing.JButton();

        BTN9 = **new** javax.swing.JButton();

        BTN8 = **new** javax.swing.JButton();

        BTN7 = **new** javax.swing.JButton();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT\_ON\_CLOSE);

        setBackground(**new** java.awt.Color(0, 0, 0));

        jPanel1.setBackground(**new** java.awt.Color(0, 0, 0));

        jLabel1.setBackground(**new** java.awt.Color(0, 0, 0));

        jLabel1.setFont(**new** java.awt.Font("Eras Bold ITC", 1, 48)); *// NOI18N*

        jLabel1.setForeground(**new** java.awt.Color(255, 255, 255));

        jLabel1.setText("Tic Tac Toe");

        javax.swing.GroupLayout jPanel1Layout = **new** javax.swing.GroupLayout(jPanel1);

        jPanel1.setLayout(jPanel1Layout);

        jPanel1Layout.setHorizontalGroup(

            jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

            .addGroup(jPanel1Layout.createSequentialGroup()

                .addGap(135, 135, 135)

                .addComponent(jLabel1)

                .addContainerGap(181, Short.MAX\_VALUE))

        );

        jPanel1Layout.setVerticalGroup(

            jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()

                .addContainerGap(45, Short.MAX\_VALUE)

                .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED\_SIZE, 103, javax.swing.GroupLayout.PREFERRED\_SIZE)

                .addGap(14, 14, 14))

        );

        BTN2.setFont(**new** java.awt.Font("Segoe UI", 1, 48)); *// NOI18N*

        BTN2.addActionListener(**new** java.awt.**event**.ActionListener() {

**public** **void** actionPerformed(java.awt.**event**.ActionEvent evt) {

                BTN2ActionPerformed(evt);

            }

        });

        BTN1.setFont(**new** java.awt.Font("Segoe UI", 1, 48)); *// NOI18N*

        BTN1.addActionListener(**new** java.awt.**event**.ActionListener() {

**public** **void** actionPerformed(java.awt.**event**.ActionEvent evt) {

                BTN1ActionPerformed(evt);

            }

        });

        BTN3.setFont(**new** java.awt.Font("Segoe UI", 1, 48)); *// NOI18N*

        BTN3.addActionListener(**new** java.awt.**event**.ActionListener() {

**public** **void** actionPerformed(java.awt.**event**.ActionEvent evt) {

                BTN3ActionPerformed(evt);

            }

        });

        reset.setFont(**new** java.awt.Font("Segoe UI", 1, 24)); *// NOI18N*

        reset.setText("Play Again!!!");

        reset.addActionListener(**new** java.awt.**event**.ActionListener() {

**public** **void** actionPerformed(java.awt.**event**.ActionEvent evt) {

                resetActionPerformed(evt);

            }

        });

        BTN6.setFont(**new** java.awt.Font("Segoe UI", 1, 48)); *// NOI18N*

        BTN6.addActionListener(**new** java.awt.**event**.ActionListener() {

**public** **void** actionPerformed(java.awt.**event**.ActionEvent evt) {

                BTN6ActionPerformed(evt);

            }

        });

        BTN5.setFont(**new** java.awt.Font("Segoe UI", 1, 48)); *// NOI18N*

        BTN5.addActionListener(**new** java.awt.**event**.ActionListener() {

**public** **void** actionPerformed(java.awt.**event**.ActionEvent evt) {

                BTN5ActionPerformed(evt);

            }

        });

        BTN4.setFont(**new** java.awt.Font("Segoe UI", 1, 48)); *// NOI18N*

        BTN4.addActionListener(**new** java.awt.**event**.ActionListener() {

**public** **void** actionPerformed(java.awt.**event**.ActionEvent evt) {

                BTN4ActionPerformed(evt);

            }

        });

        BTN9.setFont(**new** java.awt.Font("Segoe UI", 1, 48)); *// NOI18N*

        BTN9.addActionListener(**new** java.awt.**event**.ActionListener() {

**public** **void** actionPerformed(java.awt.**event**.ActionEvent evt) {

                BTN9ActionPerformed(evt);

            }

        });

        BTN8.setFont(**new** java.awt.Font("Segoe UI", 1, 48)); *// NOI18N*

        BTN8.addActionListener(**new** java.awt.**event**.ActionListener() {

**public** **void** actionPerformed(java.awt.**event**.ActionEvent evt) {

                BTN8ActionPerformed(evt);

            }

        });

        BTN7.setFont(**new** java.awt.Font("Segoe UI", 1, 48)); *// NOI18N*

        BTN7.addActionListener(**new** java.awt.**event**.ActionListener() {

**public** **void** actionPerformed(java.awt.**event**.ActionEvent evt) {

                BTN7ActionPerformed(evt);

            }

        });

        javax.swing.GroupLayout layout = **new** javax.swing.GroupLayout(getContentPane());

        getContentPane().setLayout(layout);

        layout.setHorizontalGroup(

            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

            .addGroup(layout.createSequentialGroup()

                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

                    .addGroup(layout.createSequentialGroup()

                        .addContainerGap()

                        .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

                    .addGroup(layout.createSequentialGroup()

                        .addGap(83, 83, 83)

                        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

                            .addGroup(layout.createSequentialGroup()

                                .addComponent(BTN1, javax.swing.GroupLayout.PREFERRED\_SIZE, 135, javax.swing.GroupLayout.PREFERRED\_SIZE)

                                .addGap(18, 18, 18)

                                .addComponent(BTN2, javax.swing.GroupLayout.PREFERRED\_SIZE, 135, javax.swing.GroupLayout.PREFERRED\_SIZE)

                                .addGap(18, 18, 18)

                                .addComponent(BTN3, javax.swing.GroupLayout.PREFERRED\_SIZE, 135, javax.swing.GroupLayout.PREFERRED\_SIZE))

                            .addGroup(layout.createSequentialGroup()

                                .addComponent(BTN4, javax.swing.GroupLayout.PREFERRED\_SIZE, 135, javax.swing.GroupLayout.PREFERRED\_SIZE)

                                .addGap(18, 18, 18)

                                .addComponent(BTN5, javax.swing.GroupLayout.PREFERRED\_SIZE, 135, javax.swing.GroupLayout.PREFERRED\_SIZE)

                                .addGap(18, 18, 18)

                                .addComponent(BTN6, javax.swing.GroupLayout.PREFERRED\_SIZE, 135, javax.swing.GroupLayout.PREFERRED\_SIZE))

                            .addGroup(layout.createSequentialGroup()

                                .addComponent(BTN7, javax.swing.GroupLayout.PREFERRED\_SIZE, 135, javax.swing.GroupLayout.PREFERRED\_SIZE)

                                .addGap(18, 18, 18)

                                .addComponent(BTN8, javax.swing.GroupLayout.PREFERRED\_SIZE, 135, javax.swing.GroupLayout.PREFERRED\_SIZE)

                                .addGap(18, 18, 18)

                                .addComponent(BTN9, javax.swing.GroupLayout.PREFERRED\_SIZE, 135, javax.swing.GroupLayout.PREFERRED\_SIZE))

                            .addGroup(layout.createSequentialGroup()

                                .addGap(70, 70, 70)

                                .addComponent(reset, javax.swing.GroupLayout.PREFERRED\_SIZE, 302, javax.swing.GroupLayout.PREFERRED\_SIZE)))))

                .addContainerGap(javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE))

        );

        layout.setVerticalGroup(

            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

            .addGroup(layout.createSequentialGroup()

                .addContainerGap()

                .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 53, Short.MAX\_VALUE)

                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

                    .addComponent(BTN1, javax.swing.GroupLayout.PREFERRED\_SIZE, 140, javax.swing.GroupLayout.PREFERRED\_SIZE)

                    .addComponent(BTN2, javax.swing.GroupLayout.PREFERRED\_SIZE, 140, javax.swing.GroupLayout.PREFERRED\_SIZE)

                    .addComponent(BTN3, javax.swing.GroupLayout.PREFERRED\_SIZE, 140, javax.swing.GroupLayout.PREFERRED\_SIZE))

                .addGap(28, 28, 28)

                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

                    .addComponent(BTN4, javax.swing.GroupLayout.PREFERRED\_SIZE, 140, javax.swing.GroupLayout.PREFERRED\_SIZE)

                    .addComponent(BTN5, javax.swing.GroupLayout.PREFERRED\_SIZE, 140, javax.swing.GroupLayout.PREFERRED\_SIZE)

                    .addComponent(BTN6, javax.swing.GroupLayout.PREFERRED\_SIZE, 140, javax.swing.GroupLayout.PREFERRED\_SIZE))

                .addGap(26, 26, 26)

                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

                    .addComponent(BTN7, javax.swing.GroupLayout.PREFERRED\_SIZE, 140, javax.swing.GroupLayout.PREFERRED\_SIZE)

                    .addComponent(BTN8, javax.swing.GroupLayout.PREFERRED\_SIZE, 140, javax.swing.GroupLayout.PREFERRED\_SIZE)

                    .addComponent(BTN9, javax.swing.GroupLayout.PREFERRED\_SIZE, 140, javax.swing.GroupLayout.PREFERRED\_SIZE))

                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

                .addComponent(reset, javax.swing.GroupLayout.PREFERRED\_SIZE, 66, javax.swing.GroupLayout.PREFERRED\_SIZE)

                .addGap(23, 23, 23))

        );

        pack();

    }*// </editor-fold>*

**private** **void** BTN1ActionPerformed(java.awt.**event**.ActionEvent evt) {

*// TODO add your handling code here:*

**if**(BTN1.getText()!="X"&&BTN1.getText()!="O")

        {

**if**(count%2==1)

        {

            BTN1.setText("X");

            count++;

        }

**else**

        {

            BTN1.setText("O");

            count++;

        }

        }

    }

**private** **void** BTN2ActionPerformed(java.awt.**event**.ActionEvent evt) {

*// TODO add your handling code here:*

**if**(BTN2.getText()!="X"&&BTN2.getText()!="O")

        {

**if**(count%2==1)

        {

            BTN2.setText("X");

            count++;

**return**;

        }

**else**

        {

            BTN2.setText("O");

            count++;

        }

        }

    }

**private** **void** BTN3ActionPerformed(java.awt.**event**.ActionEvent evt) {

*// TODO add your handling code here:*

**if**(BTN3.getText()!="X"&&BTN3.getText()!="O")

        {

**if**(count%2==1)

        {

            BTN3.setText("X");

            count++;

        }

**else**

        {

            BTN3.setText("O");

            count++;

        }

        }

    }

**private** **void** BTN4ActionPerformed(java.awt.**event**.ActionEvent evt) {

*// TODO add your handling code here:*

**if**(BTN4.getText()!="X"&&BTN4.getText()!="O")

        {

**if**(count%2==1)

        {

            BTN4.setText("X");

            count++;

        }

**else**

        {

            BTN4.setText("O");

            count++;

        }

        }

    }

**private** **void** BTN5ActionPerformed(java.awt.**event**.ActionEvent evt) {

*// TODO add your handling code here:*

**if**(BTN5.getText()!="X"&&BTN5.getText()!="O")

        {

**if**(count%2==1)

        {

            BTN5.setText("X");

            count++;

        }

**else**

        {

            BTN5.setText("O");

            count++;

        }

        }

    }

**private** **void** BTN6ActionPerformed(java.awt.**event**.ActionEvent evt) {

*// TODO add your handling code here:*

**if**(BTN6.getText()!="X"&&BTN6.getText()!="O")

        {

**if**(count%2==1)

        {

            BTN6.setText("X");

            count++;

        }

**else**

        {

            BTN6.setText("O");

            count++;

        }

        }

    }

**private** **void** BTN7ActionPerformed(java.awt.**event**.ActionEvent evt) {

*// TODO add your handling code here:*

**if**(BTN7.getText()!="X"&&BTN7.getText()!="O")

        {

**if**(count%2==1)

        {

            BTN7.setText("X");

            count++;

        }

**else**

        {

            BTN7.setText("O");

            count++;

        }

        }

    }

**private** **void** BTN8ActionPerformed(java.awt.**event**.ActionEvent evt) {

*// TODO add your handling code here:*

**if**(BTN8.getText()!="X"&&BTN8.getText()!="O")

        {

**if**(count%2==1)

        {

            BTN8.setText("X");

            count++;

        }

**else**

        {

            BTN8.setText("O");

            count++;

        }

        }

    }

**private** **void** BTN9ActionPerformed(java.awt.**event**.ActionEvent evt) {

*// TODO add your handling code here:*

**if**(BTN9.getText()!="X"&&BTN9.getText()!="O")

        {

**if**(count%2==1)

        {

            BTN9.setText("X");

            count++;

        }

**else**

        {

            BTN9.setText("O");

            count++;

        }

        }

    }

**private** **void** resetActionPerformed(java.awt.**event**.ActionEvent evt) {

BTN1.setText(" ");        *// TODO add your handling code here:*

BTN2.setText(" ");

BTN3.setText(" ");

BTN4.setText(" ");

BTN5.setText(" ");

BTN6.setText(" ");

BTN7.setText(" ");

BTN8.setText(" ");

BTN9.setText(" ");

    }

*/\*\**

*\* @param args the command line arguments*

*\*/*

**public** **static** **void** main(String args[]) {

*/\* Set the Nimbus look and feel \*/*

*//<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">*

*/\* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.*

*\* For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html*

*\*/*

**try** {

**for** (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {

**if** ("Nimbus".equals(info.getName())) {

                    javax.swing.UIManager.setLookAndFeel(info.getClassName());

**break**;

                }

            }

        } **catch** (ClassNotFoundException ex) {

            java.util.logging.Logger.getLogger(Tic\_tac\_toe.**class**.getName()).log(java.util.logging.Level.SEVERE, null, ex);

        } **catch** (InstantiationException ex) {

            java.util.logging.Logger.getLogger(Tic\_tac\_toe.**class**.getName()).log(java.util.logging.Level.SEVERE, null, ex);

        } **catch** (IllegalAccessException ex) {

            java.util.logging.Logger.getLogger(Tic\_tac\_toe.**class**.getName()).log(java.util.logging.Level.SEVERE, null, ex);

        } **catch** (javax.swing.UnsupportedLookAndFeelException ex) {

            java.util.logging.Logger.getLogger(Tic\_tac\_toe.**class**.getName()).log(java.util.logging.Level.SEVERE, null, ex);

        }

*//</editor-fold>*

*/\* Create and display the form \*/*

        java.awt.EventQueue.invokeLater(**new** Runnable() {

**public** **void** run() {

**new** Tic\_tac\_toe().setVisible(**true**);

            }

        });

    }

**int** count=1;

*// Variables declaration - do not modify*

**private** javax.swing.JButton BTN1;

**private** javax.swing.JButton BTN2;

**private** javax.swing.JButton BTN3;

**private** javax.swing.JButton BTN4;

**private** javax.swing.JButton BTN5;

**private** javax.swing.JButton BTN6;

**private** javax.swing.JButton BTN7;

**private** javax.swing.JButton BTN8;

**private** javax.swing.JButton BTN9;

**private** javax.swing.JLabel jLabel1;

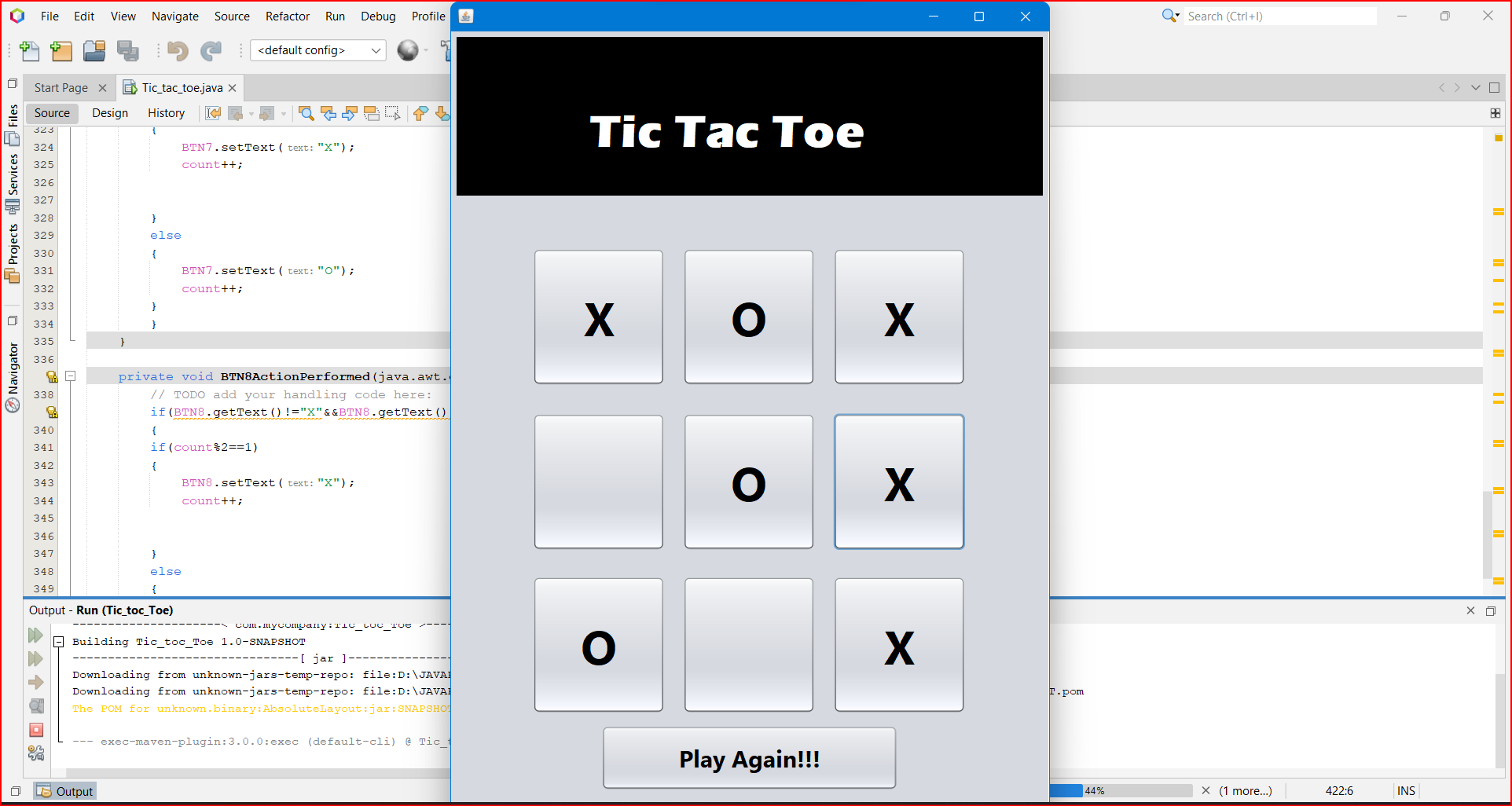
**private** javax.swing.JPanel jPanel1;

**private** javax.swing.JButton reset;

*// End of variables declaration*

}

**Output Screenshots:**

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****