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Computer Science Report

CS 143

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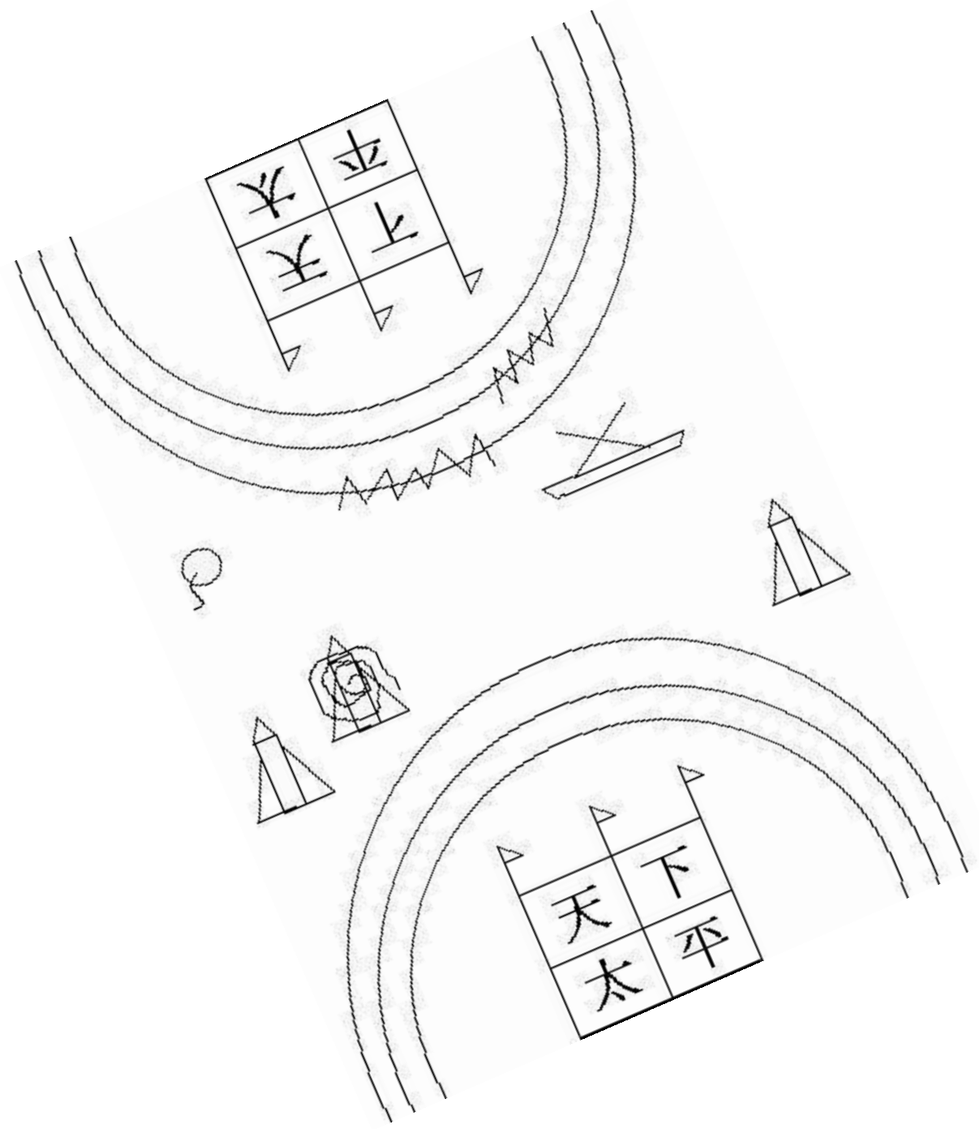
Game of World Peace



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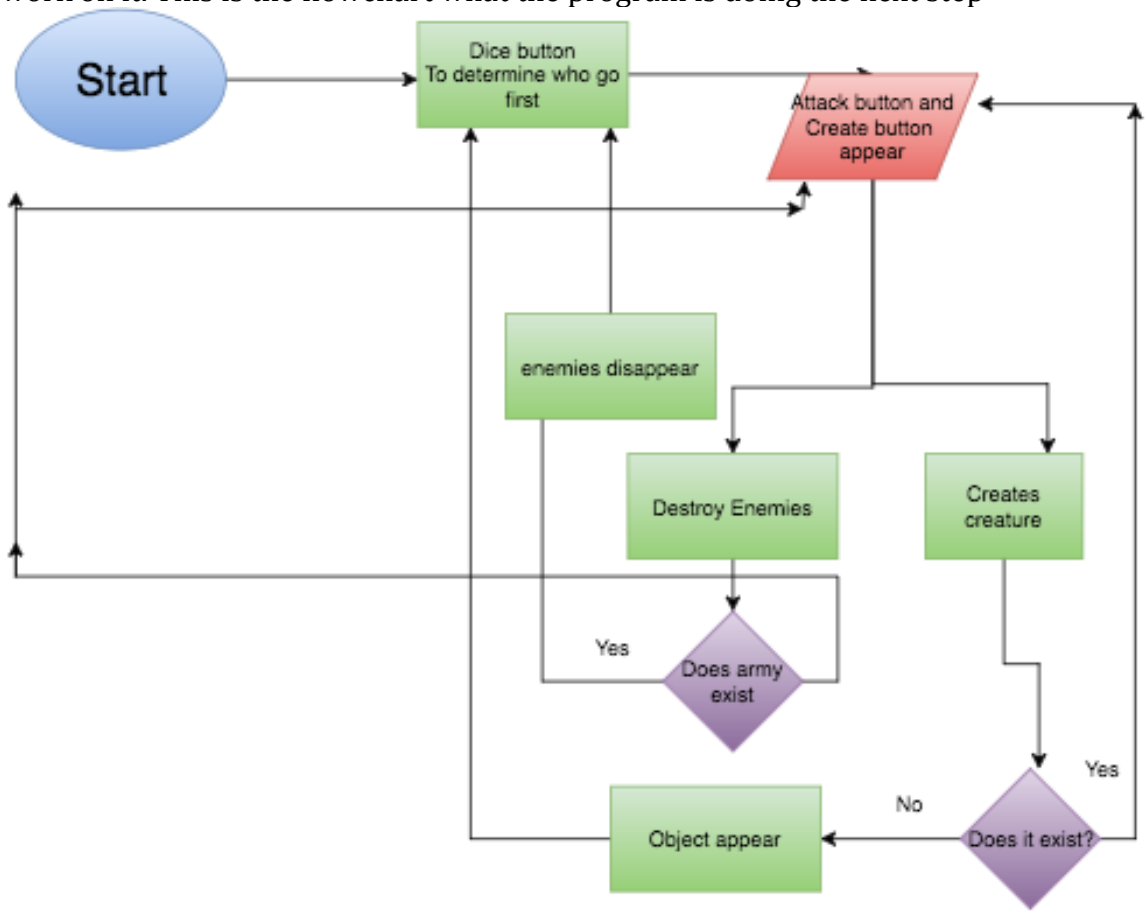
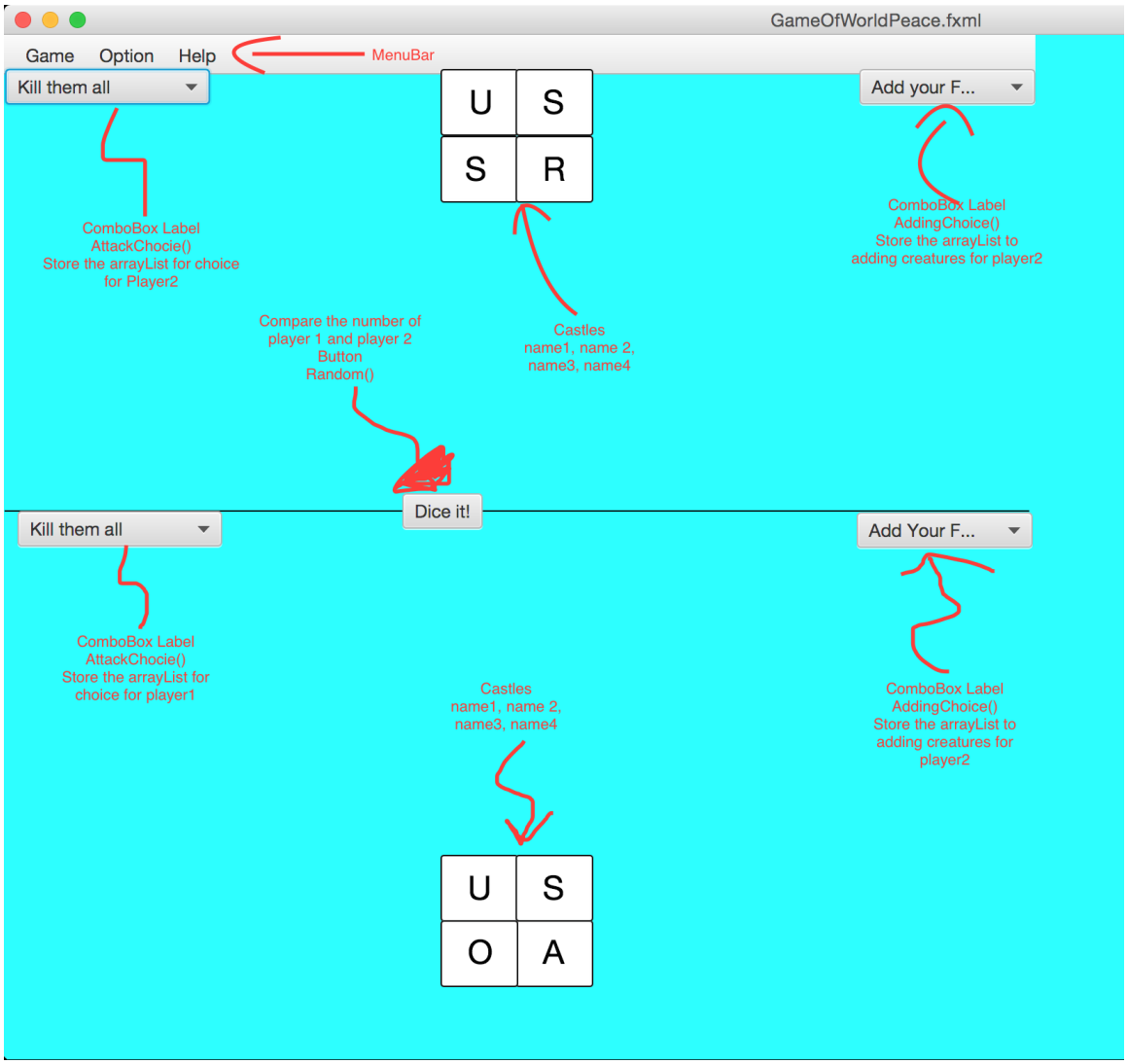
Design Idea:
We brought out the idea of doing the project because we should like to recollect our memory from our Elementary school. We used to play a lot during our leisure time. Since it is a game, which is no longer extant. We have not been seeing anyone bringing out the topic. Our group mates, Himson bring up the ideas, and we start to work on it. This is the flowchart what the program is doing the next step





Once the program starts, Dice button are clicked, it generates who is going to do the moves. When Player1 are going to start the moves, Adding button and Creature button will appear in the left and right corner. The program is determining what steps and rules to be. The game will be end when all creatures are destroyed.

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Explanation of the code

```
ObservableList<String> mechanicalList = FXCollections.observableArrayList("Flag1","Flag2","Flag3",
        "ProtectField1","ProtectField2","name1","name2","name3","name4", "Army1","Army2","Army3","Army4");

ObservableList<String> mechanicalList2 = FXCollections.observableArrayList("P2Flag1","P2Flag2","P2Flag3",
        "P2ProtectField1","P2ProtectField2","P2name1","P2name2","P2name3","P2name4", "P2Army1","P2Army2","P2Army3","P2Army4");

ObservableList<String> AttackP2List = FXCollections.observableArrayList("AttackP2Flag1","AttackP2Flag2","AttackP2Flag3",
        "AttackP2ProtectField1","AttackP2ProtectField2","AttackP2name1","AttackP2name2","AttackP2name3","AttackP2name4",
        "AttackP2Army1","AttackP2Army2","AttackP2Army3","AttackP2Army4");
ObservableList<String> AttackList = FXCollections.observableArrayList("AttackFlag1","AttackFlag2","AttackFlag3",
        "AttackProtectField1","AttackProtectField2","Attackname1","Attackname2","Attackname3","Attackname4", "AttackArmy1","AttackArmy2","AttackArmy3","Atta
```

Explanation

This is the creation of the combo box list. The list is using the array list, and it is using for adding the force of our war game. Mechanical List 1 and 2 is for the combo box list of adding the force team for player 1 and player2. Attack P2 List and List is for the combo box list of attacking the other player force.

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```
@FXML
private ComboBox Weapons;
@FXML
private ComboBox P2Weapons;
@FXML
private ComboBox Destroy;
@FXML
private ComboBox P2Destroy;
@FXML
private CubicCurve Flag1;
@FXML
private CubicCurve Flag2;
@FXML
private CubicCurve Flag3;
@FXML
private Rectangle ProtectField1;
@FXML
private Rectangle ProtectField2;
@FXML
private Button RandomButton;
@FXML
private Text name1;
@FXML
private Text name2;
@FXML
private Text name3;
@FXML
private Text name4;
@FXML
private ImageView Army1;
@FXML
private ImageView Army2;
```

Explanation

This is the variable of the bottom of the application. The FXML is meaning the things that we put in to the scene builder.

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```
public void doExit()
{
    exit();
}

public void Rules()
{
    Alert rulesalert = new Alert(AlertType.INFORMATION);
    rulesalert.setTitle("Rules");
    rulesalert.setHeaderText(null);
    rulesalert.setContentText
    (
            "This is the rules of World Peace Game:\n"
            +
            "\n"
            +
            "1.. The four square in each side mean your castle.\n"
            +
            "\n"
            +
            "2. Both side compare the numbers, which side number is larger,\n"
            +
            "\n"
            +
            "   then that side can build your weapons and army on you field\n"
            +
            "\n"
            +
            "4. Win the game by destroy all the weapons and Armys including the names of castle.\n"
            +
            "\n"
            +

        );

        rulesalert.showAndWait();
    }
```

Explanation

The doExit method is the class for exit the program. And the Rules method is for showing the rules of the game. Rules method is using Alert of javafx to show information of the Rules. Show and Wait is for you to click ok for the alert message.

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```
@FXML
private void AddingChoice()
{
        if(Weapons.getValue().equals("Flag1") && Flag1.isVisible() == false)
        {
            showFlag1();
        } else if(Weapons.getValue().equals("Flag2") && Flag2.isVisible() == false)
        {
            showFlag2();
        } else if (Weapons.getValue().equals("Flag3") && Flag3.isVisible() == false)
        {
            showFlag3();
        } else if(Weapons.getValue().equals("ProtectField1") && ProtectField1.isVisible() == false)
        {
        showProtectField1();
        } else if(Weapons.getValue().equals("ProtectField2") && ProtectField2.isVisible() == false)
        {
            showProtectField2();
        } else if(Weapons.getValue().equals("name1") && name1.isVisible() == false)
        {
            showname1();
        } else if(Weapons.getValue().equals("name2") && name2.isVisible() == false)
        {
            showname2();
        } else if(Weapons.getValue().equals("name3") && name3.isVisible() == false)
        {
            showname3();
        } else if(Weapons.getValue().equals("name4") && name4.isVisible() == false)
        {
            showname4();
        }else if(Weapons.getValue().equals("Army1") && Army1.isVisible() == false)
        {
```

Explanation

This is the method class of adding choice. It is adding the force of your side. It is using the “if else” cause for adding the choice.

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```
@FXML
private void P2AddingChoice()
{
        if(P2Weapons.getValue().equals("P2Flag1") && P2Flag1.isVisible() == false)
        {
            showP2Flag1();
        } else if(P2Weapons.getValue().equals("P2Flag2") && P2Flag2.isVisible() == false)
        {
            showP2Flag2();
        } else if (P2Weapons.getValue().equals("P2Flag3") && P2Flag3.isVisible() == false)
        {
            showP2Flag3();
        } else if(P2Weapons.getValue().equals("P2ProtectField1") && P2ProtectField1.isVisible() == false)
        {
            showP2ProtectField1();
        } else if(P2Weapons.getValue().equals("P2ProtectField2") && P2ProtectField2.isVisible() == false)
        {
            showP2ProtectField2();
        } else if(P2Weapons.getValue().equals("P2name1") && P2name1.isVisible() == false)
        {
            showP2name1();
        } else if(P2Weapons.getValue().equals("P2name2") && P2name2.isVisible() == false)
        {
            showP2name2();
        } else if(P2Weapons.getValue().equals("P2name3")&& P2name3.isVisible() == false)
        {
            showP2name3();
        } else if(P2Weapons.getValue().equals("P2name4")&& P2name4.isVisible() == false)
        {
            showP2name4();
        }else if(P2Weapons.getValue().equals("P2Army1") && P2Army1.isVisible() == false)
        {
            showP2Army1();
```

Explanation

This is the method class of Player 2 adding choice. It is adding the force of your side. It is using “if else” cause for adding the choice.

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```
    @FXML
    public void Reset(ActionEvent e)
    {
        this.Flag1.setVisible(false);
        this.Flag2.setVisible(false);
        this.Flag3.setVisible(false);
        this.ProtectField1.setVisible(false);
        this.ProtectField2.setVisible(false);
        this.name1.setVisible(false);
        this.name2.setVisible(false);
        this.name3.setVisible(false);
        this.name4.setVisible(false);
        this.Army1.setVisible(false);
        this.Army1.setVisible(false);
        this.Army2.setVisible(false);
        this.Army3.setVisible(false);
        this.Army4.setVisible(false);

        this.P2Flag1.setVisible(false);
        this.P2Flag2.setVisible(false);
        this.P2Flag3.setVisible(false);
        this.P2ProtectField1.setVisible(false);
        this.P2ProtectField2.setVisible(false);
        this.P2name1.setVisible(false);
        this.P2name2.setVisible(false);
        this.P2name3.setVisible(false);
        this.P2name4.setVisible(false);
        this.P2Army1.setVisible(false);
        this.P2Army1.setVisible(false);
        this.P2Army2.setVisible(false);
        this.P2Army3.setVisible(false);
        this.P2Army4.setVisible(false);
```

Explanation

This is the method class for reset button. It is for rest the game and the divisible all the force and names. It needs the action event for action in the scene builder.

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```
public void showFlag1()
{
    this.Flag1.setVisible(true);
    this.Destroy.setVisible(false);
    this.Weapons.setVisible(false);

}

public void showFlag2()
{
    this.Flag2.setVisible(true);
    this.Destroy.setVisible(false);
    this.Weapons.setVisible(false);
}

public void showFlag3()
{
    this.Flag3.setVisible(true);
    this.Destroy.setVisible(false);
    this.Weapons.setVisible(false);
}

public void showProtectField1()
{
    this.ProtectField1.setVisible(true);
    this.Destroy.setVisible(false);
    this.Weapons.setVisible(false);
}
```

```
public void showProtectField2()
{
    this.ProtectField2.setVisible(true);
    this.Destroy.setVisible(false);
    this.Weapons.setVisible(false);
}

public void showname1()
{
    this.name1.setVisible(true);
    this.Destroy.setVisible(false);
    this.Weapons.setVisible(false);
}

public void showname2()
{
    this.name2.setVisible(true);
    this.Destroy.setVisible(false);
    this.Weapons.setVisible(false);
}

public void showname3()
{
    this.name3.setVisible(true);
    this.Destroy.setVisible(false);
    this.Weapons.setVisible(false);
}

public void showname4()
{
```

```
    public void showname4()
    {
        this.name4.setVisible(true);
        this.Destroy.setVisible(false);
        this.Weapons.setVisible(false);
    }

     public void showArmy1()
    {
        this.Army1.setVisible(true);
        this.Destroy.setVisible(false);
        this.Weapons.setVisible(false);
    }

    public void showArmy2()
    {
        this.Army2.setVisible(true);
        this.Destroy.setVisible(false);
        this.Weapons.setVisible(false);
    }

    public void showArmy3()
    {
        this.Army3.setVisible(true);
        this.Destroy.setVisible(false);
        this.Weapons.setVisible(false);
    }

    public void showArmy4()
    {
        this.Army4.setVisible(true);
        this.Destroy.setVisible(false);
        this.Weapons.setVisible(false);
```

Explanation

These are the class methods of the showing the force of player one side.

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```
public void DFlag2()
{
    this.Flag2.setVisible(false);
    this.P2Destroy.setVisible(false);
    this.P2Weapons.setVisible(false);
}

public void DFlag3()
{
    this.Flag3.setVisible(false);
    this.P2Destroy.setVisible(false);
    this.P2Weapons.setVisible(false);
}

public void DProtectField1()
{
    this.ProtectField1.setVisible(false);
    this.P2Destroy.setVisible(false);
    this.P2Weapons.setVisible(false);
}

public void DProtectField2()
{
    this.ProtectField2.setVisible(false);
    this.P2Destroy.setVisible(false);
    this.P2Weapons.setVisible(false);
}

public void Dname1()
{
    this.name1.setVisible(false);
    this.P2Destroy.setVisible(false);
    this.P2Weapons.setVisible(false);
```

```
public void Dname1()
{
    this.name1.setVisible(false);
    this.P2Destroy.setVisible(false);
    this.P2Weapons.setVisible(false);
}

public void Dname2()
{
    this.name2.setVisible(false);
    this.P2Destroy.setVisible(false);
    this.P2Weapons.setVisible(false);
}

public void Dname3()
{
    this.name3.setVisible(false);
    this.P2Destroy.setVisible(false);
    this.P2Weapons.setVisible(false);
}

public void Dname4()
{
    this.name4.setVisible(false);
    this.P2Destroy.setVisible(false);
    this.P2Weapons.setVisible(false);
}

public void DArmy1()
{
    this.Army1.setVisible(false);
```

Explanation

These are the class methods of destroy the force of player on the other side.

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```
public void Ramdom ()
{
     Random ramdom = new Random();
     Alert TakeTurn = new Alert(AlertType.INFORMATION);
    TakeTurn.setTitle("Rules");
    TakeTurn.setHeaderText(null);
    checkVictory();

    die1 =(int)(Math.random()*6 +1);
     die2 = (int)(Math.random()*6 + 1);
     if( die1 > die2)
     {

         TakeTurn.setContentText(" Player 1 turn");
         TakeTurn.showAndWait();
         this.P2Destroy.setVisible(false);
         this.P2Weapons.setVisible(false);
         this.Destroy.setVisible(true);
         this.Weapons.setVisible(true);
//           checkVictory();

     }
     else
     {
         TakeTurn.setContentText("Player 2 turns");
         TakeTurn.showAndWait();
         this.Destroy.setVisible(false);
         this.Weapons.setVisible(false);
         this.P2Destroy.setVisible(true);
         this.P2Weapons.setVisible(true);
//           checkVictory();

     }
```

Explanation

This random class for compare the player one and player two for taking turns for player the game. If the player finish one action, then it needs to do the random action again.

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```
public Alert checkVictory()
{
    Alert WinStatement = new Alert(AlertType.INFORMATION);
   WinStatement.setTitle("Winner");
   WinStatement.setHeaderText(null);

    if(Army1.isVisible() == false && Army2.isVisible() == false &&Army3.isVisible() == false &&Army4.isVisible() == false &&
            name1.isVisible() == false &&name2.isVisible() == false &&name3.isVisible() == false &&name4.isVisible() == false &&
            ProtectField1.isVisible() == false &&ProtectField2.isVisible() == false && Flag1.isVisible() == false &&Flag2.isVisible() == false &&
            Flag3.isVisible() == false  )
    {
        this.RandomButton.setVisible(false);
        WinStatement.setContentText(" Player 2 win");
   Optional <ButtonType> result = WinStatement.showAndWait();
        if(result.get() == ButtonType.OK)
        {
            doExit();
        }

    } else if(P2Army1.isVisible() == false && P2Army2.isVisible() == false &&P2Army3.isVisible() == false &&P2Army4.isVisible() == false &&
            P2name1.isVisible() == false &&P2name2.isVisible() == false &&P2name3.isVisible() == false &&P2name4.isVisible() == false &&
            P2ProtectField1.isVisible() == false &&P2ProtectField2.isVisible() == false && P2Flag1.isVisible() == false &&P2Flag2.isVisible() == false &&
            P2Flag3.isVisible() == false  )
 {
this.RandomButton.setVisible(false);
WinStatement.setContentText(" Player 1 win");
Optional <ButtonType> result = WinStatement.showAndWait();
if(result.get() == ButtonType.OK)
    {
        doExit();
    }
```

Explanation

It is a class for checking victory for player and player. And it will show the player which side to win in the end of the game.

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```
 *
 * @author Himson
 */
public class WorldPeace extends Application {

    @Override
    public void start(Stage stage) throws Exception {
        Parent root = FXMLLoader.load(getClass().getResource("GameOfWorldPeace.fxml"));

        stage.setTitle("WorldPeace");
        Scene scene = new Scene(root);

        stage.setScene(scene);

        stage.show();
    }

    /**
     * @param args the command line arguments
     */
    public static void main(String[] args) {
        launch(args);
    }
```

Explanation

It is the main class of the game, and it will set the stage for the game.

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```
    Author      : Himson
*/

root
{
    display: block;

    -fx-boder-color:
}
```

Explanation

It is the css class file for creating the style of the background in the game

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