



```
namespace RCS_CalebFontenot
```

```
{
```

```
    public partial class Form1 : Form
```

```
    {
```

```
        public Form1()
```

```
        {
```

```
            InitializeComponent();
```

```
        }
```

```
        private int cpuAction;
```

```
        private long cpuRockCount = 0, playerRockCount = 0, cpuScissorsCount = 0, playerScissorsCount = 0, cpuPaperCount = 0, playerPaperCount = 0;
```

```
        private void updateTextBoxes()
```

```
        {
```

```
            // Increment the textboxes!
```

```
            cpuRockCounter.Text = "Rock: " + cpuRockCount.ToString();
```

```
            playerRockCounter.Text = "Rock: " + playerRockCount.ToString();
```

```
            cpuPaperCounter.Text = "Paper: " + cpuPaperCount.ToString();
```

```
            playerPaperCounter.Text = "Paper: " + playerPaperCount.ToString();
```

```
            cpuScissorsCounter.Text = "Scissors: " + cpuScissorsCount.ToString();
```

```
            playerScissorsCounter.Text = "Scissors: " + playerScissorsCount.ToString();
```

```
        }
```

```
        private void winIncrement(string whatToIncrement)
```

```
        {
```

```
            // Increment the variables!
```

```
            switch (whatToIncrement)
```

```
            {
```

```
                case "rockDraw":
```

```
                    cpuRockCount++;
```

```
                    playerRockCount++;
```

```
                    break;
```

```
                case "paperDraw":
```

```
                    cpuPaperCount++;
```

```
                    playerPaperCount++;
```

```
                    break;
```

```
                case "scissorsDraw":
```

```
                    cpuScissorsCount++;
```

```
                    playerScissorsCount++;
```

```
                    break;
```

```
                case "cpuRock":
```

```
                    cpuRockCount++;
```

```
                    break;
```

```
                case "playerRock":
```

```
                    playerRockCount++;
```

```
                    break;
```

```
                case "cpuPaper":
```

```
                    cpuPaperCount++;
```

```
                    break;
```

```
                case "playerPaper":
```

```
                    playerPaperCount++;
```

```
                    break;
```

```
                case "cpuScissors":
```

```
                    cpuScissorsCount++;
```

```
                    break;
```

```
                case "playerScissors":
```

```
                    playerScissorsCount++;
```

```
                    break;
```

```
            }
```

```
        updateTextBoxes();
    }
    private void endGame()
    {
        // Disable the interactivity of the images.
        rockPictureBox.Enabled = false;
        paperPictureBox.Enabled = false;
        scissorPictureBox.Enabled = false;
        // Re-enable the newGameButton.
        newGameButton.Enabled = true;
    }
    private void playRound(int action)
    {
        // The action variable determines what we will do.
        switch (action)
        {
            case -1: //The Player is starting the game.
                Random rng = new Random();
                cpuAction = rng.Next(0, 3);
                statusLabel.Text = "The computer has chosen a move. Please make yours.";
                // Clear the computer choice image.
                cpuMove.Visible = false;
                break;
            case 0: // The player has chosen rock.
                switch (cpuAction)
                {
                    case 0:
                        statusLabel.Text = "The computer has chosen rock. You chose rock as well. It is a draw.";
                        winIncrement("rockDraw");
                        cpuMove.Visible = true;
                        cpuMove.Image = Properties.Resources.Rock;
                        break;
                    case 1:
                        statusLabel.Text = "The computer chose paper. You chose rock. The computer wins!";
                        winIncrement("cpuPaper");
                        cpuMove.Visible = true;
                        cpuMove.Image = Properties.Resources.Paper;
                        break;
                    case 2:
                        statusLabel.Text = "The computer chose scissors. You chose rock. You win!";
                        winIncrement("playerScissors");
                        cpuMove.Visible = true;
                        cpuMove.Image = Properties.Resources.Scissors;
                        break;
                }
                endGame();
                break;
            case 1:
                switch (cpuAction)
                {
                    case 0:
                        statusLabel.Text = "The computer has chosen rock. You chose paper. You win!";
                        winIncrement("cpuRock");
                        cpuMove.Visible = true;
                        cpuMove.Image = Properties.Resources.Rock;
                        break;
                    case 1:
                        statusLabel.Text = "The computer chose paper. You chose paper as well. It
```

```
        is a draw.");
        winIncrement("paperDraw");
        cpuMove.Visible = true;
        cpuMove.Image = Properties.Resources.Paper;
        break;
    case 2:
        statusLabel.Text = "The computer chose scissors. You chose paper. The
        computer wins!";
        winIncrement("cpuScissors");
        cpuMove.Image = Properties.Resources.Scissors;
        cpuMove.Visible = true;
        break;
    }
    endGame();
    break;
case 2:
    {
        switch (cpuAction)
        {
            case 0:
                statusLabel.Text = "The computer has chosen rock. You chose scissors.
                The computer wins!";
                winIncrement("cpuRock");
                cpuMove.Image = Properties.Resources.Rock;
                cpuMove.Visible = true;
                break;
            case 1:
                statusLabel.Text = "The computer chose paper. You chose scissors. You
                win!";
                winIncrement("playerScissors");
                cpuMove.Image = Properties.Resources.Paper;
                cpuMove.Visible = true;
                break;
            case 2:
                statusLabel.Text = "The computer chose scissors. You chose scissors
                as well. It is a draw.";
                winIncrement("paperDraw");
                cpuMove.Image = Properties.Resources.Scissors;
                cpuMove.Visible = true;
                break;
        }
    }
    endGame();
    break;
}

}

private void Form1_Load(object sender, EventArgs e)
{
    // Do some stuff on start
    statusLabel.Text = "Ready. Press 'New Game' to start a game.";
    // Disable the interactivity of the images.
    rockPictureBox.Enabled = false;
    paperPictureBox.Enabled = false;
    scissorPictureBox.Enabled = false;
}

private void clearButton_Click(object sender, EventArgs e)
{
    cpuRockCount = 0;
    playerRockCount = 0;
}
```

```
    cpuScissorsCount = 0;
    playerScissorsCount = 0;
    cpuPaperCount = 0;
    playerPaperCount = 0;
    updateTextBoxes();
}

private void newGameButton_Click(object sender, EventArgs e)
{
    // Enable the images' interactivity.
    rockPictureBox.Enabled = true;
    paperPictureBox.Enabled = true;
    scissorPictureBox.Enabled = true;
    // Disable this button.
    newGameButton.Enabled = false;
    playRound(-1);
}

private void rockPictureBox_Click(object sender, EventArgs e)
{
    playRound(0);
}

private void paperPictureBox_Click(object sender, EventArgs e)
{
    playRound(1);
}

private void scissorPictureBox_Click(object sender, EventArgs e)
{
    playRound(2);
}

private void exitButton_Click(object sender, EventArgs e)
{
    this.Close();
}
}
```