'CardGame

'Dec 2, '10

'CGaw

Public Class Form1

Private Sub btnPlayGame\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnPlayGame.Click

Static playerScore As Integer = 0

Static computerScore As Integer = 0

Static drawsScore As Integer = 0

Dim playerTotal As Integer, computerTotal As Integer

Call DealCard(Me.picPlayerCard1, playerTotal)

Call DealCard(Me.picPlayerCard2, playerTotal)

Call DealCard(Me.picPlayerCard3, playerTotal)

Me.lblPlayerPoints.Text = playerTotal

Call DealCard(Me.picComputerCard1, computerTotal)

Call DealCard(Me.picComputerCard2, computerTotal)

Call DealCard(Me.picComputerCard3, computerTotal)

Me.lblComputerPoints.Text = computerTotal

If Winner(playerTotal, computerTotal) = "Player" Then

Me.lblWinner.Text = "You won!"

Call UpdateScore(playerScore)

ElseIf Winner(playerTotal, computerTotal) = "Computer" Then

Me.lblWinner.Text = "Computer won!"

Call UpdateScore(computerScore)

Else

Me.lblWinner.Text = "It's a draw!"

Call UpdateScore(drawsScore)

End If

Call ShowScore(Me.lblScore, playerScore, computerScore, drawsScore)

End Sub

'Displays a card corresponding to a random number in the range 1 to 10.

'

'post: picCard now displays a card in the range 1 to 10 and

'total score has been updated.

'

Sub DealCard(ByRef picCard As PictureBox, ByRef total As Integer)

Dim cardNum As Integer = RndInt(1, 10)

Select Case cardNum

Case 1

picCard.Image = My.Resources.card1

Case 2

picCard.Image = My.Resources.card2

Case 3

picCard.Image = My.Resources.card3

Case 4

picCard.Image = My.Resources.card4

Case 5

picCard.Image = My.Resources.card5

Case 6

picCard.Image = My.Resources.card6

Case 7

picCard.Image = My.Resources.card7

Case 8

picCard.Image = My.Resources.card8

Case 9

picCard.Image = My.Resources.card9

Case 10

picCard.Image = My.Resources.card10

End Select

total += cardNum

End Sub

'Calculates a random number between lowNum and highNum.

'

'post: a number between lowNum and highNum has been returned.

'

Function RndInt(ByVal lowNum As Integer, ByVal highNum As Integer) As Integer

Randomize()

Return Int((highNum - lowNum + 1) \* Rnd() + lowNum)

End Function

'Returns a string indicating the winner.

'

'post: The winner has been returned.

'

Function Winner(ByVal playerTotal As Integer, ByVal compTotal As Integer) As String

If playerTotal = compTotal Then

Return "Draw"

ElseIf compTotal > playerTotal Then

Return "Computer"

Else

Return "Player"

End If

End Function

'Updates the score of winner.

'

'post: winner score has been increased by WIN\_POINTS.

'

Sub UpdateScore(ByRef winner As Integer)

Const WIN\_POINTS As Integer = 1

winner += WIN\_POINTS

End Sub

'Displays the current score of Player, Computer, and draws.

'

'post: scores have been displayed in a label.

'

Sub ShowScore(ByRef lblLabel As Label, ByVal playerScore As Integer, ByVal compScore As Integer, ByVal drawsScore As Integer)

lblScore.Text = "You: " & playerScore & vbCrLf \_

& "Computer: " & compScore & vbCrLf \_

& "Draws: " & drawsScore

End Sub

Private Sub lblScore\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles lblScore.Click

End Sub

Private Sub Form1\_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load

End Sub

End Class