Project 1: Pokémon Go!

Saturday, September 24, 2022   7:35 PM

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Option Explicit
'Isaac Palmer Project 1 (Pokemon Go!)


Sub PokemonGo()
'Core variables for finding local pokemon in YOUR area!
Dim welcome As VbMsgBoxResult
Dim number As Integer
Dim var As Integer
Dim list As String
Dim choice As String
Dim x As Integer
Dim y As Integer
Dim rando As Integer
Dim randoStop As Integer
Dim randoBalls As Integer
Dim pokestopspawn As Integer
Dim pokestopstring As String
Dim powerLevel As Integer
Dim stableP As Integer
Dim partB As Integer
Dim partBcap As Boolean

'User input
Dim userInput As String
Dim decide1 As VbMsgBoxResult
Dim gameStats As VbMsgBoxResult
Dim CaptureOnly As Integer ' pokemon captured
Dim CaptureKeep As Integer ' pokemon captured and caught
Dim keepQ As VbMsgBoxResult
Dim capLedger As String ' Output what was caught and kept at the end

' Declare pokeballs
Dim pokeballslot As Variant

Dim pokeStore1 As Integer ' pokeball 1 storage
Dim pokeStore2 As Integer ' pokeball 2 storage
Dim pokeStore3 As Integer ' pokeball 3 storage
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Dim cap1edget As String 'Output what was caught and kept at the End

' Declare pokeballs
Dim pokeballselect As Variant
Dim pokeStore1 As Integer ' pokeball 1 storage
Dim pokeStore2 As Integer ' pokeball 2 storage
Dim pokeStore3 As Integer ' pokeball 3 storage
Dim throwPos As Variant
Dim pokePos As Integer
Dim capturePoke As Double
Dim hitornot As Integer


Dim pokeballStore As Integer ' Total amount of pokeballs
Dim totalPoke As Integer ' Total amount of pokemon captured

'Start Game
pokeStore1 = Int((20 - 10 + 1) * Rnd + 10) '10 to 20 strength 1 pokeballs randomized at game
start
pokeStore2 = Int((12 - 2 + 1) * Rnd + 2) '2 to 12
pokeStore3 = Int((8 - 0 + 1) * Rnd + 0) ' 0 to 8
pokeballStore = pokeStore1 + pokeStore2 + pokeStore3

welcome = MsgBox("Welcome! Let's search for pokemon." & vbCrLf & "Type #1 Pokeballs: " &
pokeStore1 & vbCrLf & "Type #2 Pokeballs: " & pokeStore2 & vbCrLf & "Type #3 Pokeballs: " &
pokeStore3, vbOKOnly, "Main Menu")
choice = vbYes

While choice = vbYes And pokeballStore > 0 And totalPoke < 10 'Storage for pokeballs and
pokemon condition
list = ""
pokestopstring = ""


' Randomize pokemon searches
'Int ((upperbound - lowerbound + 1) * Rnd + lowerbound)
number = Int((6 - 0 + 1) * Rnd + 0) ' Between 0 and 6 searches performed
var = 0

'For loop to randomize pokemon
For x = 1 To number
' Randomized starting attributes
rando = Int((8 - 1 + 1) * Rnd + 1) ' random number between 1 and 8
powerLevel = Int((800 - 50 + 1) * Rnd + 50) ' Power level 50-800
stableP = Int((1 - 0 + 1) * Rnd + 0) 'Stable or active decision (stable is 0, +- 1) (active is 1, +-3)
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'For loop to randomize pokemon
For x = 1 To number

    'Randomized starting attributes
rando = Int((8 - 1 + 1) * Rnd + 1) ' random number between 1 and 8
powerLevel = Int((800 - 50 + 1) * Rnd + 50) ' Power level 50-800
stableP = Int((1 - 0 + 1) * Rnd + 0) 'Stable or active decision (stable is 0, +- 1) (active is 1, +-3)
pokePos = Int((10 - 0 + 1) * Rnd + 0) 'Pokemon position

' If my number generator equals the below numbers, output the pokemon name
If rando = 1 Then
    list = list & vbCrLf & x & "." & " Charizard"
ElseIf rando = 2 Then
    list = list & vbCrLf & x & "." & " Pikachu"
ElseIf rando = 3 Then
    list = list & vbCrLf & x & "." & " Beezlebub"
ElseIf rando = 4 Then
    list = list & vbCrLf & x & "." & " Ferrari"
ElseIf rando = 5 Then
    list = list & vbCrLf & x & "." & " Squirtle"
ElseIf rando = 6 Then
    list = list & vbCrLf & x & "." & " Ostrich"
ElseIf rando = 7 Then
    list = list & vbCrLf & x & "." & " Ricin"
Else
    list = list & vbCrLf & x & "." & " Anthrax"
End If

Next x

'Generate between 0 and 3 pokestops
pokestopspawn = Application.WorksheetFunction.RandBetween(-2, 2) ' Generate number of
times pokestops appear between negative 2 (for loop doesn't execute with negatives) and 2

For y = 0 To pokestopspawn ' if this value is 2, loops three times

pokestopstring = "Pokestop"
list = list & vbCrLf & pokestopstring
pokestopstring = ""

Next y


userInput = InputBox("Here's what is nearby: " & list & pokestopstring & vbCrLf & vbCrLf &
"Want to capture a Pokemon? Type the name of the creature you saw from the list!", "Open
World")
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Next y


userInput = InputBox("Here's what is nearby: " & list & pokestopstring & vbCrLf & vbCrLf &
"Want to capture a Pokemon? Type the name of the creature you saw from the list!", "Open
World")
list = LCase(list)
userInput = LCase(userInput)

If userInput = "quit" Then ' extra option to break out of program while testing code
    GoTo GameOver
End If

While userInput <> "charizard" And userInput <> "pikachu" And userInput <> "beezlebub" An
userInput <> "ferrari" And userInput <> "squirtle" And userInput <> "ostrich" And userInput <
"ricin" And userInput <> "anthrax" And userInput <> "pokestop" And userInput <> ""
    userInput = InputBox("Try again! You need to type the creature's name." & vbCrLf & "Here
what is nearby: " & list & pokestopstring & vbCrLf & vbCrLf & "Want to capture a Pokemon?
Type the name of the creature you saw from the list!")
    list = LCase(list)
    userInput = LCase(userInput)
Wend

' Read off pokemon and randomized power levels
If userInput = "charizard" Then
    decide1 = MsgBox("Charizard: Power Level " & powerLevel & ". Would you like to try
capturing?", vbYesNo, "Capture?")
ElseIf userInput = "pikachu" Then
    decide1 = MsgBox("Pikachu: Power Level " & powerLevel & ". Would you like to try
capturing?", vbYesNo, "Capture?")
ElseIf userInput = "beezlebub" Then
    decide1 = MsgBox("Beezlebub: Power Level " & powerLevel & ". Would you like to try
capturing?", vbYesNo, "Capture?")
ElseIf userInput = "ferrari" Then
    decide1 = MsgBox("Ferrari: Power Level " & powerLevel & ". Would you like to try
capturing?", vbYesNo, "Capture?")
ElseIf userInput = "squirtle" Then
    decide1 = MsgBox("Squirtle: Power Level " & powerLevel & ". Would you like to try
capturing?", vbYesNo, "Capture?")
ElseIf userInput = "ostrich" Then
    decide1 = MsgBox("Ostrich: Power Level " & powerLevel & ". Would you like to t

ElseIf userInput = "ricin" Then
    decide1 = MsgBox("Ricin: Power Level " & powerLevel & ". Would you like to try
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capturing?", vbYesNo, "Capture?")
ElseIf userInput = "ostrich" Then
    decide1 = MsgBox("Ostrich: Power Level " & powerLevel & ". Would you like to try
capturing?", vbYesNo, "Capture?")
ElseIf userInput = "ricin" Then
    decide1 = MsgBox("Ricin: Power Level " & powerLevel & ". Would you like to try
capturing?", vbYesNo, "Capture?")
ElseIf userInput = "anthrax" Then
    decide1 = MsgBox("Anthrax: Power Level " & powerLevel & ". Would you like to try
capturing?", vbYesNo, "Capture?")
Else
    GoTo Decision
End If


If decide1 = vbYes Then
    pokeballselect = InputBox("Select your Pokeball: " & vbCrLf & "1 - Capture Power 50 - 250
(Quantity: " & pokeStore1 & ")" & vbCrLf & "2 - Capture Power 50 - 400 (Quantity: " &
pokeStore2 & ")" & vbCrLf & "3 - Capture Power 50 - 600 (Quantity: " & pokeStore3 & ")",
"Pokeballs")
    ' Condition whether user selects the right inputs or not
    While pokeStore1 = 0 And pokeballselect = Val(1) ' Rejects user if they want to use a
pokeball that's out of stock
        MsgBox ("Sorry, you're out of Type #1 Pokeballs! Pick a different ball.")
        pokeballselect = InputBox("Select your Pokeball: " & vbCrLf & "1 - Capture Power 50 - 25
(Quantity: " & pokeStore1 & ")" & vbCrLf & "2 - Capture Power 50 - 400 (Quantity: " &
pokeStore2 & ")" & vbCrLf & "3 - Capture Power 50 - 600 (Quantity: " & pokeStore3 & ")",
"Pokeballs")
    Wend


    While pokeStore2 = 0 And pokeballselect = Val(2) ' Rejects user if they want to use a
pokeball that's out of stock
        MsgBox ("Sorry, you're out of Type #2 Pokeballs! Pick a different ball.")
        pokeballselect = InputBox("Select your Pokeball: " & vbCrLf & "1 - Capture Power 50 - 25
(Quantity: " & pokeStore1 & ")" & vbCrLf & "2 - Capture Power 50 - 400 (Quantity: " &
pokeStore2 & ")" & vbCrLf & "3 - Capture Power 50 - 600 (Quantity: " & pokeStore3 & ")",
"Pokeballs")
    Wend


    While pokeStore3 = 0 And pokeballselect = Val(3) ' Rejects user if they want to use a
pokeball that's out of stock
        MsgBox ("Sorry, you're out of Type #3 Pokeballs! Pick a different ball.")
        pokeballselect = InputBox("Select your Pokeball: " & vbCrLf & "1 - Capture Power 50 - 25
(Quantity: " & pokeStore1 & ")" & vbCrLf & "2 - Capture Power 50 - 400 (Quantity: " &
pokeStore2 & ")" & vbCrLf & "3 - Capture Power 50 - 600 (Quantity: " & pokeStore3 & ")",
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        While pokeStore3 = 0 And pokeballselect = Val(3) ' Rejects user if they want to use a
pokeball that's out of stock
            MsgBox ("Sorry, you're out of Type III Pokeballs. Pick a different ball")
            pokeballselect = InputBox("Select your Pokeball: " & vbCrLf & "1 - Capture Power 50 - 25
(Quantity: " & pokeStore1 & ")" & vbCrLf & "2 - Capture Power 50 - 400 (Quantity: " &
pokeStore2 & ")" & vbCrLf & "3 - Capture Power 50 - 600 (Quantity: " & pokeStore3 & ")",
"Pokeballs")
        Wend

        While pokeballselect < Val(1) Or pokeballselect > Val(3) ' Error proofing
            MsgBox ("Please enter 1, 2, or 3 corresponding with your pokeball of choice.")
            pokeballselect = InputBox("Select your Pokeball: " & vbCrLf & "1 - Capture Power 50 - 25
(Quantity: " & pokeStore1 & ")" & vbCrLf & "2 - Capture Power 50 - 400 (Quantity: " &
pokeStore2 & ")" & vbCrLf & "3 - Capture Power 50 - 600 (Quantity: " & pokeStore3 & ")",
"Pokeballs")
        Wend

'Determine whether pokeball is powerful enough to capture pokemon and subtract pokeball
from storage
        If pokeballselect = Val(1) Then
            If powerLevel >= 50 And powerLevel <= 250 Then
                partBcap = True
            Else: partBcap = False ' This is used as part of the part b criteria for capturing pokemon
            End If
            pokeStore1 = pokeStore1 - 1
        ElseIf pokeballselect = Val(2) Then
            If powerLevel >= 50 And powerLevel <= 400 Then
                partBcap = True
            Else: partBcap = False
            End If
            pokeStore2 = pokeStore2 - 1
        ElseIf pokeballselect = Val(3) Then
            If powerLevel >= 50 And powerLevel <= 600 Then
                partBcap = True
            Else: partBcap = False
            End If
            pokeStore3 = pokeStore3 - 1
        End If
Else
    GoTo Decision
End If

' Throw pokeball
throwPos = InputBox("Enter a throw position (1-10)", "Throw a Ball")
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        GoTo Decision


    ' Throw pokeball
    throwPos = InputBox("Enter a throw position (1-10)", "Throw a Ball")

    While throwPos < Val(1) Or throwPos > Val(10)
    ErrorStuff:
        MsgBox ("Please enter a number 1 through 10")
        throwPos = InputBox("Enter a throw position (1-10)", "Throw a Ball")
    Wend

    'Pokeball hits or misses pokemon (part a)
    hitornot = Abs(pokePos - throwPos)
    If stableP = 0 Then ' 0 = Active =+- 1 range from position
        If hitornot <= 1 Then
            MsgBox ("You hit the " & userInput & "!") ' Hit pokemon
            partB = 1
            CaptureOnly = CaptureOnly + 1
        ElseIf hitornot <= 2 Then
            MsgBox ("You barely hit the " & userInput & "!") ' One range out
            partB = 2
            CaptureOnly = CaptureOnly + 1
        ElseIf hitornot <= 3 Then
            MsgBox ("You baaarely hit the " & userInput & "!") ' Two ranges out
            partB = 3
            CaptureOnly = CaptureOnly + 1
        ElseIf hitornot <= 4 Then
            MsgBox ("You BARELY hit the " & userInput & "!") ' Three ranges out
            partB = 4
            CaptureOnly = CaptureOnly + 1
        Else
            MsgBox ("Bummer, your pokeball missed the " & userInput & ".")
            partB = 5
        End If
    ElseIf stableP = 1 Then '1 =Stable = +-3 from position
        If hitornot <= 3 Then
            MsgBox ("You hit the " & userInput & "!")
            partB = 1
            CaptureOnly = CaptureOnly + 1
        ElseIf hitornot <= 6 Then
            MsgBox ("You barely hit the " & userInput & "!")
            partB = 2
            CaptureOnly = CaptureOnly + 1
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            partB = 1
            CaptureOnly = CaptureOnly + 1
        ElseIf hitornot <= 6 Then
            MsgBox ("You barely hit the " & userInput & "!")
            partB = 2
            CaptureOnly = CaptureOnly + 1
        ElseIf hitornot <= 9 Then
            MsgBox ("You baaarely hit the " & userInput & "!")
            partB = 3
            CaptureOnly = CaptureOnly + 1
        ElseIf hitornot <= 12 Then
            MsgBox ("You BARELY hit the " & userInput & "!")
            partB = 4
            CaptureOnly = CaptureOnly + 1
        Else
            MsgBox ("Bummer, your pokeball missed the " & userInput & ".")
            partB = 5
            CaptureOnly = CaptureOnly + 1
        End If
    End If


' Pokemon captured or not captured based on power levels (PART B)
capturePoke = Rnd(1)
If partB = 1 And partBcap = True Then ' Code for 85% chance
    If capturePoke < 0.8 Then
        MsgBox ("The " & userInput & " was captured!!!")
        keepQ = MsgBox("Would you like to keep your " & userInput & "?", vbYesNo, "Keep?")
        If keepQ = vbYes Then ' Decide whether to keep or not
            CaptureKeep = CaptureKeep + 1 ' Game over screen quantity
            totalPoke = totalPoke + 1 ' Total inventory updated
            capLedger = capLedger + vbCrLf & userInput ' What type of pokemon was kept at game
over screen
            MsgBox ("The " & userInput & " is now in your inventory.")
        Else
            MsgBox ("The " & userInput & " was thrown back into the wild.")
        End If
    Else
        MsgBox ("The " & userInput & " escaped!!!")
    End If
ElseIf partB = 2 And partBcap = True Then ' 55% chance
    If capturePoke < 0.55 Then
        MsgBox ("The " & userInput & " was captured!!!")
        keepQ = MsgBox("Would you like to keep your " & userInput & "?", vbYesNo, "Keep?")
        If keepQ = vbYes Then ' Decide whether to keep or not
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        End If
    ElseIf partB = 2 And partBcap = True Then ' 55% chance

            .
        MsgBox ("The " & userInput & " was captured!!!")
        keepQ = MsgBox("Would you like to keep your " & userInput & "?", vbYesNo, "Keep?")
        If keepQ = vbYes Then ' Decide whether to keep or not
            CaptureKeep = CaptureKeep + 1
            totalPoke = totalPoke + 1
            capLedger = capLedger + vbCrLf & userInput
            MsgBox ("The " & userInput & " is now in your inventory.") ' Kept pokemon output and
stored
        Else
            MsgBox ("The " & userInput & " was thrown back into the wild.")
        End If
    Else
        MsgBox ("The " & userInput & " escaped!!!")
    End If
    ElseIf partB = 3 And partBcap = True Then ' 20% chance
    If capturePoke < 0.2 Then
        MsgBox ("The " & userInput & " was captured!!!")
        keepQ = MsgBox("Would you like to keep your " & userInput & "?", vbYesNo, "Keep?")
        If keepQ = vbYes Then ' Decide whether to keep or not
            CaptureKeep = CaptureKeep + 1
            totalPoke = totalPoke + 1
            capLedger = capLedger + vbCrLf & userInput
            MsgBox ("The " & userInput & " is now in your inventory.")
        Else
            MsgBox ("The " & userInput & " was thrown back into the wild.")
        End If
    Else
        MsgBox ("The " & userInput & " escaped!!!")
    End If
    ElseIf partB = 4 And partBcap = True Then
    If capturePoke < 0.05 Then ' 5% chance
        MsgBox ("The " & userInput & " was captured!!!")
        keepQ = MsgBox("Would you like to keep your " & userInput & "?", vbYesNo, "Keep?")
        If keepQ = vbYes Then ' Decide whether to keep or not
            CaptureKeep = CaptureKeep + 1
            totalPoke = totalPoke + 1
            capLedger = capLedger + vbCrLf & userInput
            MsgBox ("The " & userInput & " is now in your inventory.")

            .
            MsgBox ("The " & userInput & " was thrown back into the wild.")
        End If
    Else
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            capLedger = capLedger + vbCrLf & userInput
            MsgBox ("The " & userInput & " is now in your inventory.")
        Else
            MsgBox ("The " & userInput & " was thrown back into the wild.")
        End If
    Else
        MsgBox ("The " & userInput & " escaped!!!")
    End If
ElseIf partBcap = False Then ' If there's no hope of the pokeball capturing that power level,
automatic failure.
    MsgBox ("The " & userInput & " escaped!!!")
End If
'GoTo target
Decision:

'Pokestop, reward a random quantity to a specific pokeball
If userInput = "pokestop" Then
    MsgBox ("Welcome to the Pokestop!")
    randoStop = Int((8 - 1 + 1) * Rnd + 1) ' Generate random number of pokeballs to assign
    randoBalls = Int((3 - 1 + 1) * Rnd + 1) ' Generate random number to decide which kind of
pokeball to refill
    ' Refill pokeball type
    If randoBalls = 1 Then
        pokeStore1 = pokeStore1 + randoStop
        MsgBox ("You just got +" & randoStop & " type #1 pokeballs!")
    ElseIf randoBalls = 2 Then
        pokeStore2 = pokeStore2 + randoStop
        MsgBox ("You just got +" & randoStop & " type #2 pokeballs!")
    ElseIf randoBalls = 3 Then
        pokeStore3 = pokeStore3 + randoStop
        MsgBox ("You just got +" & randoStop & " type #3 pokeballs!")
    End If

End If

'Check for quantities of pokeballs, pokemon
If totalPoke = 10 Then
    MsgBox ("You captured 10 pokemon! Game over.")
    GoTo GameOver
End If

If pokeballStore = 0 Then
    MsgBox ("You're out of pokeballs! Game over.")
    GoTo GameOver
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         GoTo GameOver
      End If

      If pokeballStore = 0 Then
         MsgBox ("You're out of pokeballs! Game over.")
         GoTo GameOver
      End If

      'Warning for one pokeball of each type remaining
      If pokeStore1 = 1 Then
         MsgBox ("Warning: you only have one type #1 pokeball left!")
      End If
      If pokeStore2 = 1 Then
         MsgBox ("Warning: you only have one type #2 pokeball left!")
      End If
      If pokeStore3 = 1 Then
         MsgBox ("Warning: you only have one type #3 pokeball left!")
      End If

      'Warning for if user is out of pokeballs
      If pokeStore1 = 0 Then
         MsgBox ("Warning: you are out of type #1 pokeballs!")
      End If
      If pokeStore2 = 0 Then
         MsgBox ("Warning: you are out of type #2 pokeballs!")
      End If
      If pokeStore3 = 0 Then
         MsgBox ("Warning: you are out of type #3 pokeballs!")
      End If

      choice = MsgBox("Would you like to move to a different area?", vbYesNo) ' Replay condition
      that stays or breaks out of the loop

   Wend



   GameOver:
   'Report of game stats
   gameStats = MsgBox("Game Over. Here are your stats: " & vbCrLf & vbCrLf & "Type #1
   Pokeballs: " & pokeStore1 & vbCrLf & "Type #2 Pokeballs: " & pokeStore2 & _
   vbCrLf & "Type #3 Pokeballs: " & pokeStore3, vbOKOnly, "Game Over")


   gameStats = MsgBox("Here are the pokemon you kept: " & vbCrLf & LCase(capLedger),
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gameStats = MsgBox("Game Over! Here are your stats!" & vbCrLf & vbCrLf & "Type #1
Pokeballs: " & pokeStore1 & vbCrLf & "Type #2 Pokeballs: " & pokeStore2 & _

gameStats = MsgBox("Pokemon captured: " & CaptureOnly & vbCrLf & "Pokemon kept: " &
CaptureKeep, vbOKOnly, "Game Over")
gameStats = MsgBox("Here are the pokemon you kept: " & vbCrLf & LCase(capLedger),
vbOKOnly, "Game Over")


End Sub
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