Sub FixSSNITAccountNumbers\_Final()

Dim ws As Worksheet

Dim newWorkbook As Workbook

Dim newWs As Worksheet

Dim lastRow As Long, lastCol As Long

Dim i As Long, changes As Long

Dim ssnitDict As Object

Dim ssnit As String

Dim originalAccount As String

Dim folderPath As String

Dim originalFilePath As String

Dim newFilePath As String

Dim debugMsg As String

' Set paths - corrected to use STA folder

folderPath = "C:\Users\USER\Desktop\STA\"

originalFilePath = folderPath & "Member.xlsx"

' Open workbook

Application.ScreenUpdating = False

Application.DisplayAlerts = False ' Prevent prompts

On Error Resume Next

Workbooks.Open Filename:=originalFilePath

If Err.Number <> 0 Then

MsgBox "Could not open the workbook at: " & originalFilePath, vbCritical

Exit Sub

End If

On Error GoTo 0

Set ws = Workbooks("Member.xlsx").Sheets(1)

' Verify data structure

lastRow = ws.Cells(ws.Rows.Count, "B").End(xlUp).Row

lastCol = ws.Cells(1, ws.Columns.Count).End(xlToLeft).Column

' Initialize dictionary (case insensitive)

Set ssnitDict = CreateObject("Scripting.Dictionary")

ssnitDict.CompareMode = vbTextCompare

' FIRST PASS: Build dictionary of first account numbers

For i = 2 To lastRow

' Get SSNIT exactly as it appears (only clean for comparison)

ssnit = ws.Cells(i, "B").Value

originalAccount = CleanText(ws.Cells(i, "A").Value)

' Clean version for comparison only

Dim cleanSSNIT As String

cleanSSNIT = CleanText(ssnit)

If cleanSSNIT <> "" Then

If Not ssnitDict.exists(cleanSSNIT) Then

' Store both original SSNIT and account number

ssnitDict.Add cleanSSNIT, Array(ssnit, originalAccount)

debugMsg = debugMsg & "First for " & cleanSSNIT & ": " & originalAccount & vbCrLf

End If

End If

Next i

' SECOND PASS: Standardize account numbers (without changing SSNIT numbers)

changes = 0

For i = 2 To lastRow

ssnit = ws.Cells(i, "B").Value

Dim cleanCurrentSSNIT As String

cleanCurrentSSNIT = CleanText(ssnit)

If cleanCurrentSSNIT <> "" And ssnitDict.exists(cleanCurrentSSNIT) Then

' Only change account number if different

If CleanText(ws.Cells(i, "A").Value) <> ssnitDict(cleanCurrentSSNIT)(1) Then

debugMsg = debugMsg & "Row " & i & ": Changed account from " & ws.Cells(i, "A").Value & \_

" to " & ssnitDict(cleanCurrentSSNIT)(1) & " for SSNIT " & cleanCurrentSSNIT & vbCrLf

ws.Cells(i, "A").Value = ssnitDict(cleanCurrentSSNIT)(1)

changes = changes + 1

End If

' Ensure SSNIT remains unchanged (just in case)

ws.Cells(i, "B").Value = ssnit

End If

Next i

' Create cleaned file

Set newWorkbook = Workbooks.Add

Set newWs = newWorkbook.Sheets(1)

ws.UsedRange.Copy newWs.Range("A1")

' Save with timestamp in same folder

newFilePath = folderPath & "Member\_CLEANED\_" & Format(Now(), "yyyymmdd\_hhmmss") & ".xlsx"

newWorkbook.SaveAs newFilePath, FileFormat:=xlOpenXMLWorkbook

' Clean up

newWorkbook.Close False

Workbooks("Member.xlsx").Close False

Application.ScreenUpdating = True

Application.DisplayAlerts = True

' Show results

MsgBox "Process completed successfully!" & vbCrLf & \_

"Total rows processed: " & lastRow - 1 & vbCrLf & \_

"Unique SSNITs found: " & ssnitDict.Count & vbCrLf & \_

"Account numbers standardized: " & changes & vbCrLf & \_

"Saved to: " & newFilePath, vbInformation

' Optional: Create debug log if needed

'If debugMsg <> "" Then

' CreateTextFile folderPath & "SSNIT\_cleanup\_log.txt", debugMsg

'End If

End Sub

' Helper function to clean text (for comparison only)

Function CleanText(inputValue As Variant) As String

' Handle numbers, text, dates, etc.

If IsNull(inputValue) Or IsEmpty(inputValue) Then

CleanText = ""

ElseIf IsNumeric(inputValue) Then

CleanText = CStr(inputValue)

Else

CleanText = Trim(CStr(inputValue))

End If

' Remove non-printable characters and extra spaces

CleanText = Replace(CleanText, Chr(160), " ") ' Non-breaking space

CleanText = Application.Clean(CleanText)

CleanText = WorksheetFunction.Trim(CleanText)

End Function

' Helper to create log file (optional)

Sub CreateTextFile(filePath As String, content As String)

Dim fileNum As Integer

fileNum = FreeFile()

Open filePath For Output As #fileNum

Print #fileNum, content

Close #fileNum

End Sub