**Module 8 – Exercise 1 – Merge Customer Files**

**Programmer:** Jonathan Lee

Declare InputFile GeraldinesFile

Declare InputFile GeraldsFile

Declare OutputFile MergedCustomers

Open GeraldinesFile "Geraldines Businesses.csv" for reading

Open GeraldsFile "Geralds Businesses.csv" for reading

Open MergedCustomers "MergedBusinesses.csv" for writing

Read Record from GeraldinesFile into GeraldineRecord

Read Record from GeraldsFile into GeraldRecord

While NOT EOF GeraldinesFile AND NOT EOF GeraldsFile

If GeraldineRecord.name <= GeraldRecord.name Then

Write GeraldineRecord to MergedCustomers

Read next Record from GeraldinesFile into GeraldineRecord

Else

Write GeraldRecord to MergedCustomers

Read next Record from GeraldsFile into GeraldRecord

End If

End While

// Write remaining records from whichever file has leftovers

While NOT EOF GeraldinesFile

Write GeraldineRecord to MergedCustomers

Read next Record from GeraldinesFile into GeraldineRecord

End While

While NOT EOF GeraldsFile

Write GeraldRecord to MergedCustomers

Read next Record from GeraldsFile into GeraldRecord

End While

Close GeraldinesFile

Close GeraldsFile

Close MergedCustomers

**Geraldines Businesses.csv**

| **Name** | **Address** | **Balance** |
| --- | --- | --- |
| Amy | 123 Maple St | $250 |
| Carlos | 234 Birch St | $130 |
|  |  |  |

**Geralds Businesses.csv**

| **Name** | **Address** | **Balance** |
| --- | --- | --- |
| Bob | 345 Oak St | $175 |
| Dana | 456 Pine St | $95 |

**MergedBusinesses.csv (Expected Output)**

| **Name** | **Address** | **Balance** |
| --- | --- | --- |
| Amy | 123 Maple St | $250 |
| Bob | 345 Oak St | $175 |
| Carlos | 234 Birch St | $130 |
| Dana | 456 Pine St | $95 |
|  |  |  |

I verified my pseudocode by making up some customer files for Geraldine and Gerard in alphabetical order. I stepped through a manual pairwise comparison of names from each file, and I wrote the first into the merged list. The final output verified that the alphabetical order was maintained, both files were fully traversed, and that there were no missing or duplicate records.