CIS263AA Programming Assignment 10

Assignment Goal:

Reading and writing files is essential in business applications. Text files are often used to transfer data between organizations. Additionally, accessing files often involves a new set of problems. The file may not exist, may be corrupt, or may contain invalid data. Some of these problems may cause your program to abort.

Often, programmers must convert files from one format to another. For this assignment, you will convert a comma separated values file into a binary file. You will then read the converted file back to insure it converted successfully.

Assignment Specifications:

You will write a program called **ConvertEmployee** that reads the employee master file as a comma separated values file, and writes it as a binary file. The object class for Employee will be provided. For each record in the employee.csv file, display the employee’s number, name, pay type, and year-to-date fields. At the end of the program, display the count of the number of records read, and a total of each of the year-to-date fields.

Write a program called **VerifyEmployee** that reads the converted file, and displays the same line item data as well as final totals.

Deliverables (what you are to submit):

1. **Employee.csv** file control class planning document
   1. Methods
   2. Data items
   3. Sample output
2. **Employee.dat** file control class planning document
   1. Methods
   2. Data items
   3. Sample output
3. **ConvertEmployee** planning document
   1. Program Outline
   2. Methods
   3. Data items
   4. Sample output
   5. A set of test data with expected results.
4. **VerifyEmployee** planning document
   1. Program Outline
   2. Methods
   3. Data items
   4. Sample output
   5. A set of test data with expected results
5. Your complete project folder in zip format.

CIS263AA Programming Assignment 10 (Employee.csv File Control Class)

Name: \_\_\_\_\_\_Daniel Cender\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Methods:** < This is a list of methods you will define in your program. >

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Function** | **Access Modifier(1)** | **Method Name** | **Parameters (dataType identifier)** | **Return Type (2)** |
| FileEmployeeCSV | public | FileEmployeeCSV() | none | none |
| FileEmployeeCSV | public | FileEmployeeCSV() | String fileName | none |
| Open Read | public | openRead() | none | boolean |
| Open Append | public | openAppend() | none | Boolean |
| Open Output | public | openOutput() | none | Boolean |
| Close | public | close() | none | Boolean |
| Read Record | public | readRecord() | none | boolean |
| Write Record | public | writeRecord() | none | Boolean |

1. Access Modifier: local, public, private, protected

2. Return Type: void, string, char, byte, short, integer, long, double, float, boolean, object, etc.

**Data Items:** < This is a list of fields (variables, constants, and objects you will need. >

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Data Item** | **Source (1)** | **Access Modifier (2)** | **Data Type (3)** | **Identifier** | **Notes** |
| Employee Clas | instance | public | Employee | data |  |
| Reader | instance | private | BufferedReader | reader |  |
| Writer | Instance | private | PrintWriter | writer |  |
| File Name | Input | private | String | fileName |  |
| File class | input | private | File | file |  |
| Is EOF | calculated | public | boolean | isEOF |  |
| Is Open | calculated | public | boolean | isOpen |  |
| Succeeded | calculated | local | boolean | succeeded |  |
| Input String | input | local | String | inputLine |  |

1. Source (where the data comes from): calculated, input, constant, parameter, instance, object

2. Access Modifier: local, public, private, protected

3. Data Type: string, char, byte, short, integer, long, double, float, boolean, object, etc.

**Sample Output:** < What will the user see? >

No inherent output for this class.

**Test Data: Note: Testing file control class is usually done by a separate program and would include testing each method to insure it works properly. We will use the ConvertEmployee program to test this class.**

CIS263AA Programming Assignment 10 (Employee.dat File Control Class)

Name: \_\_\_\_\_\_Daniel Cender\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Methods:** < This is a list of methods you will define in your program. >

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Function** | **Access Modifier(1)** | **Method Name** | **Parameters (dataType identifier)** | **Return Type (2)** |
| Main method: | public static | main() |  | void |
| Open Read | public | openRead() |  | Boolean |
| Open Append | public | openAppend() |  | Boolean |
| Open Output | public | openOutput() |  | Boolean |
| Close | public | close() |  | Boolean |
| Read Record | public | readRecord() |  | Boolean |
| Write | public | write() |  | boolean |

1. Access Modifier: local, public, private, protected

2. Return Type: void, string, char, byte, short, integer, long, double, float, boolean, object, etc.

**Data Items:** < This is a list of fields (variables, constants, and objects you will need. >

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Data Item** | **Source (1)** | **Access Modifier (2)** | **Data Type (3)** | **Identifier** | **Notes** |
| Employee Class | instance | public | Employee | data |  |
| Binary Reader | instance | private | DataInputStream | reader |  |
| Binary Writer | instance | private | DataOutputStream | writer |  |
| File Class | instance | private | File | file |  |
| File Name | input | public | String | filename |  |
| File Is Opened | calculated | public | Boolean | isOpen |  |
| End of File | calculated | public | boolean | isEOF |  |
| Success Flag | calculated | public | boolean | succeeded |  |

1. Source (where the data comes from): calculated, input, constant, parameter, instance, object

2. Access Modifier: local, public, private, protected

3. Data Type: string, char, byte, short, integer, long, double, float, boolean, object, etc.

**Sample Output:** < What will the user see? >

**Test Data: Note: Testing file control class is usually done by a separate program and would include testing each method to insure it works properly. We will use the ConvertEmployee program to test this class.**

CIS263AA Programming Assignment 10 (ConvertEmployee)

Name: \_\_\_\_\_Daniel Cender\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Program Outline:** < This is an outline of what your program is to do. Be detailed. >

Open Employee.csv file

Display File contents

Translate file contents to BInary file

Close files

**Methods:** < This is a list of methods you will define in your program. >

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Function** | **Access Modifier(1)** | **Method Name** | **Parameters (dataType identifier)** | **Return Type (2)** |
| Main method: | public static | main() |  | void |
| Startup | public | startup() |  | void |
| Processing | public | processing() |  | void |
| Shutdown | public | shutdown() |  | void |
| Display Employee Data | public | displayEmployeeData() |  | void |
| Display Totals | public | displayTotals() |  | void |
| Display Heading | public | displayHeading() |  | void |
| Add To Totals | public | addToTotals() |  | void |

1. Access Modifier: local, public, private, protected

2. Return Type: void, string, char, byte, short, integer, long, double, float, boolean, object, etc.

**Data Items:** < This is a list of fields (variables, constants, and objects you will need. >

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Data Item** | **Source (1)** | **Access Modifier (2)** | **Data Type (3)** | **Identifier** | **Notes** |
| Employee Class | Instance | private | Employee |  |  |
| Input File | Instance | private | FileEmployeeCSV | fileInput |  |
| Output File | Instance | private | FileEmployeeBIN | fileOutput |  |
| Record Counter | calculated | private | integer | recordCount |  |
| Gross Earn Total | calculated | private | float | ytdGrossEarnTotal |  |
| Fed Tax Total | calculated | private | float | ytdFedTaxesTotal |  |
| Social Tax Total | calculated | private | float | ytdSocSecTaxesTotal |  |
| Medicare Tax Total | calculated | private | float | ytdMedicareTaxesTotal |  |
| State Tax Total | calculated | private | float | ytdStateTaxesTotal |  |
| Deductions Total | calculated | private | float | ytdDeductionsTotal |  |

1. Source (where the data comes from): calculated, input, constant, parameter, instance, object

2. Access Modifier: local, public, private, protected

3. Data Type: string, char, byte, short, integer, long, double, float, boolean, object, etc.

**Sample Output:** < What will the user see? >

Employee Nbr Department Last Name First Name Pay Type Hourly Rate Tax Marital Status Nbr Exemptions State Withhold Percentage Gross Earnings YTD Fed Taxes YTD Social Sec. Taxes YTD Medicare Taxes YTD State Taxes YTD Deductions Deduct Code 1 Code 1 Value Deduct Code 2 Code 2 Value Deduct Code 3 Code 3 Value

10100 100 Williams Mary H 12.750000.2 M 2 0.0270 19890.00 879.00 1233.18 288.41 131.85 208.75 Deduction 0 code: P Deduction 0 value: 0.0500 Deduction 1 code: F Deduction 1 value: 20.0000 Deduction 2 code: P Deduction 2 value: 0.0750

10105 110 Anderson Lou H 13.260000.2 M 4 0.0360 20685.60 448.56 1282.51 299.94 103.17 305.20 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: P Deduction 1 value: 0.0500 Deduction 2 code: F Deduction 2 value: 33.7500

10110 115 Bentley Tim S 15.750000.2 S 0 0.0360 24570.00 3107.25 1523.34 356.27 310.73 355.00 Deduction 0 code: F Deduction 0 value: 50.0000 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: F Deduction 2 value: 27.5000

10115 120 Rogers Ann H 11.320000.2 M 3 0.0270 17659.20 400.92 1094.87 256.06 92.21 452.50 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: F Deduction 1 value: 45.5000 Deduction 2 code: P Deduction 2 value: 0.0850

10120 125 Calloway Paul H 8.500000.2 S 1 0.0180 13260.00 1410.75 822.12 192.27 352.69 500.00 Deduction 0 code: P Deduction 0 value: 0.0500 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: N Deduction 2 value: 0.0000

10125 100 Martinez Richard H 9.750000.2 S 0 0.0180 15210.00 1703.25 943.02 220.55 255.49 255.63 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: P Deduction 1 value: 0.0600 Deduction 2 code: P Deduction 2 value: 0.0450

10130 110 Wilson Andrew H 16.840000.2 M 2 0.0360 26270.40 1699.94 1628.76 380.92 254.99 350.00 Deduction 0 code: F Deduction 0 value: 33.0000 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: N Deduction 2 value: 0.0000

10135 115 Jones Bill H 12.640000.2 S 2 0.0270 19718.40 1614.51 1222.54 285.92 371.34 375.00 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: F Deduction 1 value: 12.5000 Deduction 2 code: F Deduction 2 value: 23.5000

10140 120 Thomas Anita S 19.770000.2 S 1 0.0420 30841.20 3980.55 1912.15 447.20 796.11 2500.00 Deduction 0 code: P Deduction 0 value: 0.0750 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: N Deduction 2 value: 0.0000

10145 125 Davenport Clarance H 14.530000.2 M 0 0.0360 22666.80 1924.40 1405.34 328.67 288.66 0.00 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: N Deduction 2 value: 0.0000

10150 100 Hill Cathy H 12.670000.2 M 2 0.0270 19765.20 866.52 1225.44 286.60 216.63 825.00 Deduction 0 code: F Deduction 0 value: 58.0000 Deduction 1 code: P Deduction 1 value: 0.0750 Deduction 2 code: F Deduction 2 value: 19.7500

10155 110 Lowery Larry H 8.660000.2 S 1 0.0180 13509.60 1065.69 837.60 195.89 245.11 489.00 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: P Deduction 2 value: 0.0750

10160 115 Nelson Sam H 9.460000.2 S 1 0.0180 14757.60 1252.89 914.97 213.99 187.93 504.25 Deduction 0 code: P Deduction 0 value: 0.0500 Deduction 1 code: F Deduction 1 value: 0.0000 Deduction 2 code: N Deduction 2 value: 0.0000

10165 120 Gale Joyce S 17.750000.2 M 5 0.0420 27690.00 894.00 1716.78 401.51 178.80 1526.00 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: F Deduction 2 value: 97.5000

10170 125 Harris Howard H 11.220000.2 S 1 0.0270 17503.20 1664.73 1085.20 253.80 332.95 288.50 Deduction 0 code: F Deduction 0 value: 12.5000 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: N Deduction 2 value: 0.0000

10175 100 McDonald Meridth H 8.990000.2 M 3 0.0180 14024.40 35.19 869.51 203.35 8.09 1420.00 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: P Deduction 1 value: 0.0800 Deduction 2 code: P Deduction 2 value: 0.0500

10180 110 Arnez Denny H 9.320000.2 S 2 0.0180 14539.20 837.63 901.43 210.82 125.64 453.75 Deduction 0 code: P Deduction 0 value: 0.0400 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: N Deduction 2 value: 0.0000

10185 115 Thompson Paula H 12.880000.2 S 0 0.0270 20092.80 2435.67 1245.75 291.35 487.13 625.00 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: F Deduction 2 value: 27.5000

10190 120 Kinder Kevin S 16.910000.2 M 0 0.0420 26379.60 2481.32 1635.54 382.50 496.26 2600.00 Deduction 0 code: F Deduction 0 value: 73.5200 Deduction 1 code: F Deduction 1 value: 27.5000 Deduction 2 code: P Deduction 2 value: 0.0750

10195 125 Brown Judy H 11.330000.2 S 1 0.0270 17674.80 1690.47 1095.84 256.28 253.57 0.00 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: N Deduction 2 value: 0.0000

10200 100 Johnson Jay H 10.500000.2 M 2 0.0270 16380.00 528.00 1015.56 237.51 121.44 825.00 Deduction 0 code: P Deduction 0 value: 0.0500 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: N Deduction 2 value: 0.0000

10300 100 Boss Bigg S 62.330002.2 M 4 0.0510 97234.80 14980.58 6028.56 1409.90 2996.12 4025.00 Deduction 0 code: P Deduction 0 value: 0.0750 Deduction 1 code: F Deduction 1 value: 63.5000 Deduction 2 code: F Deduction 2 value: 22.5000

10310 100 Boss Lil S 55.779999.2 S 2 0.0510 87016.80 18110.27 5395.04 1261.74 4165.36 3397.25 Deduction 0 code: F Deduction 0 value: 18.5000 Deduction 1 code: P Deduction 1 value: 0.1000 Deduction 2 code: P Deduction 2 value: 0.0750

YTD Gross Earnings Total: 597339.6

YTD Federal Taxes Total: 64012.09

YTD Social Security Taxes Total: 37035.06

YTD Medicare Taxes Total: 8661.449

YTD State Taxes Total: 12772.27

YTD Deductions total: 667.755

Total Records Read: 23

**Test Data:**

< How will you prove your program works? >

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Identifier** | Case 1 | Case 2 | Case 3 | Case 4 |
| ytdGrossEarnTotal | 597339.6 |  |  |  |
| ytdFedTaxesTotal | 64021.09 |  |  |  |
| ytdSocSecTaxesTotal | 37035.06 |  |  |  |
| ytdMedicareTaxesTotal | 8661.449 |  |  |  |
| ytdStateTaxesTotal | 12772.27 |  |  |  |
| ytdDeductionsTotal | 667.755 |  |  |  |
| recordCount | 23 |  |  |  |

Note: You made more or fewer test cases depending on your application.

CIS263AA Programming Assignment 10 (VerifyEmployee)

Name: \_\_\_Daniel Cender\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Program Outline:** < This is an outline of what your program is to do. Be detailed. >

Open Employee.bin file

Translate file to CSV format

Display file contents

Close both files

**Methods:** < This is a list of methods you will define in your program. >

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Function** | **Access Modifier(1)** | **Method Name** | **Parameters (dataType identifier)** | **Return Type (2)** |
| Main method: | public static | main() |  | void |
| Startup | public | startup() |  | void |
| Processing | public | processing() |  | void |
| Shutdown | public | shutdown() |  | void |
| Display Employee Data | public | displayEmployeeData() |  | void |
| Display Totals | public | displayTotals() |  | void |
| Display Heading | public | displayHeading() |  | void |
| Add To Totals | public | addToTotals() |  | void |

1. Access Modifier: local, public, private, protected

2. Return Type: void, string, char, byte, short, integer, long, double, float, boolean, object, etc.

**Data Items:** < This is a list of fields (variables, constants, and objects you will need. >

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Data Item** | **Source (1)** | **Access Modifier (2)** | **Data Type (3)** | **Identifier** | **Notes** |
| Employee Class | Instance | private | Employee |  |  |
| Input File | Instance | private | FileEmployeeBIN | fileInput |  |
| Output File | Instance | private | FileEmployeeCSV | fileOutput |  |
| Record Counter | calculated | private | integer | recordCount |  |
| Gross Earn Total | calculated | private | float | ytdGrossEarnTotal |  |
| Fed Tax Total | calculated | private | float | ytdFedTaxesTotal |  |
| Social Tax Total | calculated | private | float | ytdSocSecTaxesTotal |  |
| Medicare Tax Total | calculated | private | float | ytdMedicareTaxesTotal |  |
| State Tax Total | calculated | private | float | ytdStateTaxesTotal |  |
| Deductions Total | calculated | private | float | ytdDeductionsTotal |  |

1. Source (where the data comes from): calculated, input, constant, parameter, instance, object

2. Access Modifier: local, public, private, protected

3. Data Type: string, char, byte, short, integer, long, double, float, boolean, object, etc.

**Sample Output:** < What will the user see? >

Employee Nbr Department Last Name First Name Pay Type Hourly Rate Tax Marital Status Nbr Exemptions State Withhold Percentage Gross Earnings YTD Fed Taxes YTD Social Sec. Taxes YTD Medicare Taxes YTD State Taxes YTD Deductions Deduct Code 1 Code 1 Value Deduct Code 2 Code 2 Value Deduct Code 3 Code 3 Value

10100 100 Williams Mary H 12.750000.2 M 2 0.0270 19890.00 879.00 1233.18 288.41 131.85 208.75 Deduction 0 code: P Deduction 0 value: 0.0500 Deduction 1 code: F Deduction 1 value: 20.0000 Deduction 2 code: P Deduction 2 value: 0.0750

10105 110 Anderson Lou H 13.260000.2 M 4 0.0360 20685.60 448.56 1282.51 299.94 103.17 305.20 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: P Deduction 1 value: 0.0500 Deduction 2 code: F Deduction 2 value: 33.7500

10110 115 Bentley Tim S 15.750000.2 S 0 0.0360 24570.00 3107.25 1523.34 356.27 310.73 355.00 Deduction 0 code: F Deduction 0 value: 50.0000 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: F Deduction 2 value: 27.5000

10115 120 Rogers Ann H 11.320000.2 M 3 0.0270 17659.20 400.92 1094.87 256.06 92.21 452.50 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: F Deduction 1 value: 45.5000 Deduction 2 code: P Deduction 2 value: 0.0850

10120 125 Calloway Paul H 8.500000.2 S 1 0.0180 13260.00 1410.75 822.12 192.27 352.69 500.00 Deduction 0 code: P Deduction 0 value: 0.0500 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: N Deduction 2 value: 0.0000

10125 100 Martinez Richard H 9.750000.2 S 0 0.0180 15210.00 1703.25 943.02 220.55 255.49 255.63 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: P Deduction 1 value: 0.0600 Deduction 2 code: P Deduction 2 value: 0.0450

10130 110 Wilson Andrew H 16.840000.2 M 2 0.0360 26270.40 1699.94 1628.76 380.92 254.99 350.00 Deduction 0 code: F Deduction 0 value: 33.0000 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: N Deduction 2 value: 0.0000

10135 115 Jones Bill H 12.640000.2 S 2 0.0270 19718.40 1614.51 1222.54 285.92 371.34 375.00 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: F Deduction 1 value: 12.5000 Deduction 2 code: F Deduction 2 value: 23.5000

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10145 125 Davenport Clarance H 14.530000.2 M 0 0.0360 22666.80 1924.40 1405.34 328.67 288.66 0.00 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: N Deduction 2 value: 0.0000

10150 100 Hill Cathy H 12.670000.2 M 2 0.0270 19765.20 866.52 1225.44 286.60 216.63 825.00 Deduction 0 code: F Deduction 0 value: 58.0000 Deduction 1 code: P Deduction 1 value: 0.0750 Deduction 2 code: F Deduction 2 value: 19.7500

10155 110 Lowery Larry H 8.660000.2 S 1 0.0180 13509.60 1065.69 837.60 195.89 245.11 489.00 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: P Deduction 2 value: 0.0750

10160 115 Nelson Sam H 9.460000.2 S 1 0.0180 14757.60 1252.89 914.97 213.99 187.93 504.25 Deduction 0 code: P Deduction 0 value: 0.0500 Deduction 1 code: F Deduction 1 value: 0.0000 Deduction 2 code: N Deduction 2 value: 0.0000

10165 120 Gale Joyce S 17.750000.2 M 5 0.0420 27690.00 894.00 1716.78 401.51 178.80 1526.00 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: F Deduction 2 value: 97.5000

10170 125 Harris Howard H 11.220000.2 S 1 0.0270 17503.20 1664.73 1085.20 253.80 332.95 288.50 Deduction 0 code: F Deduction 0 value: 12.5000 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: N Deduction 2 value: 0.0000

10175 100 McDonald Meridth H 8.990000.2 M 3 0.0180 14024.40 35.19 869.51 203.35 8.09 1420.00 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: P Deduction 1 value: 0.0800 Deduction 2 code: P Deduction 2 value: 0.0500

10180 110 Arnez Denny H 9.320000.2 S 2 0.0180 14539.20 837.63 901.43 210.82 125.64 453.75 Deduction 0 code: P Deduction 0 value: 0.0400 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: N Deduction 2 value: 0.0000

10185 115 Thompson Paula H 12.880000.2 S 0 0.0270 20092.80 2435.67 1245.75 291.35 487.13 625.00 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: F Deduction 2 value: 27.5000

10190 120 Kinder Kevin S 16.910000.2 M 0 0.0420 26379.60 2481.32 1635.54 382.50 496.26 2600.00 Deduction 0 code: F Deduction 0 value: 73.5200 Deduction 1 code: F Deduction 1 value: 27.5000 Deduction 2 code: P Deduction 2 value: 0.0750

10195 125 Brown Judy H 11.330000.2 S 1 0.0270 17674.80 1690.47 1095.84 256.28 253.57 0.00 Deduction 0 code: N Deduction 0 value: 0.0000 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: N Deduction 2 value: 0.0000

10200 100 Johnson Jay H 10.500000.2 M 2 0.0270 16380.00 528.00 1015.56 237.51 121.44 825.00 Deduction 0 code: P Deduction 0 value: 0.0500 Deduction 1 code: N Deduction 1 value: 0.0000 Deduction 2 code: N Deduction 2 value: 0.0000

10300 100 Boss Bigg S 62.330002.2 M 4 0.0510 97234.80 14980.58 6028.56 1409.90 2996.12 4025.00 Deduction 0 code: P Deduction 0 value: 0.0750 Deduction 1 code: F Deduction 1 value: 63.5000 Deduction 2 code: F Deduction 2 value: 22.5000

10310 100 Boss Lil S 55.779999.2 S 2 0.0510 87016.80 18110.27 5395.04 1261.74 4165.36 3397.25 Deduction 0 code: F Deduction 0 value: 18.5000 Deduction 1 code: P Deduction 1 value: 0.1000 Deduction 2 code: P Deduction 2 value: 0.0750

YTD Gross Earnings Total: 597339.6

YTD Federal Taxes Total: 64012.09

YTD Social Security Taxes Total: 37035.06

YTD Medicare Taxes Total: 8661.449

YTD State Taxes Total: 12772.27

YTD Deductions total: 667.755

Total Records Read: 23

**Test Data:**

< How will you prove your program works? >

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Identifier** | Case 1 | Case 2 | Case 3 | Case 4 |
| ytdGrossEarnTotal | 597339.6 |  |  |  |
| ytdFedTaxesTotal | 64021.09 |  |  |  |
| ytdSocSecTaxesTotal | 37035.06 |  |  |  |
| ytdMedicareTaxesTotal | 8661.449 |  |  |  |
| ytdStateTaxesTotal | 12772.27 |  |  |  |
| ytdDeductionsTotal | 667.755 |  |  |  |
| recordCount | 23 |  |  |  |

Note: You made more or fewer test cases depending on your application.