CIST 1305 Program Design and Development

FINAL INDIVIDUAL PROJECT

Employee Data Application (100 points)

Program 1) A small company is moving all its employee data to a computer. To make a smooth transition, a software program will permit the data entry personnel to enter data into a file. Design a program that writes the *employees.dat* file. The program should accept user input until the user indicates there are no more records to write. The Employees file contains four fields (see the Input File Description). The program will use the employee ID as criteria to determine a current employee. Validate the employee ID and employee wage fields per the requirements below. You may use any of the library functions presented in Chapter 6 of the textbook to assist in validation. Your validation routines should include error messages and allow the user to correct an input error. Use an array to hold the valid ID numbers. The Input File Description is the same for both programs.

Process: The user has a stack of employee files from over 25 years of being in business. There are more files than current employees. The user should enter an ID number and, if the ID is valid, continue to enter the rest of that employee's data. If the ID is not valid, then the user moves on to the next file. The program must support this process. No data should be entered for an employee that does not have an ID found in the system (below).

Program assumptions:

Employee ID: May not be more than 10 characters long. The number must exist in the list of valid employee ID's.
Valid ID Numbers: RE49762358, PR156125, OF45461, RE68566547, PR156984
Employee Wage: The number may not be zero nor larger than $45.50.

Program 2) Design a program that reads the contents of the *employees.dat* file and prints all the data within it. Format the report as designated in the Printer Spacing Chart below. The last name should print first followed by a comma, and then the first name. On the same line, the ID number should appear separated from the name by a few blank spaces (you may use TAB). Add more white space before displaying the employee's wage. Use the EOF function to determine when the last record has been read.

Deliverables: Design the logic for both programs and submit using a Raptor flowchart. Submit all other appropriate documentation to complete these applications (hierarchy chart, internal documentation). Include program analysis Work Sheet for both programs.

Input File Description:

File: employees.dat

Field Description	Data Type
Employee first name	String
Employee last name	String
Employee ID #	String
Employee Hourly Wage	Real (2 decimal places)

Output Report - Printer Spacing Chart:

GTC1305 Company
Employee Report

Employee Name	Identification Number	Wage
XXXXXXXXXX, XXXXXXX	XXXXXXXXXX	$Z9.99

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PROGRAM ANALYSIS WORKSHEET

NAME: _____ DATE: _____

PROGRAM DESCRIPTION:

SOFTWARE (PROGRAM) REQUIREMENTS:

INPUT	PROCESS	OUTPUT

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