

**CS 140- Final Project: 1**

Write a program that allows the user to do a payroll listing on any number of employees, up to a maximum of 20, for a one week period. This program must be written using arrays and functions. The program is to be broken into various tasks; each task will be coded as a function. Each function will be passed arguments and will return a value or values back from the function. Several arrays will be used in the program, no array will exceed 20 elements. One array will hold the employee numbers that are input. Other arrays will hold the Computed Gross Pay، الراتب، Computed governmental Tax and Computed Net Pay values (taxes value subtracted from the computed gross pay). When the user indicates he/she wishes to stop the input of employee data, the program will display a list of employee numbers, and the corresponding computed values, plus a total for each of the computed values.

The following shows a sample run of the program with user inputs in **boldface**.

```
Main Menu

1- Add New Employee Payroll Information
2- Edit Employee Payroll Information
3- Search for Employee Payroll Information
4- Print Employee Payroll Roster

Enter your selection:  1
```

1. **When the user enter 1** as a selection the following screen should appear:

```
Add Employee Payroll Information
-----
Enter Employee Number           : 123-45-6789
Enter Regular Hours Worked      : 40
Enter Overtime Hours Worked     : 0.75
Enter Hourly Pay Rate           : 15.00
Enter Marital Status (M or S)   : M
Enter number of children (0-4)  : 2
Computed Gross Pay              : SR 616.88
Computed governmental Tax       : -SR 24.67
```

```
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Computed Net Pay                      : SR 592.21

Do you wish to do another(Y/N)? Y

Enter Employee Number                : 234-56-7890
Enter Regular Hours Worked           : 40
Enter Overtime Hours Worked          : 3.50
Enter Hourly Pay Rate                : 20.00
Enter Marital Status (M or S)        : S
Enter number of children (0-4)       : 0
Computed Gross Pay                   : SR 905.00
Computed governmental Tax            : -SR 181.00
-----
Computed Net Pay                      : SR 724.00

Do you wish to do another(Y/N)? N
```

When the user type N, the main menu should be displayed on the screen

1. Employee Number is declared as a variable and assigned a value by the user as each employee's data is processed.
2. Regular Hours Worked is declared as a variable and is input by the user as each employee's data is processed.
3. Overtime Hours Worked is declared as a variable and is input by the user as each employee's data is processed.
4. Hourly Pay Rate is declared as a variable and is input by the user as each employee's data is processed. Float Data.
5. Marital Status is declared as a variable and is input by the user as each employee's data is processed. Only M or S may be input.
6. Gross Pay is a computed value derived from Regular Hours Worked multiplied by Hourly Pay Rate plus Overtime Hours Worked multiplied by the product of Hourly Pay Rate multiplied by 1.5.

Deductions are a computed value to indicate the amount of tax deductions, governmental taxes, needed to be subtracted from the Gross Pay.

**For Married Employees:**

Gov taxes = (10% of Gross income) - (number of Childs \* 1.5% of gross income)

**For Single Employees:**

Gov taxes = (20% of Gross income)

Net Pay is a computed amount showing the take home or net pay for the employee. Net Pay is computed by subtracting Deductions from Gross Pay. When all employees' payroll data has been processed, display the totals for gross pay, deductions and net pay. Each numeric value displayed on the screen should be formatted using output formatting code. After the user enters each value, rewrite it to the screen in proper format so that all entries will be aligned in columns.

2. **When the user enter 2** as a selection the following screens should appear:

Main Menu

- 1- Add New Employee Payroll Information
- 2- Edit Employee Payroll Information
- 3- Search for Employee Payroll Information
- 4- Print Employee Payroll Roster
- 5- Exit

Enter your selection: **2**

After selecting 2 the following screen should appear:

Edit Employee Payroll Information

-----

Enter the Employee Number: **234-56-7890**

|                                     |   |                    |
|-------------------------------------|---|--------------------|
| Enter Employee Number (234-56-7890) | : | <b>234-56-7891</b> |
| Enter Regular Hours Worked (40)     | : | <b>40</b>          |
| Enter Overtime Hours Worked (3.50)  | : | <b>3.50</b>        |

|                                    |              |
|------------------------------------|--------------|
| Enter Hourly Pay Rate (20.00)      | : 20.00      |
| Enter Marital Status (M or S) (S)  | : S          |
| Enter number of children (0-4) (0) | : 0          |
| Computed Gross Pay                 | : SR 905.00  |
| Computed governmental Tax          | : -SR 181.00 |
|                                    | -----        |
| Computed Net Pay                   | : SR 724.00  |

Do you wish to do another (Y/N)? **N**

3. **When the user enter 3** as a selection the following screens should appear:

Main Menu

1- Add New Employee Payroll Information  
2- Edit Employee Payroll Information  
3- Search for Employee Payroll Information  
4- Print Employee Payroll Roster  
5- Exit

Enter your selection: **3**

After selecting 3 the following screen should appear:

Search for Employee Payroll Information

-----

Employee Number: 234-56-7890

|                                |               |
|--------------------------------|---------------|
| Enter Employee Number          | : 234-56-7891 |
| Enter Regular Hours Worked     | : 40          |
| Enter Overtime Hours Worked    | : 3.50        |
| Enter Hourly Pay Rate          | : 20.00       |
| Enter Marital Status (M or S)  | : S           |
| Enter number of children (0-4) | : 0           |
| Computed Gross Pay             | : SR 905.00   |
| Computed governmental Tax      | : -SR 181.00  |
|                                | -----         |
| Computed Net Pay               | : SR 724.00   |

Do you wish to do another (Y/N)? **N**

4. **When the user enter 4** as a selection the following screens should appear:

Main Menu

- 1- Add New Employee Payroll Information
- 2- Edit Employee Payroll Information
- 3- Search for Employee Payroll Information
- 4- Print Employee Payroll Roster
- 5- Exit

Enter your selection: **4**

After selecting 4 the following screen should appear:

Print Employee Payroll Roster

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Employee Payroll Roster

| Employee<br>Number | Gross<br>Pay | gov.<br>Tax | Net<br>Pay |
|--------------------|--------------|-------------|------------|
| -----              | -----        | -----       | -----      |
| 123-45-6789        | SR 616.88    | SR 24.67    | SR 592.21  |
| 234-56-7890        | SR 905.00    | SR 181.00   | SR 724.50  |
|                    | -----        | -----       | -----      |
| Totals             | SR 1521.88   | SR 205.67   | SR 1253.71 |

Do you wish to go to the main menu (Y/N)? **Y**

5. **When the user enter 5** the program End.