Pay Calculator Program

For this assignment I was tasked to develop a Java program to quickly calculate an employee’s weekly gross and net pay. I began my work on this assignment by reading some information on how to begin a project in Java. In a previous assignment I created a simple program that would output “My name is Travis”. The previous assignment gave me a good starting point on how to create a package, class, and how to get my code into a source file to use with Java.

This assignment I had to first import the java.util package. Java.util package contains different frameworks that can be used. For this assignment I imported java.util so I could use the Scanner tool. The scanner class is used to get input from the user in the program. In this assignment I needed scanner to get input from the user which was employee name, hours worked and rate of pay.

After importing my package, I proceeded to begin my main class. The main class is the entry point of the application. This is where the application begins to work. I first initiated the Scanner tool with keyboard as a name, and system.in as the argument which is to read the input from the user. I followed that with imitating all of my variables. Java is statically typed so I had to let the complier know what type each of my variables will be. The only string, I would use was employee and the rest of my variables were initially “doubles”. Doubles are decimal floating-point numbers, which I wanted to be able to calculate percentages of deductions later in my program.

I then proceeded to user System.out.prinln which prints strings(words) to the console. I printed the prompt for the user to enter the employee’s information. I then used the Scanner methods for the scanner to read the input from the user. The scanner needed to be told what I wanted it to read from the user and I needed to be specific to the type I wanted it to read and the order I wanted it to read the input. This was used to set variables for later use in my program for calculations.

To begin my calculations, I used conditional statements such as if and else which decides on what to do depending on the input or output. The hours worked and overtime hours calculated a different gross pay. The conditional statements helped calculate the extra pay the employee would receive for hours over 40 hours worked.

I then needed to set the rates of each deduction by name for later use. The percentages I was given were converted to decimal to make it easier to calculate later with the gross pay deduction numbers. With each deduction I named each a variable name for later use. After entering all of my variables for my calculations, I proceeded to get the output I wanted from the system based on the input and calculations done. The output is done using System.out.println() with the arguments in parentheses.

During the process of inputting what I wanted the system to output, I wanted to make sure the output presented itself with specific decimal places. To do this before the output is given, I needed to use the string formatting feature. Using the string formatting feature, I set my rate of pay, gross pay, total deductions and net pay to out put to two decimal places. This gave me the correct output I was looking for when money was involved.

I enjoyed this assignment and it helped me learn more about some basic Java features. Being able to present a program using the features I have read about was a great feeling. Below I have screenshots of my written program and the output of the hypothetical employees that I was given for this assignment.

A screenshot of a social media post

Description automatically generatedA screenshot of a social media post

Description automatically generatedA close up of a logo

Description automatically generatedA close up of a logo

Description automatically generatedA screenshot of a cell phone

Description automatically generated