

Lab 6

Five-Babbage Burgers and Fries

Objective:

To write a program which utilizes:

- a for loop
- a summing variable
- appropriate output formatting

Assignment:

Employees at Five-Babbage Burgers and Fries are paid \$7.72 per hour. Of each employee's paycheck, 33% is withheld for Uncle Sam (this is not exactly the same as 1/3). Write a program that asks the user how many hours they worked and responds with the user's take-home pay for the week.

Next, modify the program so that it asks the user how many weeks are in the given pay-period, followed by that number of hourly inputs. The program should print the take-home pay for each of the weeks, then display the total for the month. Finding the total will require summing the weekly pay each time you go through the loop. Remember the total is zero to begin with.

Also make the program output an appropriate message at the end of its run. Output must look exactly as you see it below, including spacing. You may find the *Loop* reference document helpful.

Sample Run:

```
How many weeks in this pay period?  5

How many hours did you work this week?  37
Your take-home pay is $191.38

How many hours did you work this week?  41
Your take-home pay is $212.07

How many hours did you work this week?  29
Your take-home pay is $150.00

How many hours did you work this week?  40
Your take-home pay is $206.90

How many hours did you work this week?  38
Your take-home pay is $196.55

Your total pay for the month is $956.90
Hope you enjoy working at Babbage Burgers.
```

Note: Your total pay may not add precisely to the total of the individual weeks due to rounding errors.

Hint:

To format a variable (such as the paycheck values in this program) to two decimal places, include the header file `iomanip` and use these cout class manipulators:

```
cout << setiosflags(ios_base::fixed)           // do not use E notation
      << setiosflags(ios_base::showpoint)      // always show decimal point
      << setprecision(2);                     // rounded to 2 decimal places
```

Placing the above code at the beginning of your program, inside `int main()`, forces the formatting to occur throughout the running of your program.

Note: Baggage Burgers is named after the famous computer scientist Charles Babbage.