

CS 111 – Recitation 8

Exercise 1: Objects

You're given a class **Employee** that represents a worker in some unknown industry. Each employee has a **name**, **balance** and an hourly **rate** that is unique to them. So Worker1 can have a rate of \$5 per hour and Worker2 can have \$8 per hour.

There are **2 constructors** – one that lets you specify the name, a starting balance and the rate, and another that only lets you specify the name and rate and defaults the balance to 0.

There are 3 methods for the Employee class – a **“work(int hours)”** method that adds money to that worker's balance, a **“spend (double money)”** method, and a **“printInfo()”** method which prints that workers name, rate, and balance.

Now write a new program (**EmployeeDriver**) that creates 3 workers, assigns them to work a few shifts, spend some of their money, then prints out the information for each worker. Make use of all of the constructors and instance variables and methods available in the Employee class.

As an extra challenge, you can prompt the user to create a “custom” Employee by asking for name, starting rate, etc, and storing these in an array.

Example run: (not all methods are used in this example)

```
java Employee
creating employees...
Employee name is Bob, rate is 50, balance is 3000
Employee name is Rob, rate is 20 , balance is 1000
Employee name is Tom, rate is 10, balance is 0
working employees a few hours...
Employee name is Bob, rate is 50, balance is 3500
Employee name is Rob, rate is 20, balance is 1400
Employee name is Tom, rate is 10, balance is 300
All done, going home!
```

Exercise 2: Arrays & Strings

Write a method that will take a string and separate the characters in the string into an array. So if the user enters “Puppies,” create an array of length 7 with “P” at index 0, “u” at index 1, and so on. With this array, reverse the string and return it.

Exercise 3: Arrays

Write a method that takes in an array of ints and returns the average of all the numbers.