

## Create a Class Assignment

1. Create a class as described below:

**Class Name:** Pay

**Fields:** hoursWorked  
payRate  
grossPay

**Constructors:** A default **constructor** to initialize the fields. The **payRate** field should be set to \$9.75 and the hours worked field to zero.

Another **constructor** with one argument, the number of hours worked. It should assign this value to the appropriate field, set the pay rate field to the default value of \$9.75.

**Methods:** **getHours()** - This method returns the hoursWorked field value.

**getPayRate()** - This method returns the payRate field value.

**getGrossPay()** - This method returns the grossPay field value.

**calcGrossPay()** - This method calculates the gross pay for an instance of the class (hours \* payRate)

**setHours()** - This method has one argument representing the number of hours worked.

**setPayRate()** - This method has one argument representing the current pay rate to be assigned.

Save this file with the appropriate file name. Compile the file.

2. Create another class named **testPay** that uses the above class. This class should have a **main()** method that behaves as follows:

1. Create two instances of the Pay class: **Emp1** that uses the default constructor, **Emp2** that creates an instance with hours worked equal to 36.
2. Change the hours worked for Emp1 to 48.
3. Change the pay rate for Emp2 to \$15.60.
4. Calculate the gross pay for both instances.
5. Display the hours worked, pay rate, and gross pay for both instances with appropriate labels.

Save this file, compile, and execute it.

3. Create another class named **testACompany** that uses the class created in step #1. This class should also have a **main()** method that implements the following:

1. Create three instances of the Pay class: **boss** that uses the default constructor, **manager** that creates an instance with hours worked equal to 25 and **accountant** that creates an instance with hours worked equal to 17.
2. Change the hours worked for the accountant to 38.
3. Prompt the user to enter the number of hours worked for the boss and assign it to the attribute.
4. Change the hours worked for the manager to 46.
5. Prompt the user to enter the pay rate for the boss and assign it to the appropriate attribute.
6. Prompt the user to enter the accountant's pay rate and assign it to the attribute.
4. Calculate the gross pay for all the instances.
5. Display the hours worked, pay rate, and gross pay for both instances with appropriate labels.

Save this file, compile, and execute it.