

1. Employee Class (Ch 6)

Write a class named Employee that has the following fields:

- **Name** – The name field references a String object that holds the employee's name.
- **idNumber** – The idNumber is an int variable that holds the employee's ID number.
- **Department** – The department field references a String object that holds the name of the department where the employee works.
- **Position** – The position field references a String object that holds the employee's job title.

The class should have the following constructors:

- A constructor that accepts the following values as arguments and assigns them to the appropriate fields: employee's name, employee's ID number, department, and position.
- A constructor that accepts the following values as arguments and assigns them to the appropriate fields: employee's name and ID number. The department and position fields should be assigned an empty string ("").
- A no-arg constructor that assigns empty strings ("") to the name, department, and position fields, and 0 to the idNumber field.

Write appropriate mutator methods that store values in these fields and accessor methods that return the values in these fields. Once you have written the class, write a separate program that creates three Employee objects to hold the following data:

Name	ID Number	Department	Position
Susan Meyers	47899	Accounting	Vice President
Mark Jones	39119	IT	Programmer
Joy Rogers	81774	Manufacturing	Engineer

The program should store this data in the three objects and then display the data for each employee on the screen.

8. Temperature Class (Ch 6)

Write a Temperature class that will hold a temperature in Fahrenheit, and provide methods to get the temperature in Fahrenheit, Celsius, and Kelvin. The class should have the following field:

- **ftemp** – A double that holds a Fahrenheit temperature.

The class should have the following methods:

- **Constructor** – The constructor accepts a Fahrenheit temperature (as a double) and stores it in the ftemp field.
- **setFahrenheit** – The setFahrenheit method accepts a Fahrenheit temperature (as a double) and stores it in the ftemp field.
- **getFahrenheit** – Returns the value of the ftemp field, as a Fahrenheit temperature (no conversion required).
- **getCelsius** – Returns the value of the ftemp field converted to Celsius.
- **getKelvin** – Returns the value of the ftemp field converted to Kelvin.

Use the following formula to convert the Fahrenheit temperature to Celsius:

$$celsius = (5/9) \times (Fahrenheit - 32)$$

Use the following formula to convert the Fahrenheit temperature to Kelvin:

$$Kelvin = ((5/9) \times (Fahrenheit - 32)) + 273$$

Demonstrate the Temperature class by writing a separate program that asks the user for a Fahrenheit temperature. The program should create an instance of the Temperature class, with the value entered by the user passed to the constructor. The program should then call the object's methods to display the temperature in Celsius and Kelvin.