

**WIX1002 Fundamentals of Programming**  
**Semester 1 2015/2016**  
**Tutorial 8 Class**

1. Write statements for each of the following
  - a. Define a class Student.
  - b. Declare the instance variable that used to store contact number.
  - c. Create the constructor that initializes the contact number to null.
  - d. Create another constructor that assign the parameter value to the contact number.
  - e. Create an accessor and mutator method for the contact number.
  - f. Create a method that used to display the contact number.
  - g. Create an object of the class Student.
  - h. Change the contact number using the mutator method.
  - i. Create an object of the class Animal.
  - j. Create an object of the class Animal that used to represent a cat.
  - k. Create an object of the class Number with the value 20 and 40.
2. Create a class that used to represent the 2 dimension coordinate system. The class consists of constructors, instance variables, accessor and mutator method and an output method that display the x-coordinate and y-coordinate.
3. Create a sort method that accepts an integer array parameter. The method will sort the array.
4. Create a digitMultiplication method that returns the multiplication of the digits of a positive integer. When digitMultiplication(1345) is invoked, the method will return 60.
5. Create a class Payment that accept different type of payment methods such as cash payment, cheque payment and credit card payment. For cash payment, the class accepts the amount in cash; for cheque payment, the class accepts the amount and the cheque number; for credit card payment, the class accepts the amount, card holder name, cardType, expiration date and validation code. Use the same method name for the payment.
6. Create a class Connection. The Connection class keeps track of the number of connections to the server. Whenever an object is created, a connection is established. The class has a disconnect method and a display method that display the number of connections to the server.