# Assignment 2

Please complete the problems listed below. This assignment forms part of the assessment for this module and you are required to upload a copy of your solution on Moodle using the template program listed on Moodle. Please remember to include your name and student number.

**Question 1**

By writing a test fragment of code show that the class Report, given below, violates the rule on encapsulation. What changes are necessary to ensure the privacy of the data attributes. Please note these classes are included in *Assignment2\_15.java*

class Author{

private String a;

Author(String n){a = n;}

public String get(){return a;}

public String edit(String na){a = na;}

public String toString(){return a;}

}

class Report{

private String title;

private Author author;

public Report(String t, Author a){title = t; author = a;}

public Author author(){return author;}

}

**Question 2**

Write a class Email that has two string attributes: home that records the home e-mail address and work that records the work e-mail. It should have methods to retrieve both addresses and also methods that change an address. You may assume that both e-mail addresses are valid.

Write a class Employee that has three attributes: a surname, a first name and an e-mail address represented by the class Email.

This class should have methods that return: the name as a string representing both surname and first name and the e-mails of the person. It must also have a method that returns the email addresses of the employee.

The important point is to write this Employee class so that **encapsulation** is not endangered by any of its public methods

/\*\*

\* Assignment 2\_2016

\* Student Name:

\* Student Number:

\*/

public class Assignment2\_2016 {

public static void main(String[] args) {

//Question 1 test here that shows why encapsulation is broken

//============================================================

//Question 2 testing here ====================================

}

}

//Classes for Question 1======================================

class Author{

private String a;

Author(String n){a = n;}

public String get(){return a;}

public String edit(String na){a = na;}

public String toString(){return a;}

}

class Report{

private String title;

private Author author;

public Report(String t, Author a){title = t; author = a;}

public Author author(){return author;}

}

//classes for Question 2==================================================

class Email{

String home;

String work;

}

class Employee{

}