

# Tutorial 9

Md. Tanvir Hassan

**Email:** [md.hassan@mail.concordia.ca](mailto:md.hassan@mail.concordia.ca)

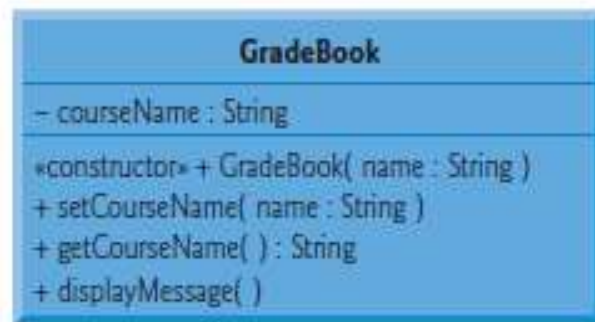
# Exercise 1

**(Set and Get Functions)** Why a class might provide a *set* function and a *get* function for a data member.

# Exercise 2

**(Modifying Class GradeBook)** Modify class GradeBook as follows:

- a) Include a second string data member that represents the course instructor's name.
- b) Provide a *set* function to change the instructor's name and a *get* function to retrieve it.
- c) Modify the constructor to specify course name and instructor name parameters.
- d) Modify function `displayMessage` to output the welcome message and course name, then the string "This course is presented by: " followed by the instructor's name



# Exercise 3

**(Account Class)** Create an Account class that a bank might use to represent customers' bank accounts. Include a data member of type `int` to represent the account balance. [*Note:* In subsequent chapters, we'll use numbers that contain decimal points (e.g., 2.75)—called floating-point values—to represent dollar amounts.] Provide a constructor that receives an initial balance and uses it to initialize the data member. The constructor should validate the initial balance to ensure that it's greater than or equal to 0. If not, set the balance to 0 and display an error message indicating that the initial balance was invalid. Provide three member functions. Member function `credit` should add an amount to the current balance. Member function `debit` should withdraw money from the Account and ensure that the debit amount does not exceed the Account's balance. If it does, the balance should be left unchanged and the function should print a message indicating "Debit amount exceeded account balance." Member function `getBalance` should return the current balance. Create a program that creates two Account objects and tests the member functions of class Account