**Week 11 – LAB7**

1. **First question:**

1.Create a class **Pen** to represent a pen according to the following requirements:

1. A pen has two attributes: **id** and **color**.
2. Add a **constructer** without parameters. In the initialization of the attributes, set the id to zero and the color to an empty string.
3. Add a **constructer** with tow parameters to initialize the attributes id and color by a specific values. Use the keyword "this"
4. Add the method **setId** that set the id of a pen to a specific value.
5. Add the method **setColor** that set the color of a pen to a specific value.
6. Add the method **getId** that return the id of a pen.
7. Add the method **getColor** that return the color of a pen.
8. Create the class **PenTester** with the main method.
9. Create tow pen **P1** and **P2** using the first constructor.
10. Print the characteristics of **P1** and **P2**.
11. Create one pen **P3** using the second constructor.
12. Change the id of the pen **P3**.
13. Print the id of **P3**.

**2.Second question:**

1. Create a class **BankAccount** to represent a bank account according to the following requirements:
2. A bank account has three attributes: accountnumber, balance and customer name.
3. Add a **constructor** without parameters. In the initialization of the attributes, set the number and the balance to zero and the customer’s name to an empty string.
4. Add a **constructor** with three parameters to initialize all the attributes by specific values.
5. Add a **constructor** that allow to initialize the balance at a given number and the customer’s name with empty string and the account number by zero.
6. Add all the required setter methods
7. Add all the required getter methods
8. Add the method withdraw
9. Add the method deposit
10. Add the method reset that change the balance to zero
11. Create a tester class. In the main method:
12. Create one bank account using the first constructor and print its characteristics.
13. Create one bank account using the second constructor and print its characteristics.
14. Create one bank account using the third constructor and print its characteristics.
15. Deposit 1000 in each bank account.
16. Withdraw 500 from the first bank account, 200 from the second one.
17. Change the customer’s name of the third account.