

Sheet 5: Inheritance , Object Class

1. Write a program represent the following class hierarchy

1.1. Person class

a) which contain the following attributes:

- Name
- Address
- Gender
- DateOfBirth

b) And contain the following methods:

- Constructor that take all attributes
- getter & setter for each attribute
- toString
- clone
- equals

1.2. Employee class which inherit Person class

a) which contain the following attributes:

- role
- department

b) And contain the following methods:

- Constructor that take all attributes
- getter & setter for each attribute
- toString
- clone
- equals

1.3. Student class which inherit Person class

a) which contain the following attributes:

- student ID
- classNo

b) And contain the following methods:

- Constructor that take all attributes
- getter & setter for each attribute
- toString

- clone
- equals

1.4. TestPerson class that perform the following:

- a) Create two objects from Employee class
- b) Assign each object with different values
- c) Compare two objects
- d) Create Employee reference that clone the first object
- e) Print all Employee objects created
- f) Create two objects from Student class
- g) Assign each object with different values
- h) Compare two objects
- i) Create Student reference that clone the first object
- j) Print all Student ee objects created

2. Modify **AzharMail** class to extend from Website class to benefits from login & registration functions

3. Homework (to be delivered as report)

3.1. for the project you selected please start implement it as following:

- a) update your project classes with the following:
 - create inheritance between classes
 - implement the following method in all classes you built:
 - ✓ equals
 - ✓ clone
 - ✓ toString
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