Lecturer: Clive Gargan Programming for Big Data

## Exercise – Inheritance and Constructors

1. Implement classes in Python to represent the following entities where Customer is the base class for both PersonalCustomer and CorporateCustomer.

- Customer
- PersonalCustomer
- CorporateCustomer
- 2. The following attributes are common to all entities. Implement as Public Property Getter and Setter Methods.
  - CustomerId
  - AddressLine1
  - City
  - Country
  - PhoneNo
- 3. The following attributes apply to the Personal Customer and should be implemented as Public Property Getter and Setter Methods.
  - FirstName
  - LastName
  - DateOfBirth
  - Age
- 4. The following attributes apply to the CorporateCustomer and should be implemented as Public Property Getter and Setter Methods.
  - CompanyName
  - DateOfIncorporation
  - VATNo
  - CompanyRegNo

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5. Create a Constructor on the base Class Customer which prompts the user for the values for the core attributes and sets the internal member variables of the class (when instantiating either the PersonalCustomer or CorporateCustomer class in your Python code). Any other attributes specific to that entity should be captured in that class. See below screen shot as an example of the input and output for the Personal Customer.

```
C:\Program Files (x86)\Microsoft Visual Studio\Shared\Python36_64\python.exe

Enter your First Name : Mark
Enter your Last Name : Bate
Enter your Date Of Birth (DD/MM/YYYY) : 20/10/1980
Enter your age : 38
CustomerId: 101
AddressLine1: 2 Dame Street
City: Dublin
Country: Ireland
####RETRIEVING VALUES####
First Name is : Mark
Last Name is : Bate
Address Line 1 is : 2 Dame Street
City is : Dublin
Country is : Ireland
Date Of Birth is : 20/10/1980
Age is : 38
Press any key to continue . . . _
```