

# **1 OOP Case Study**

Here is a description of the classes you need to create:

## **1.1 Address**

This class should have a constructor which takes the following optional parameters (default values given in brackets)

house\_no (0)

street (0)

city ("" )

country ("" )

These should be saved as class fields of the same names.

Following functions must be created in the class:

1. get\_full\_address: takes no parameters, returns a string in the following format:

H. No. 2, Street 3, Peshawar Pakistan

(where 2 is the house\_no, 3 is the street and Peshawar and Pakistan are city and country respectively.)

2. Dunder function for str: this function should simply call get\_full\_address and return the string produced by

that function.

## **1.2 Employee**

This class should have a constructor which takes the following optional parameters (default values given in brackets)

id (1)

name (None)

It should also set fields current\_address and permanent\_address to None.

Following functions must be created in the class:

1. set\_current\_address: takes in a house\_no, street, city and country. It should create an object of class Address

with the information given and save it as member field by the name current\_address

2. set\_permanent\_address: Same as above except field name must be permanent\_address

3. get\_current\_address: Should return the string representation of current\_address

4. `get_permanent_address`: Should return the string representation of `permanent_address`

5. Dunder function for `str`: this should produce a string in the following format:

11 Ali H. No. 1, Street 2, Cape Town South Africa

(where 11 is the id, Ali is the name and the rest of it is the string representation of `permanent_address`.)

### **1.3 Lecturer**

1. This class should inherit from `Employee` class. It should have a constructor which takes in no parameters from

the caller. This constructor should call the constructor of its parent with the id value of 1 and name value of

'Mr. Bigshot'.

2. Dunder function for `str`: this should produce a string in the following format:

Lecturer: 1 Mr. Bigshot H. No. 44, Street 24, KL Malaysia

(where the word `lecturer` is hard coded and the rest is the string representation of its parent class. There is a

single space between `Lecturer` and the digit 1.)