

Object Oriented Programming

07 - Programming Exercises

Employee ADT

Program the following task in your C++ compiler. Keep compiling and executing even after writing a single line of code.

ADT: Employee

Write a class named **Employee** for which each object can hold information about a particular employee:

1. The class should have the following four private data members.
 - 1) A string named **name** that holds the employee's name.
 - 2) An integer named **id** that holds the employee's ID number.
 - 3) A string named **department** that holds the name of the department where the employee works.
 - 4) A string named **position** that holds the employee's job title.
2. Provide the implementation of following constructors and a destructor.
 - A constructor that accepts employee's **name**, **id**, **department**, and **position** as arguments and assigns them to the appropriate member variables.
 - A constructor that accepts employee's **name** and **id** number as arguments and assigns them to the appropriate member variables. The **department** and **position** fields should be assigned an empty string ("").
 - A default constructor that assigns empty string ("") to the **name**, **department**, and **position** member variables, and 0 to the **id** member variable.
 - A copy constructor initializes an employee's object with an already existing object.
 - A destructor that does nothing except displaying a simple message "Destructor executed..." on the screen.
3. Provide the implementation of properties methods (get/set) for all the data members (**name**, **id**, **department**, and **position**) of the class.
4. Provide the implementation of the following member functions.
 - **setInfo** method accepts employee's **name**, **id**, **department**, and **position** as arguments and assigns them to the appropriate member variables.
 - **getInfo** method to initialize the data of an employee taken from the user through the console.
 - **putInfo** method to display the information of a particular employee on the console.
5. Test the functionality of **Employee** class by creating its **five objects** to hold the following data in **main** function,

Name	Id Number	Department	Position
Naveed Ali	1230	Computer Science	Assistant Professor
Nouman Abdullah	1231	Software Engineering	Lecturer
Naeem Ahmad	1241	Computer Science	Lecturer
Nadia	1242	Information Technology	Assistant Professor

The program should store this data in the five objects and then display the data for each employee on the screen in the appropriate format.