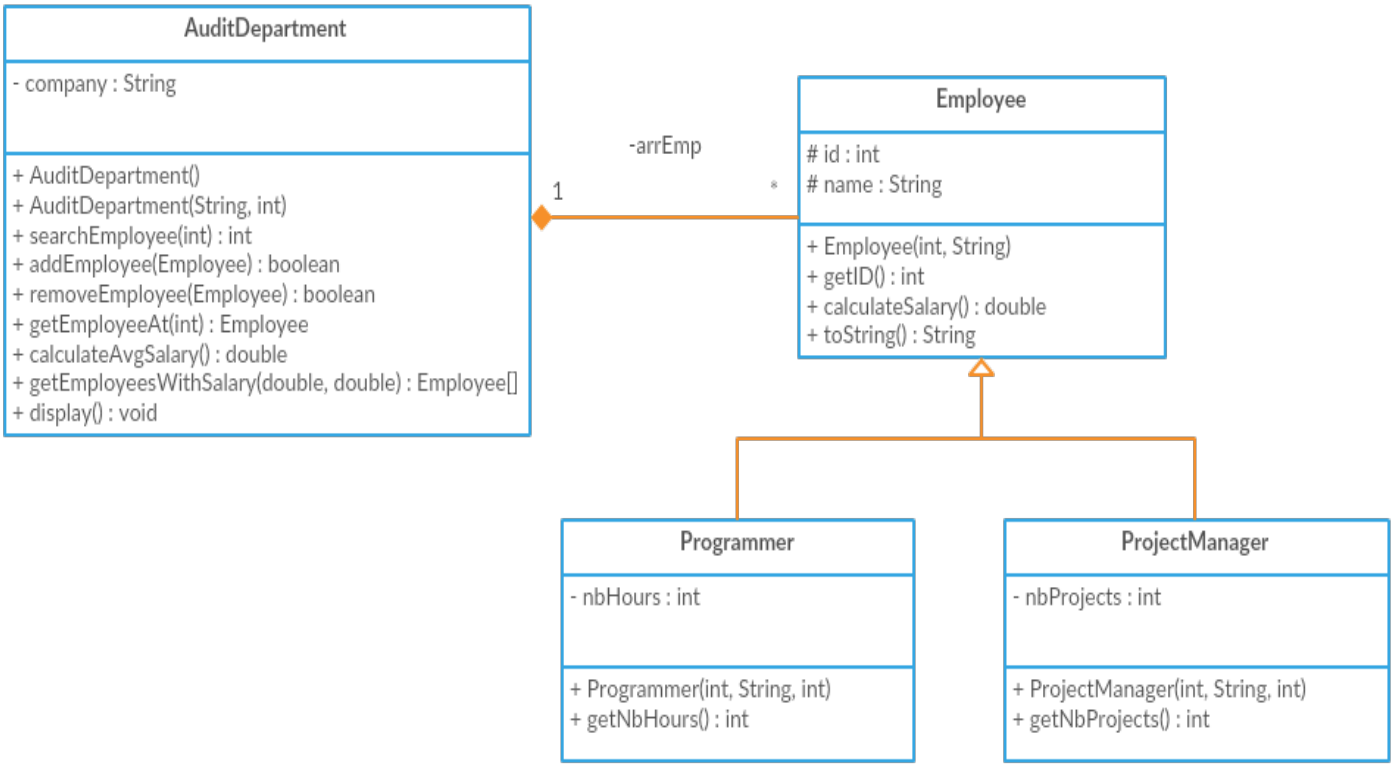
King Saud University
College of Computer and Information Sciences
Department of Computer Science
CSC113 – Computer Programming II – I/O Lab – Fall 2019



We are going to build on our previous work on the AuditDepartment lab from last week and add new methods and options related to I/O operations.

AuditDepartment class:

- **Methods:**
  - ***void saveEmployeesData(String filename):*** writes into the object file ***filename*** all the info of the current employees as an array of ***Employee (arrEmp)***
  - ***void loadEmployeesData(String filename):*** reads from the object file ***filename*** all the info of the employees as an array of ***Employee (arrEmp)***
  - ***String toString():*** returns a string representation of an ***AuditDepartment*** object

Exercise 1: Translate into Java code the previous methods and make sure you handle all possible exceptions related to ***IO*** in these methods and import all necessary packages.

Exercise 2:
In the main method that tests the functionalities of the previous classes, add the following options to the menu:

- Previous options
- To read Employees info from an object file, enter 6
- To write Employees info into an object file, enter 7
- To exit, enter -1
- Enter your option:

In cases 6, and 7 you should ask the user to enter the corresponding filenames.

In each method-call that throws an exception, handle that exception using ***try-catch*** statements and print a useful message when an exception is caught. Possible exceptions:

FileNotFoundException, IOException, NumberFormatException,

ClassNotFoundException.

To test your program, using the interactive menu do the following:

- Add a few **Programmers** and **ProjectManagers** to the **AuditDepartment**
- Write the **Employees** info into an object file ***employees.dat***
- Terminate your program
- Run your program again
- Read the **Employees** info from ***employees.dat***
- Terminate your program