**haAmerican International University-Bangladesh**

**CSC 1205: Object Oriented Programming 1(java)**

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| OBE Evaluation for CO2 | | | | | | |
| ***Design system components to solve a real life problem.*** | | | | | | |
| Evaluation Rubric | | | | | | |
| Student ID:17-35472-3 | OOP Concepts (2) | Logical Operations (2) | Correctness (2) | Completeness(2) | Coding Standard(2) | Total Obtained  Marks (10) |
| Name:Sonia,Rabeya Bosri |
| Section:G |  |  |  |  |  |  |

Spring 2019-20

OBE Evaluation

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| 1. | Write a class Document that implements the following methods:   * Document(String a, String t) : constructor that, given author and title, constructs a document for which the number of available copies is 0; * String toString() : that returns a string with all the information about the document; * void createCopies(int n) : that increments by n the number of available copies; * void sellCopies(int n) : that decrements by n the number of available copies; (if n is greater than the number of available copies, then such number should become 0); * String getAuthor() : that returns the name of the author of the document; * String getTitle() : that returns the title of the document; * int getCopies() : that returns the number of available copies of the document.   /\*  Lab exam 9/3/2020 (1)  1ST PART:  **package** Final1;  **public** **class** Doc {  String a;  String t;  **int** copies=0;  **int** n;  **public** String getA() {  **return** a;  }  **public** **void** setA(String a) {  **this**.a = a;  }  **public** String getT() {  **return** t;  }  **public** **void** setT(String t) {  **this**.t = t;  }  **public** **int** getCopies() {  **return** copies;  }  **public** **void** setCopies(**int** copies) {  **this**.copies=copies;  }  @Override  **public** String toString() {  **return** "Doc [a=" + a + ", t=" + t + ", copies=" + copies + ", n=" + n + "]";  }  **public** Doc(String a, String t) {  **super**();  **this**.a = a;  **this**.t = t;    }  **public** Doc() {  **super**();  }  **public** **void** createcopies(**int** n) {  copies=copies+n;  }    **public** **void** sellcopies(**int** n) {  copies=copies-n;  }        }  **package** Final1;  **public** **class** Test\_Doc {      **public** **static** **void** main(String[] args) {  Doc d1 = **new** Doc("Mario Rossi", "My first document");  System.***out***.println(d1);  d1.createcopies(10);  d1.sellcopies(5);  System.***out***.println(d1);  System.***out***.println("Information on the document:");  System.***out***.println("Author: " + d1.getA());  System.***out***.println("Title: " + d1.getT());  System.***out***.println("Copies: " + d1.getCopies());  }  } |  |
| 2. | Write java code and test in main class for the following UML.  E:\Spring 2019-2020\Java OOP\OBE\ExerciseOOP_PersonAndSubclasses.png  Person class------------  **package** finalExam;  **public** **class** Person {  String name;  String address;  **public** Person() {  **super**();  }  **public** Person(String name, String address) {  **super**();  **this**.name = name;  **this**.address = address;  }  **public** String getName() {  **return** name;  }  **public** **void** setName(String name) {  **this**.name = name;  }  **public** String getAddress() {  **return** address;  }  **public** **void** setAddress(String address) {  **this**.address = address;  }  @Override  **public** String toString() {  **return** "Person [name=" + name + ", address=" + address + "]";  }    }  Student class---------   **package** finalExam;  **public** **class** Student **extends** Person {  String program;  **int** year;  **double** fee;  **public** Student() {  **super**();  }  **public** Student(String name,String address,String program, **int** year, **double** fee) {  **super**(name,address);    **this**.program = program;  **this**.year = year;  **this**.fee = fee;  }  **public** String getProgram() {  **return** program;  }  **public** **void** setProgram(String program) {  **this**.program = program;  }  **public** **int** getYear() {  **return** year;  }  **public** **void** setYear(**int** year) {  **this**.year = year;  }  **public** **double** getFee() {  **return** fee;  }  **public** **void** setFee(**double** fee) {  **this**.fee = fee;  }  @Override  **public** String toString() {  **return** "Student [program=" + program + ", year=" + year + ", fee=" + fee + ", name=" + name + ", address="  + address + "]";  }    }  Staff class---------------  **package** finalExam;  **public** **class** Staff **extends** Person{  String School;  **double** pay;  **public** Staff() {  **super**();  }  **public** Staff(String name,String address,String school, **double** pay) {  **super**(name,address);  **this**.School = school;  **this**.pay = pay;  }  **public** String getSchool() {  **return** School;  }  **public** **void** setSchool(String school) {  School = school;  }  **public** **double** getPay() {  **return** pay;  }  **public** **void** setPay(**double** pay) {  **this**.pay = pay;  }  @Override  **public** String toString() {  **return** "Staff [School=" + School + ", pay=" + pay + ", name=" + name + ", address=" + address + "]";  }  }  TESTALL Class-------------  **package** finalExam;  **public** **class** TestAll {  **public** **static** **void** main(String[] args) {  Student s1=**new** Student("Sonia","Dhaka-BD","cse",2020,50000.00);  System.***out***.println(s1);  Staff s2=**new** Staff("Sonia","Khulna","city girls",400000.00);  System.***out***.println(s2);  }  } |  |