Composition and Concrete Classes Exercise **//23//**

Preparation:

1. Create a new NetBeans project called **Question2** with the package structure **oop.exams.question2**.
2. Extract the content of the provided zip file "**Q2**", under folder **Q2**, you will find the files needed for this question.
3. Add the provided **StaffMember.jar** file to the "**Libraries**" for Question2 project.
4. Remember to Edit the StaffMember library and add the extracted "**javadoc**" folder as the Javadoc for this library.
5. Create a new class called **Asset** for the Question2 project as described below.

Question 2.1: **[16]**

A staff member can be a lecturer at a university. At the university, the lecturer is usually assigned some assets like a laptop or a projector for teaching purposes. The management at the university needs to keep track of which assets are assigned to which staff member. You are requested to create an Asset class that can be used to represent the assigned assets at the university.

Complete the **Asset** concrete class as explained in the UML class diagram (**Table 2.1**) and the description (**Table 2.2**).

oop.exams.asset.Asset
- assetNumber: String - serialNumber: String - deviceDescription: String - assignedTo: StaffMember
+ Asset(String, String, String) + Asset(String, String, String, StaffMember) + Asset(String, String, String, String, String, int, int) + setAssignedTo(StaffMember): void + getAssignedTo(): StaffMember + assetDetails(): String

Table 2.1: UML Class Diagram (Asset)

Attribute/Method	Description	Marks
Class details	Packaged concrete class.	**2**
assetNumber serialNumber deviceDescription assignedTo	These are instance data members of the Asset class. Any asset will have an asset number (**assetNumber**) given by the university, a serial number (**serialNumber**) that makes it unique, and a description (**deviceDescription**) that tells you exactly what the asset is. The university will assign the asset to a staff member (**assignedTo**).	**2**
Asset(String, String, String)	The parameterized constructor will receive the asset number, serial number, and description of the device as parameters to initialize the respective instance data members.	**1**
Asset(String, String, String, StaffMember)	The overloaded parameterized constructor will receive the asset number, serial number, the description of the device, and the staff member to whom the asset is assigned as parameters to initialize the respective instance data members.	**2**
Asset(String, String, String, String, String, int, int)	The overloaded parameterized constructor will receive the asset number, serial number, description of the device, and the details of the staff member to whom the asset is assigned as parameters to initialize the respective instance data members.	**4**
setAssignedTo(StaffMember)	Mutator method.	**1**
getAssignedTo()	Accessor method.	**1**
assetDetails()	This method will return the details of the asset as a string value as shown below: **The asset details:** **Asset Number: XXXXXX** **Description: XXXXXX** **Serial Number: XXXXXX** **Asset Assigned to: XXXXXXX** The "**X**" represents the actual values of the asset instance data members.	**3**

Table 2.2: Class Description (Asset)

Question 2.2: **[7]**

In the **main()** method of the **Question2** application class, create an **Asset object** by using the 3rd overloaded parameterized constructor and present the details of the object as shown in **Figure 2.1**.

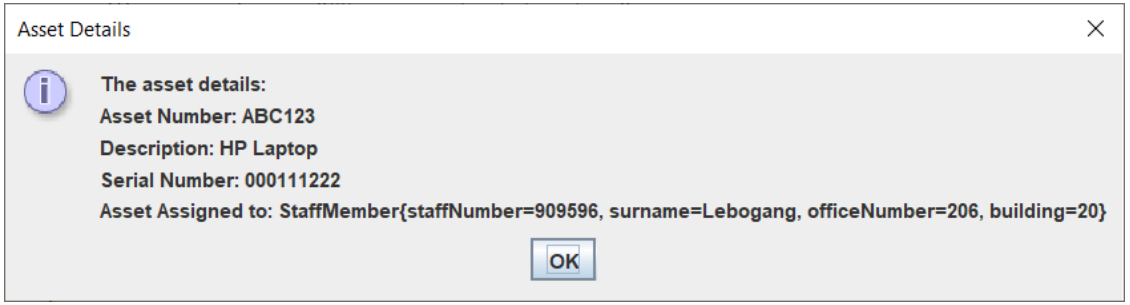

Figure 2.1 (Output Example)