** COMSATS University Islamabad, Lahore Campus**

***Lab 6***

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Course Title: | Object Oriented Software Engineering | | | | Course Code: | CSC 304 | Credit Hours: | | 3(2,1) |
| Course Instructor IndhsdjsIInstructorInstructor/s: | Yella Mehroze | | | | Theory/Lab Name: | Lab | | | |
| Semester: | 4th | Batch: | Fa19-BSE | Section: | A , B | Semester | | Spring 2021 | |

**Name – AREEB AHMED**

**Registration ID – FA19-BSE-022**

**Section- B**

**Outline**

* **Identification of attributes associated with instances of class**
* **Identification of subclasses and superclasses**

**[Write your solutions in this document]**

# **Task 1**

Write the possible attributes you think for each instance of class ‘Employee’. Use MS Word bulleting style to answer this question.

* ***EmployeeID***
* ***FirstName***
* ***LastName***
* ***PhoneNumber***
* ***Email***
* ***Salary***

# **Task 2**

For each of the following sets of classes, find an appropriate superclass and the polymorphic operations that should be included in this superclass. Explain the way these operations would behave in each subclass and identify some operations that might be present in only one of the subclasses.

1. Square, Circle, Rectangle

**Superclass**: Shapes

In superclass, we have methods:

* getArea()
* getPerimeter()
* getCenter()
* getResize

1. Truck, Ambulance, Bus

**Superclass:** Vehicle

In superclass, we have methods:

* getEngineNo()
* getModel()
* getManufacturers()
* getFuelCapacity()
* getColour()

1. Techician, AdministrativeAssistant, Manager

**Superclass:** Employee

* getFName()
* getLName()
* getSalary()
* getEmail()
* getDOB()

***For any queries***

[***yellamehroze@cuilahore.edu.pk***](mailto:yellamehroze@cuilahore.edu.pk)

***Office: H-Block – Room 23 (H – 23)***