**The University Of Azad Jammu & Kashmir,Muzaffarabad**

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Roll NO: 2024-SE-23

Course Code: CS-1204

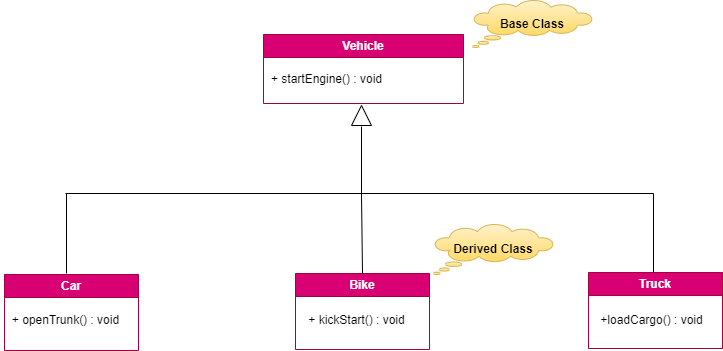
Submission Date:13thMay ,2025

Instructor Name: Engr. Awais Rathore

Course Title: Object Oriented Programming

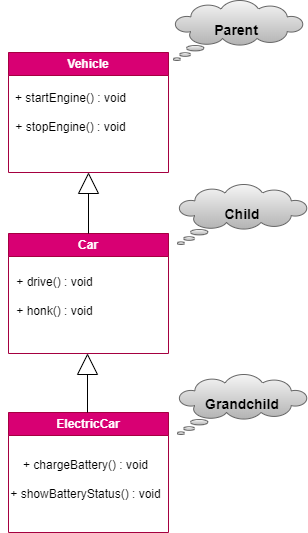
DEPARTMENT OF SOFTWARE ENGINEERING

**~:UML Class Diagram:~**

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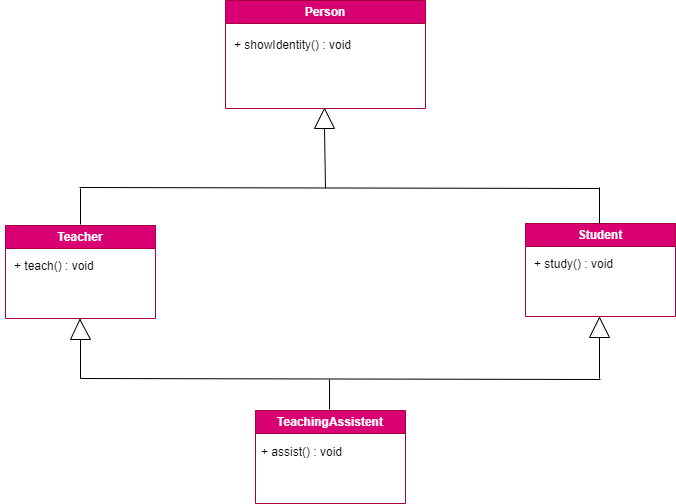
**Hierarchical Inheritance:**

* when multiple derived classes inherit from a single base class.
* It has one parent class and many child classes.



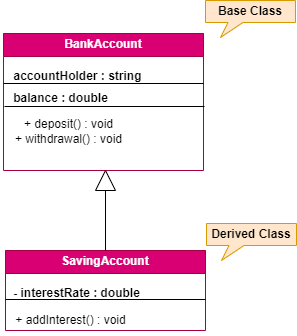
**Multilevel Inheritance:**

* Multilevel inheritance involves a class derived from a class that is already derived from another class.
* parent–child grandchild hierarchy.

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**Hybrid Inheritance:**

* Hybrid inheritance is a combination of more than one type of inheritance.
* In this type, compiler is confused which path can be use.
* Also known as Diamond Problem



**Single Inheritance:**

* Single inheritance allows a derived class to inherit from one base class.
* It is simplest and easy to understand.