Object-oriented programming

International Baccalaureate · IB Diploma · Computer Science · HL · Vocabulary in context

Word	Example
class /klæs/	A **class** is a plan for making objects.
attribute /'ætrɪbjuːt/	Name and age are each an **attribute** of a student.
method /'meθəd/	upper() is a string **method**: “hi”.upper() gives “HI”. upper() ”hi”.upper() “HI”。
object /'ɒbdʒekt/	Each car in the game is an **object**.
instance /'ɪnstəns/	Each dog object is an **instance** of the Dog class. Dog
instantiation /ˌɪnstænʃɪ'eɪʃn/	**Instantiation** creates an object from a class.
state /steɪt/	An object’s **state** is the current values of its attributes.
behaviour	The methods of a class define its **behaviour**.
constructor /kən'strʌktə/	The **constructor** sets up a new object.
reference /'refrəns/	A variable holds a **reference** to an object, not a copy.
instance attribute	Each object has its own value for an **instance attribute**.
static /'stætɪk/	A **static** attribute is shared by all objects of the class.
encapsulation /ɪnˌkæpsjʊ'leɪʃn/	**Encapsulation** keeps an object’s data private.

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private /'praɪvət/	A **private** attribute should only be used inside its own class.
public	A **public** method can be called from outside the class.
accessor /ək'sesə/	An **accessor** method returns the value of a private attribute.
mutator /mju:'teɪtə/	setName() is a **mutator**: it changes a value. setName()
inheritance /ɪn'herɪtəns/	With **inheritance**, a Bus class gets the methods of the Vehicle class. Bus Vehicle
subclass /'sʌbklæs/	Bus is a **subclass** of Vehicle. Bus Vehicle
superclass /'su:pəklæs/	Vehicle is the **superclass** of Bus. Vehicle Bus
polymorphism /'pɒlɪmɔ:fɪzəm/	**Polymorphism** lets one method name work in different classes.
override /ˌəʊvə'raɪd/	A child class can **override** a method to change what it does.
overloading /ˌəʊvə'ləʊdɪŋ/	**Overloading** means two methods have the same name but different parameters.
abstract class	You cannot make an object from an **abstract class**.
abstract method	An **abstract method** has no body; subclasses must write it.
composition /ˌkɒmpə'zɪʃn/	**Composition** means one object contains another: a car has an engine.

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aggregation /ˌægrɪˈgeɪʃn/	**Aggregation**: a class has students, but the students exist without it.
design pattern	A **design pattern** is a tested solution to a common coding problem.

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