

- 1) A class is a template for defining objects.
~~at methods~~ The class contains methods and attributes for creating objects. an object is a specific thing created by a class which follows all the attributes in the class.
- 2) class members are the attributes and methods inside of a class, the attributes refer to the properties of an object and the methods are the functions of an object.
- 3) Encapsulation is the process of only letting certain parts of a class be seen by other classes in order to ~~protect~~ keep the data safe. Information hiding is similar in that it exposes only the necessary parts of an object in order for the application to run properly.
- 4) Generalization is the process of combining two or more classes into one superclass through inheritance. Two classes with similar function can be combined into one.
- 5) aggregation and composition refer to the ownership of a class. In Aggregation an object can exist separately from the owner, in composition the owned object is created by the owner.

6) Dynamic allocation ~~method~~ is the allocation of memory at runtime as opposed to upon compiling.

7) Static method matching is the action of resolving which method to run at the time of compiling.

8) Dynamic binding is when the method called for an object is determined at runtime rather than compile time.

9) Polymorphism is the ability for an object to respond to a method in different ways under different circumstances.

10) Deep copy copies all values in the object recursively and copies all the sub-objects whereas a shallow copy only copies the immediate attributes.

11) Fat interface is when an interface contains more methods than necessary for the classes.

12) ^{the} Open-closed principle says that classes, functions, etc should be open for extension but closed for modification.

13) Dynamic linking loads any libraries upon runtime where as static linking loads the libraries at compile time.

14) The fragile base class problem is when changes to the base class affect the behavior of other classes.