

## Week 5 Research

What is the relationship between a Class and an Object?

A class is a blueprint defining properties so objects can be created with the particular properties found in the class. Classes have no memory on their own since they are just the blueprint. When objects are created from the class, there is memory at that time since the blueprint is being used. A class can also describe the contents of the objects which are contained inside of it such as the variables and the methods used. An object is an instance of the class and will carry the behavior of the class as well. A class can be considered a logical item while the object is a physical item.

References – [Caml.inria.fr](http://Caml.inria.fr), [Stackoverflow.com](http://Stackoverflow.com), [guru99.com](http://guru99.com), [developer.mozilla.org](http://developer.mozilla.org)

What is an exception and what are best practices for handling them?

An exception is an object with an explanation of what went amiss and discovers where the problem occurred. Some best practices for handling exceptions include:

- Using throw exceptions
- Using try/catch blocks around code
- Designing classes to try and avoid exceptions
- End exception class names with the word Exception

The try/catch method seems to be the most common as it allows you to try to run your code looking for errors and if one is found it will be sent to the catch block so the error can be handled. If no errors are discovered the rest of the code can run normally.

References – [section.io](http://section.io), [learn.microsoft.com](http://learn.microsoft.com), [javapoint.com](http://javapoint.com)