

# Week-05 Research

## Question 1:

What are the differences between checked and unchecked exceptions?

### Answer:

Checked exceptions are checked at compile time. In Java, a module that can throw exception must have those exceptions handled in code such as try-catch blocks or using a *throws* instruction. Unchecked exceptions are not caught, or checked, at compile time. An example might be the *ArithmeticException* raised during runtime if a divide by zero occurs.

Site: <https://www.geeksforgeeks.org/checked-vs-unchecked-exceptions-in-java/>

## Question 2:

What is unit testing and why is it important?

### Answer:

Unit testing is the testing of the smallest functional parts with in your code. Done during the development phase, it can detect flaws that might be harder to detect later on. Unit tests should be isolated enough to only rely on the code being tested without external dependencies. As such, Unit tests must be performed before Integration tests.

Site: <https://www.techtarget.com/searchsoftwarequality/definition/unit-testing#:~:text=The%20main%20objective%20of%20unit,find%20in%20later%20testing%20stage>  
s.