

Task 11

1. Java offers four primary access modifiers

*default

*private

*protected

*public

default

it allows access within the same package.

private

it can be accessed only within the same class and not from outside the class.

protected

it can be accessed within the same package and also from outside the package with the help of the child class.

public

it can be accessed from within the class as well as from outside the class and also within the package and outside the package.

2. Difference Between Errors and Exceptions

Error

- error denotes a problem largely brought on by a lack of system resources
- errors cannot be corrected once they have been made
- all mistakes in Java are unchecked
- system in which the program is running is responsible for errors

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Exception

- exception are the issues that can appear at runtime and compile time
- It is possible to recover from an exception
- exception can be both checked and unchecked
- The program's code is responsible for exceptions

3. Differences between Checked and Unchecked Exceptions

Checked Exception

- checked exceptions happen at compile time when the source code is transformed into an executable code
- checked exception is checked by the compiler
- checked exceptions can be created manually
- checked exception is counted as a sub-class of the class
- JVM requires the exception to be caught or handled

Unchecked Exception

- unchecked exceptions happen at runtime when the executable program starts running
- These types of exceptions are not checked by the compiler
- They can also be created manually
- This exception happens in runtime, and hence it is not included in the exception class
- JVM does not need the exception to be caught or handled