**Day 4:**

t**hrow:** throw keyword is use to raise or generate the pre defined or user defined exception base upon conditions.

Syntax

throw new **Exception()**

or

throw new ExceptionSubClass()

**throws :** throw keyword use with method signature to throw exception to caller method.

syntax

void display() throws Exception,ExceptionSubClass {

}

Checked exception Vs UnCheckedException

Checked exception it check twice

Compile time as well as run time.

Un checked exception generate only run time.

Un checked exception we can avoid with proper coding. But checked exception we can’t avoid. We need to handle mandatory using try-catch or throws.

**Multithreading:**

Program : set of instructor to perform specific task

Processor : process only responsible to execute the code.

Process : time taken to execute the code or program in execution

Thread : small execution of code within a process. Thread is light weighted process.

Java by default thread base programming language. Inside a main method by default main thread execute.

Multi tasking : more than one task at same time.

We can achieve multi tasking using process base

We can achieve multi tasking using thread base

We can create more than one thread using

1. Extends Thread class
2. Implements Runnable interface

**Synchronization** : synchronization is allow to lock or block or allow only one thread to use all resources at time.

**synchronized** keyword

this keyword we can use with method or block.

Thread life cycle

sleep()

isAlive()

join

wait()

notify()

notifyAll()

Object created-🡪 ready to run(Runnable state)-🡪running -🡪destroy

obj1 obj1.start() run() method

t1 t1.start(); run() method