**Course 2 - Backend and Database Development**

**Day 9: 20 Dec 2024**

**Multithreading :**

Program: set of instruction to perform specific task.

Processor : Processor is responsible to execute the code.

Process : time taken to execute the code. Process known as heavy weighted.

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

Java is by default thread base programming language. Inside main method default thread always get execute.

Java provided Thread class part of lang package. Thread class contains set of methods. currentThread() is a static method which provide default about current thread running inside main method.

Thread t = Thread.currentThread();

t -🡪 Thread[main,5,main]

main -🡪 name of the thread

5🡪 priority of the thread

main 🡪 group of the thread

t.setName(“My Thread”);

t.setPriority(1); we can set the priority between 1 to 10

Thread.MAX\_PRIORITY=10 t.setPriority(Thread.MAX\_PRIORITY);

Thread.MIN\_PRIORITY=1

Thread.NORM\_PRIORITY=5

Multi tasking :

Process base

Task1 Task2 Task3

Thread base

Task1 Task2 Task3

In Java we can create more than one thread using different ways.

1. Extends Thread class.
   1. If we want to create more than one thread. Create user defined class and that class must be extends Thread class.
   2. Then in main method you need to create Thread class object. ie user defined class object that class extends Thread class.
   3. Using object call start() method. start() is pre-defined method which help to start the thread.
   4. Start()