



# Multithreading

## Creating Threads By Extending Thread Class

# Agenda

1

## **Creating Threads By Extending Thread Class**

# Objectives

At the end of this module, you will be able to:

- How to create threads by extending Thread class

# Creating Threads By Extending Thread Class



# Extending Thread

- We can also create Threads by extending the Thread class:
  - Instantiate the class that *extends* Thread
  - This class must override *run()* method
  - The code that should run as a thread will be part of this *run()* method
  - We must call the *start()* method on this thread
  - *start()* in turn calls the thread's *run()* method

# Extending Thread Example

**A very simple demo for creating threads by extending Thread class:-**

```
public class ThreadDemo1 extends Thread{  
    public void run(){  
        System.out.println("thread is running...");  
    }  
    public static void main(String args[]){  
        ThreadDemo1 threadDemo=new ThreadDemo1();  
        threadDemo.start();  
    }  
}
```

# Extending Thread Example (Contd.).

**One More Demo to show that thread is Running:-**

```
public class ThreadDemo extends Thread{
    public void run(){
        for(int counter=1;counter<=100;counter++){
            System.out.println("thread is running..." + counter);
        }
    }
    public static void main(String args[]){
        ThreadDemo threadDemo=new ThreadDemo();
        threadDemo.start();
    }
}
```

# The main Thread

- When a Java program starts executing:
  - the main thread begins running
  - the main thread is immediately created when **main()** commences execution
- Information about the main or any thread can be accessed by obtaining a reference to the thread using a public, static method in the **Thread** class called **currentThread()**



# Obtaining Thread-Specific Information

```
public class ThreadInfo {  
    public static void main(String args[]) {  
        Thread t = Thread.currentThread( );  
        System.out.println("Current Thread :" + t);  
        t.setName("Demo Thread");  
        System.out.println("New name of the thread :" + t);  
        try {  
            Thread.sleep(1000);  
        }  
        catch (InterruptedException e) {  
            System.out.println("Main Thread Interrupted");  
        }  
    }  
}
```

# Obtaining Thread-Specific Information (Contd.).

```
public static void main(String args[]) {  
    Thread t = Thread.currentThread( );  
    System.out.println("Current Thread :" + t);  
    t.setName("Demo Thread");  
    System.out.println("New name of the thread :" + t);  
    try {  
        Thread.sleep(1000);  
    }  
    catch (InterruptedException e) {  
        System.out.println("Main Thread Interrupted");  
    }  
}
```

# Assignment



# Summary

- Creating threads by extending Thread class



# Thank You