**Assisted Practice: 3.1 Programming the Threads Creation**

This section will guide you to:

* Write a program in Java to create a thread by extending the ‘Thread’ class and by implementing the “Runnable” interface
* Use Eclipse (the popular text editor for Java programs)
* Push code to Git

This lab has four sub-sections, namely:

* + 1. Creating a new project in Eclipse
    2. Writing a program in Java by extending the **Thread** class
    3. Writing a program in Java by implementing the **Runnable** interface
    4. Pushing the code to your GitHub repositories

**Step 3.1.1:** Creating a new project in Eclipse

* Open Eclipse
* Go to File -> New -> Project -> Java Project -> Next.
* Type in any project name and click on “Finish.”
* Select your project and go to File -> New -> Class.
* Enter **MyThread** in class name, check the checkbox “public static void main(String[] args)”, and click on “Finish.”

**Step 3.1.2:** Writing a program in Java by extending the **Thread** class

public class MyThread extends Thread

{

public void run()

{

System.out.println("concurrent thread started running..");

}

public static void main( String args[] )

{

MyThread mt = new MyThread();

mt.start();

}

}

**Output:**



**Step 3.1.3:** Writing a program in Java by implementing the **Runnable** interface

* Select your project and go to File -> New -> Class.
* Enter **MyRunnableThread** in class name, check the checkbox “public static void main(String[] args)”, and click on “Finish.”

public class MyRunnableThread implements Runnable{

public static int myCount = 0;

public MyRunnableThread(){

}

public void run() {

while(MyRunnableThread.myCount <= 10){

try{

System.out.println("Expl Thread: "+(++MyRunnableThread.myCount));

Thread.sleep(100);

} catch (InterruptedException iex) {

System.out.println("Exception in thread: "+iex.getMessage());

}

}

}

public static void main(String a[]){

System.out.println("Starting Main Thread...");

MyRunnableThread mrt = new MyRunnableThread();

Thread t = new Thread(mrt);

t.start();

while(MyRunnableThread.myCount <= 10){

try{

System.out.println("Main Thread: "+(++MyRunnableThread.myCount));

Thread.sleep(100);

} catch (InterruptedException iex){

System.out.println("Exception in main thread: "+iex.getMessage());

}

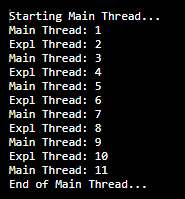
}

System.out.println("End of Main Thread...");

}

}

**Output:**



**Step 3.1.4:** Pushing the code to your GitHub repositories

* Open your command prompt and navigate to the folder where you have created your files.

**cd <folder path>**

* Initialize your repository using the following command:

**git init**

* Add all the files to your git repository using the following command:

**git add .**

* Commit the changes using the following command:

**git commit . -m “Changes have been committed.”**

* Push the files to the folder you initially created using the following command:

**git push -u origin master**