# Applying Java Platform Threads & Virtual Threads: Case Study ex1

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# Learning Objectives in this Part of the Lesson

- Understand how Java threads support concurrency
- Learn how our case study app works
- Know alternative ways of giving code to a thread
- Learn how to pass parameters to a Java thread
- Know the differences between Java platform & virtual threads
  - Be aware of how to program Java platform & virtual threads

```
Thread makeThread
   (Runnable runnable,
    boolean virtual) {
   if (virtual)
     return Thread.ofVirtual()
       .unstarted(runnable);
   else
     return Thread.ofPlatform()
       .unstarted(runnable);
}
```

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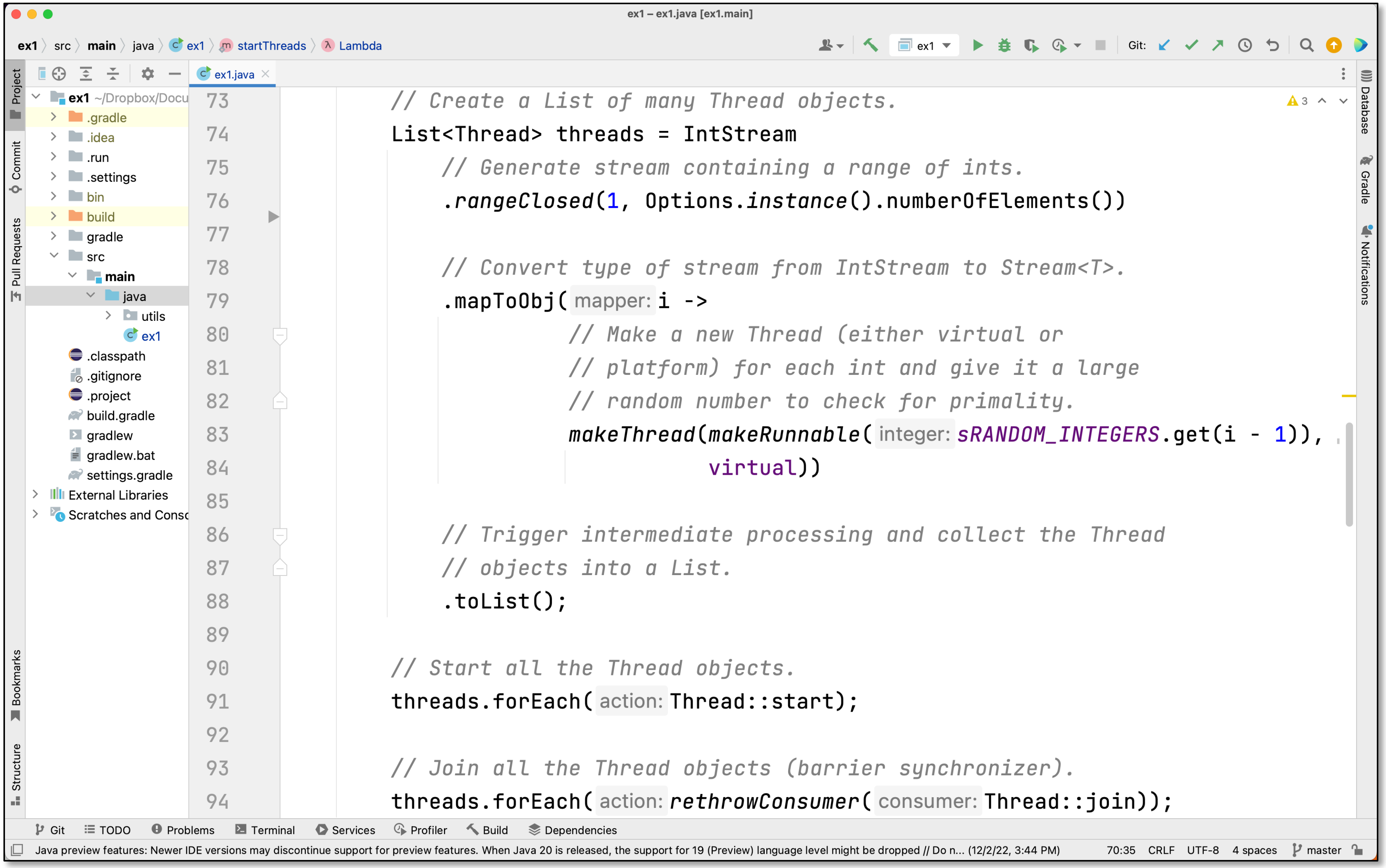

```java
        // Create a List of many Thread objects.
        List<Thread> threads = IntStream
            // Generate stream containing a range of ints.
            .rangeClosed(1, Options.instance().numberOfElements())

            // Convert type of stream from IntStream to Stream<T>.
            .mapToObj( mapper: i ->
                       // Make a new Thread (either virtual or
                       // platform) for each int and give it a large
                       // random number to check for primality.
                       makeThread(makeRunnable( integer: sRANDOM_INTEGERS.get(i - 1)),
                                  virtual))

            // Trigger intermediate processing and collect the Thread
            // objects into a List.
            .toList();

        // Start all the Thread objects.
        threads.forEach( action: Thread::start);

        // Join all the Thread objects (barrier synchronizer).
        threads.forEach( action: rethrowConsumer( consumer: Thread::join));
```

Java preview features: Newer IDE versions may discontinue support for preview features. When Java 20 is released, the support for 19 (Preview) language level might be dropped // Do n... (12/2/22, 3:44 PM)   70:35  CRLF  UTF-8  4 spaces  master

See github.com/douglascraigschmidt/LiveLessons/tree/master/Loom/ex1

## End of Applying Java Platform Threads & Virtual Threads