Breve tutorial de Hilos en Java

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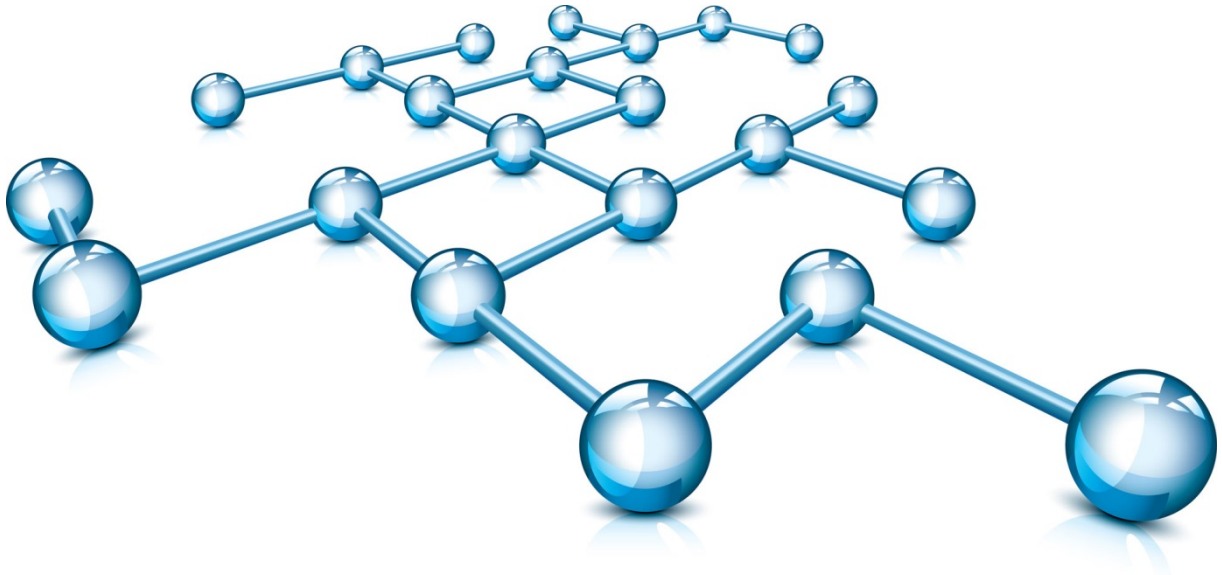
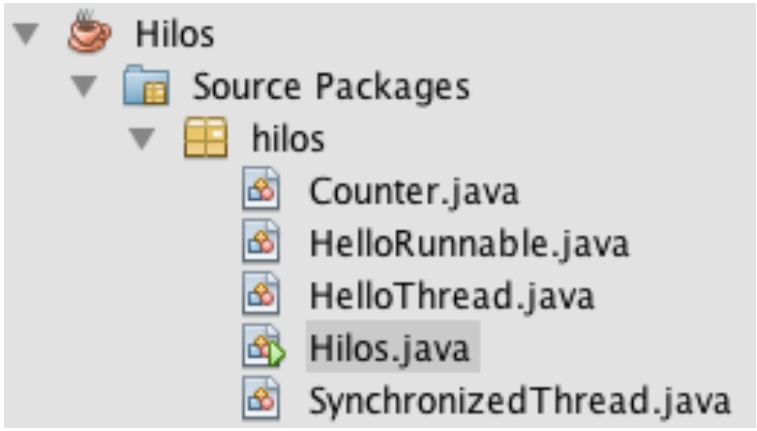


Maneras de definir un Hilo

implements Runnable

extends Thread

Tejiendo con mis primeros hilos



Implementando Runnable

```
public class HelloRunnable implements Runnable {

    public void run() {
        System.out.println("Hola");
    }

}
```

Se ejecuta con método **start()**

Extendiendo Thread

```
public class HelloThread extends Thread {

    public void run() {
        System.out.println("Hola");
    }

}
```

También se ejecuta con método **start()**

Creando los hilos

```
HelloThread hilo1 = new HelloThread();

Thread hilo2 = new Thread(new HelloRunnable());

hilo1.start();

hilo2.start();
```

Un poco de manejo de hilos

- Detener hilos — Thread.sleep(milisegundos)
- Esperar hilos — join() o join(milisegundos)
- Nombre — Thread.currentThread().getName()
- Sincronizar — synchronized

Creando hilos con "regiones críticas"

```
Counter aCounter;

aCounter = new Counter(0);

SynchronizedThread hilo3 = new SynchronizedThread(aCounter);
SynchronizedThread hilo4 = new SynchronizedThread(aCounter);

hilo3.start();
hilo4.start();
```

Código ejemplo de concurrencia sincronizada

```java
public class SynchronizedThread extends Thread {

    private Counter aCounter;

    public SynchronizedThread (Counter aCounter){
        this.aCounter=aCounter;
    }

    public void run(){
        aCounter.aMethod();
    }

}
```

synchronized

```java
public class Counter {

    private int n = 0;

    public Counter(int n){
        this.n=n;
    }

    public void aMethod(){
        for (int i = 0; i<10; i++){
            n++;
            System.out.println(n + " ");
        }
    }

}
```