

1. Below is a list of employees registered for an event organised by Greek Mythology Inc.

Name	Gender	Age
Poseidon	M	23
Hera	F	18
Apollo	M	20
Athena	F	35
Demeter	F	50

Create an Employee class that represent an Employee. Use Java stream to filter and print all female employees aged 21 and above. Provide two alternative solutions.

2. Use a parallel stream to count number of prime numbers between 1 and 50. Write your program in such a way so that you can display which worker thread processes which numbers.
3. Question for discussion: Below are the methods of the Object class. What is the reason for Java to include wait(), notify() and notifyAll() in Object class?

All Methods	Instance Methods	Concrete Methods	Deprecated Methods
Modifier and Type	Method	Description	
protected Object	clone()	Creates and returns a copy of this object.	
boolean	equals(Object obj)	Indicates whether some other object is "equal to" this one.	
protected void	finalize()	Deprecated. The finalization mechanism is inherently problematic.	
Class<?>	getClass()	Returns the runtime class of this Object.	
int	hashCode()	Returns a hash code value for the object.	
void	notify()	Wakes up a single thread that is waiting on this object's monitor.	
void	notifyAll()	Wakes up all threads that are waiting on this object's monitor.	
String	toString()	Returns a string representation of the object.	
void	wait()	Causes the current thread to wait until it is awakened, typically by being notified or interrupted.	
void	wait(long timeout)	Causes the current thread to wait until it is awakened, typically by being notified or interrupted, or until a certain amount of real time has elapsed.	
void	wait(long timeout, int nanos)	Causes the current thread to wait until it is awakened, typically by being notified or interrupted, or until a certain amount of real time has elapsed.	