Softwares required

* JDK 17 or later
* IDE - Eclipse / IntelliJ
* Database - MySQL

Java - Platform independent programming

Fundamentals - Classes, Objects, Arrays, Encapsulation, Abstraction, Polymorphism, Inheritance, Exception Handling

Multithreading -

It allows an application to perform multiple tasks at the same time

ex: MS word

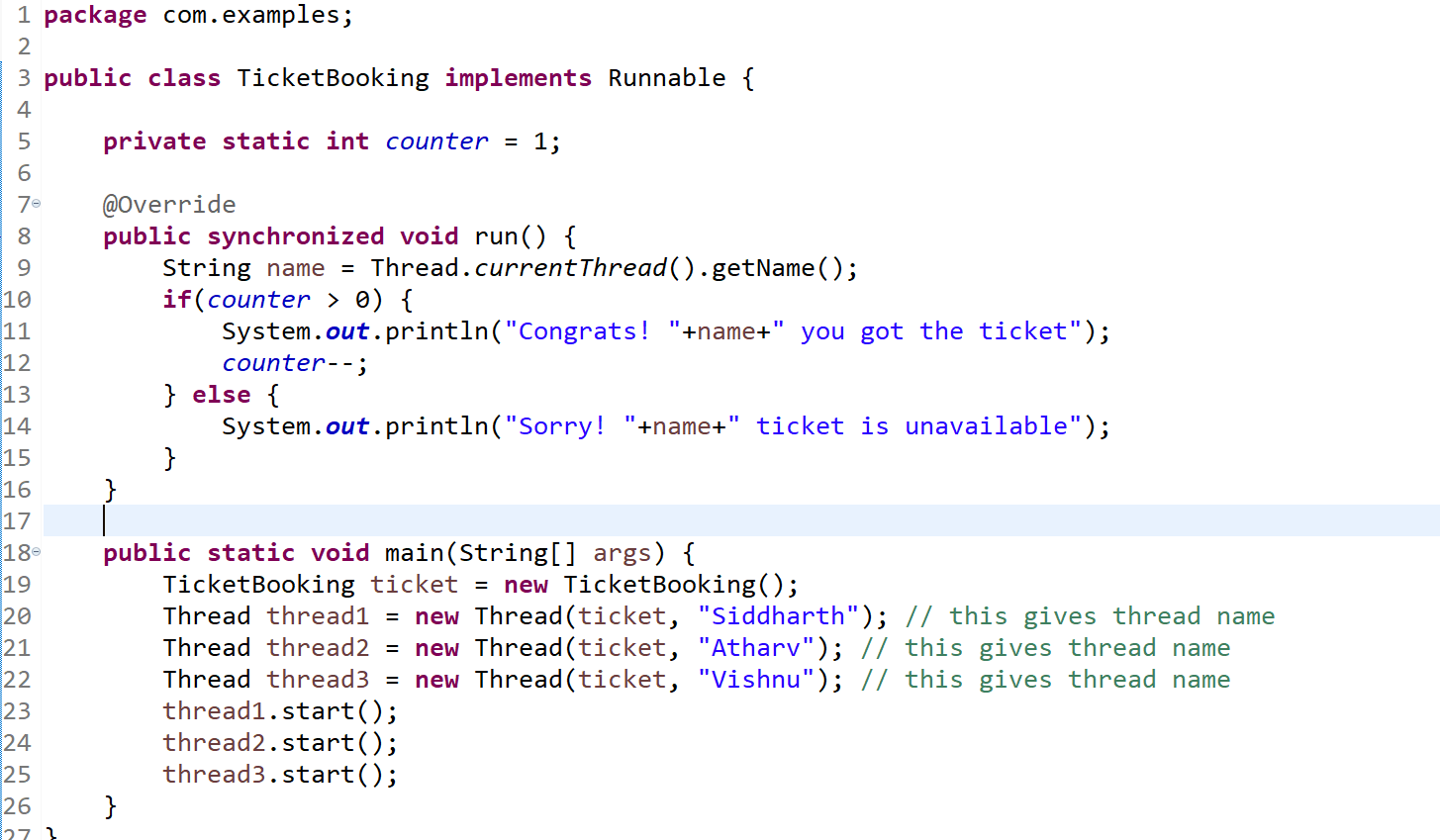
Two API’s used to create multithread programs

1. Thread class - it provides methods to manage threads - creating, starting, stopping
2. Runnable interface - it has a run method - it is an entry point for the threads

In Java application you will have a main thread which runs the main method

How the threads must work while sharing the data

* ticket booking application - tickets = 1 -> 3 users are trying to book the ticket



synchronized method allows only one thread to enter inside the method by acquiring the object lock, other threads should wait for the thread entered to release the lock to invoke the synchronized method

Note: You can also synchronize a particular block of code

synchronized(this) {  
 if(counter>0) { … } else {… }  
}