1.What is the function of wait() and notify ()?
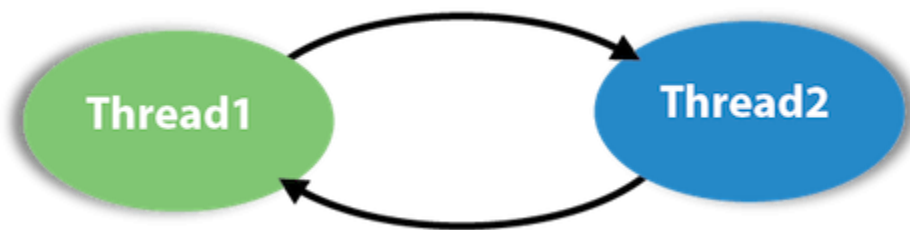
1) wait() method

wait ()-It tells the calling thread to give up the lock and go to sleep until some other thread enters the same monitor and calls notify().

2) notify() method

Notify ()-It wakes up one single thread that called wait() on the same object. It should be noted that calling notify() does not actually give up a lock on a resource

2.What is Deadlock?

Deadlock can occur in a situation when a thread is waiting for an object lock, that is acquired by another thread and second thread is waiting for an object lock that is acquired by first thread. Since, both threads are waiting for each other to release the lock, the condition is called deadlock.

3.What is stream ? How you classify them?

A stream is a sequence of objects that supports various methods which can be pipelined to produce the desired result.

Note: a stream can be defined as a sequence of data.
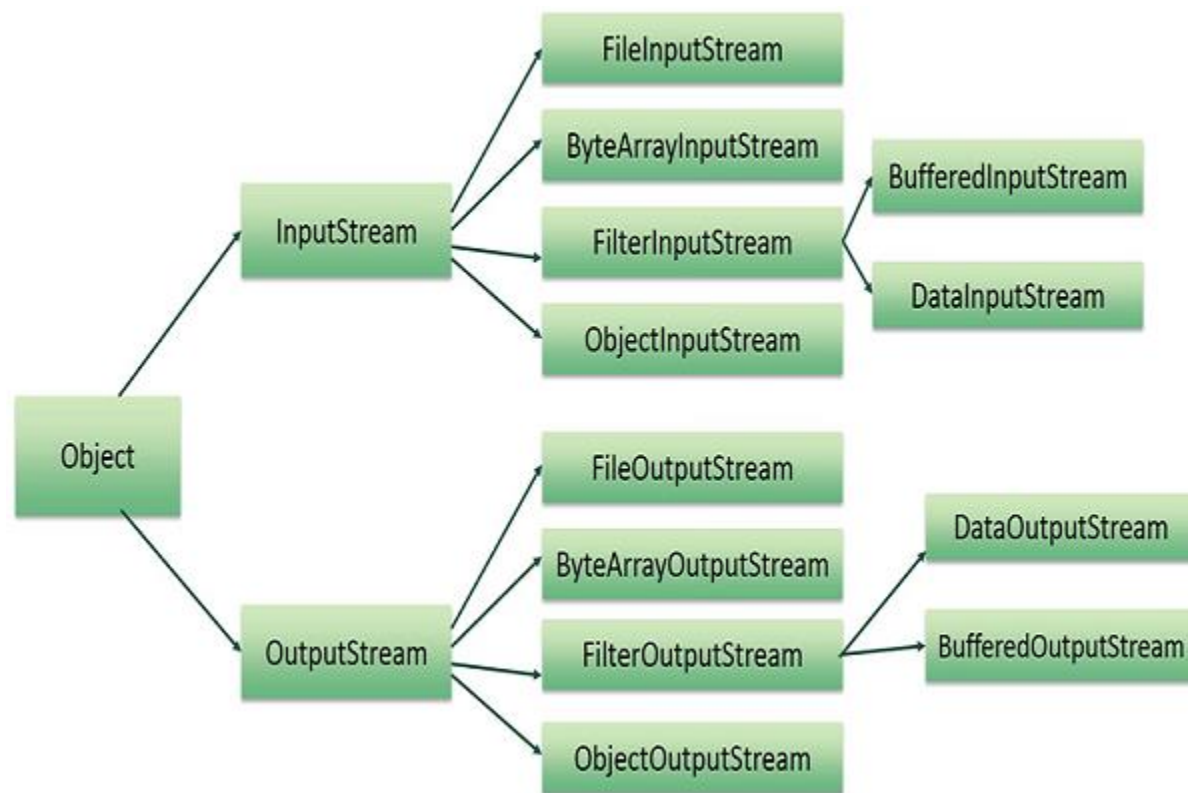
Types of Streams
The java.io package contains a large number of stream classes that provide capabilities for processing all types of data. These classes may be categorized into two groups based on the data type on which they operate.

- **Byte stream classes**
- **Character stream classes**

Reading and Writing Files

As described earlier, a stream can be defined as a sequence of data. The **InputStream** is used to read data from a source and the **OutputStream** is used for writing data to a destination.

Here is a hierarchy of classes to deal with Input and Output streams.

4.What is collection? Write the type of collection.

The **Collection in Java** is a framework that provides an architecture to store and manipulate the group of objects.

Java Collections can achieve all the operations that you perform on a data such as searching, sorting, insertion, manipulation, and deletion.

Write the type of collection.

- Set
- **Queue**
- **List**

- **Stack**
- **PriorityQueues**

5.What is event handler?

Event Handling is the mechanism that controls the event and decides what should happen if an event occurs. This mechanism has a code which is known as an event handler, that is executed when an event occurs.

6.What is the advantage of adapter class? Write down three adapter class.

Advantages of an Adapter Class:

- If a class extends an Adapter Class, we can override some methods which is needed;
- It makes a class highly reusable.
- It provides an empty implementation of all methods in an EventListener Methods.

three adapter class

- FocusAdapter
- WindowAdapter
- KeyAdapter
- MouseAdapter
- MouseMotionAdapterS
- MouseInputAdapter

7.What is the feature of Swing?

- Java swing components are **platform-independent**.
- Swing components are **lightweight**.
- Swing **supports pluggable look and feel**.
- Swing provides **more powerful components** such as tables, lists, scrollpanes, colorchooser, tabbedpane etc.

8.What is layout manager?

A layout manager is an object that implements the LayoutManager interface and determines the size and position of the components within a container. The components can provide size and alignment hints. Exa: FlowLayout, BorderLayout, CardLayout, GridLayout , GridBagLayout, BoxLayout and SpringLayout.

9.What are the two ways of creating thread?

There are two ways to create a thread:

1. By extending Thread class
2. By implementing Runnable interface.

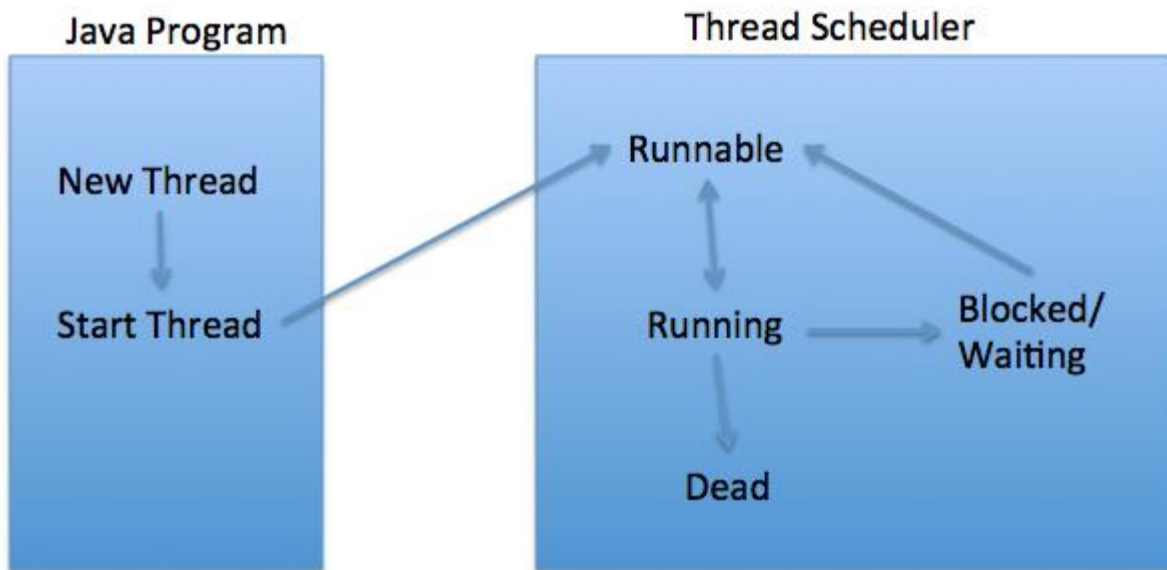10.Write   down   the   thread   states   d

Java Program

New Thread

Start Thread

Thread Scheduler

Runnable

Running

Blocked/ Waiting

Dead

iagram.

1. New
2. Runnable
3. Running

4. Non-Runnable (Blocked)
5. Terminated

New

start()

Runnable

sleep() done, ı/o
complete, lock available,
resume(), notify() or notifyAll()

Running

run() method
exits
or stop()

sleep(), block on l/0, wait
for lock, suspend(), wait()

Terminated