1 :: What is the difference between URL instance and URLConnection instance?

A URL instance represents the location of a resource, and a URLConnection instance represents a link for accessing or communicating with the resource at the location.

2 :: How do I make a connection to URL?

You obtain a URL instance and then invoke openConnection on it. URLConnection is an abstract class, which means you can't directly create instances of it using a constructor. We have to invoke openConnection method on a URL instance, to get the right kind of connection for your URL. Eg. URL url;

URLConnection connection;
try {
url = new URL(”…”);
connection = url.openConnection();
} catch (MalFormedURLException e) { }

3 :: What Is a Socket in Java Networking and RMI?

A socket is one end-point of a two-way communication link between two programs running on the network. A socket is bound to a port number so that the TCP layer can identify the application that data is destined to be sent. Socket classes are used to represent the connection between a client program and a server program. The java.net package provides two classes–Socket and ServerSocket–which implement the client side of the connection and the server side of the connection, respectively.

4 :: What information is needed to create a TCP Socket?

The Local System?s IP Address and Port Number. And the Remote System's IPAddress and Port Number.

5 :: What are the two important TCP Socket classes?

Socket and ServerSocket. ServerSocket is used for normal two-way socket communication. Socket class allows us to read and write through the sockets. getInputStream() and getOutputStream() are the two methods available in Socket class.

6 :: When MalformedURLException and UnknownHostException throws?

When the specified URL is not connected then the URL throw MalformedURLException and If InetAddress? methods getByName and getLocalHost are unable to resolve the host name they throw an UnknownHostException.

7 :: What does RMI stand for?

It stands for Remote Method Invocation.

8 :: What is RMI?

RMI is a set of APIs that allows to build distributed applications. RMI uses interfaces to define remote objects to turn local method invocations into remote method invocations.

9 :: What is the difference between the File and RandomAccessFile classes?

The File class encapsulates the files and directories of the local file system. The RandomAccessFile class provides the methods needed to directly access data contained in any part of a file.

10 :: What interface must an object implement before it can be written to a stream as an object?

An object must implement the Serializable or Externalizable interface before it can be written to a stream as an object.