

## TUTORIAL 4: Using API documentation

Look at the following excerpt from the API documentation for the class `InetAddress`, which is part of the `java.net` package. This class represents an Internet Protocol (IP) network address.

Use the documentation to complete the task described over the page.

Method Summary	
boolean	<b><code>equals</code></b> (Object obj) Compares this object against the specified object.
byte[]	<b><code>getAddress</code></b> () Returns the raw IP address of this <code>InetAddress</code> object.
static InetAddress[]	<b><code>getAllByName</code></b> (String host) Given the name of a host, returns an array of its IP addresses, based on the configured name service on the system.
static InetAddress	<b><code>getByAddress</code></b> (byte[] addr) Returns an <code>InetAddress</code> object given the raw IP address .
static InetAddress	<b><code>getByAddress</code></b> (String host, byte[] addr) Create an <code>InetAddress</code> based on the provided host name and IP address No name service is checked for the validity of the address.
static InetAddress	<b><code>getByName</code></b> (String host) Determines the IP address of a host, given the host's name.
String	<b><code>getCanonicalHostName</code></b> () Gets the fully qualified domain name for this IP address.
String	<b><code>getHostAddress</code></b> () Returns the IP address string in textual presentation.
String	<b><code>getHostName</code></b> () Gets the host name for this IP address.
static InetAddress	<b><code>getLocalHost</code></b> () Returns the local host.
boolean	<b><code>isMulticastAddress</code></b> () Utility routine to check if the <code>InetAddress</code> is an IP multicast address.
boolean	<b><code>isReachable</code></b> (int timeout) Test whether that address is reachable.
boolean	<b><code>isReachable</code></b> (NetworkInterface netif, int ttl, int timeout) Test whether that address is reachable.
boolean	<b><code>isSiteLocalAddress</code></b> () Utility routine to check if the <code>InetAddress</code> is a site local address.
String	<b><code>toString</code></b> () Converts this IP address to a String.

## Task

Use the documentation for `InetAddress` to help you to do each of the following:

1. Write a line of code to import the `InetAddress` class so that you can use it in your program.
2. Given the line of code:

```
String input = "www.gcal.ac.uk";
```

Write code which:

- declares a variable of type `InetAddress` called `ip`
  - calls a method of the class `InetAddress` to assign to this variable an `InetAddress` object representing the IP address of a network host with the name specified by `input`
3. Write a line of code which prints out the IP address as text
  4. Write a line of code which prints out the host name for the IP address
  5. Write a code segment which checks whether the host is reachable within a timeout period of 2 seconds.

The code should print *“reachable”* if the host is reachable, or else print *“not reachable”* if the host is not reachable.

*Does the documentation shown give you enough information to be sure how to do this? What would you do to find further information to help you?*

Once you have tried this task, we will look at how this code can be used to create simple Java network testing tool