

Assignment-2

- 1) In what ways `getHostName ()` differs from `getCannonicalHostName ()`? Write a JAVA program that,
 - Displays both hostname and the cannonical hostname of a domain.
 - Utilizes `getAddress ()` to determine if the given address is IPv4 or IPv6.

The methods `getHostName ()` and `getCannonicalHostName ()` serve to retrieve hostnames associated with an IP address, but they operate differently:

1. Creation Method:

- `getHostName ()` : If an `InetAddress` object is created with a hostname, it will return the hostname. If created with an IP address, it performs a reverse DNS lookup to find the hostname. If the lookup fails, it returns the IP address.
- `getCannonicalHostName ()`: Always attempts a reverse DNS lookup to find the Fully Qualified Domain Name (FQDN) of the IP address. If the lookup fails, it returns the IP address.

2. Reverse DNS Lookup:

Both methods perform a reverse DNS lookup if necessary. However, `getCannonicalHostName` is more likely to return the FQDN if available.

3. Security manager

Both methods are subject to security manager checks. If the lookup is not allowed, they return the IP address.

