

1- Summarize the methods of `DatagramSocket` and `DatagramPacket` classes .

Java `DatagramSocket` class represents a connection-less socket for sending and receiving datagram packets. It is a mechanism used for transmitting datagram packets over network.`

A datagram is basically an information but there is no guarantee of its content, arrival or arrival time.

<code>public void send(DatagramPacket packet)throws IOException</code>	It is used to send a UDP packet to the port specified by the packet.
<code>public synchronized void receive(DatagramPacket packet)throws IOException</code>	The receive method waits for a packet to be received from the port specified by the packet and returns the result.
<code>public void close()</code>	It closes the datagram socket.
<code>public int getLocalPort()</code>	It returns the port number on the local host to which this socket is bound.
<code>public InetAddress getLocalAddress()</code>	It gets the local address to which the socket is bound.
<code>public int getPort()</code>	It returns the number of the port to which the socket is connected

Java `DatagramPacket` is a message that can be sent or received. It is a data container. If you send multiple packet, it may arrive in any order. Additionally, packet delivery is not guaranteed.

<code>public byte[] getData()</code>	It returns the buffer in which the data is stored.
<code>public InetAddress getAddress()</code>	It returns an IP address of the machine where the packet is to be received from the socket.
<code>public int getLength ()</code>	It returns the length of data being sent or received.
<code>public int getPort()</code>	It returns the port number on the remote host where the packet is being sent to or derives from the socket.
<code>public void setData(byte[] data,int</code>	It sets the data to data, the offset

x, int size)	to x, and the length to size.
public void setLength(int size)	It sets the length of the packet to size.
public void setPort(int port)	It sets the port to port.

2-what is socket class ?

The java.net.Socket class allows us to create socket objects that help us in implementing all fundamental socket operations. We can perform various networking operations such as sending, reading data and closing connections. Each Socket object that has been created using with java.net.Socket class has been associated exactly with 1 remote host, for connecting to another different host, we must create a new socket object

3-what is InetAddress class is used for?

Handles internet addresses both as host name and as ip addresses