LAMPIRAN C
SEGMEN PROGRAM
CLASS CLIENT

```vb
1 :    Public Class Client
2 :        '--- PREFIXES ---
3 :        Private Const _INFO As String = "0x00"
4 :        Private Const _MESSAGE As String = "0x01"
5 :        Private Const _DISCONNECT As String = "0xFF"
6 :
7 :        Private socket As TcpClient
8 :        Private isConnected As Boolean = True
9 :        Private listenThread As Thread
10 :       Private stream As NetworkStream
11 :       Private _user, _computer, _IP, _ID As String
12 :
13 :       Public ReadOnly Property User As String
14 :           Get
15 :               Return Me._user
16 :           End Get
17 :       End Property
18 :       Public ReadOnly Property Computer As String
19 :           Get
20 :               Return Me._computer
21 :           End Get
22 :       End Property
23 :       Public ReadOnly Property IP As String
24 :           Get
25 :               Return Me._IP
26 :           End Get
27 :       End Property
28 :       Public ReadOnly Property ID As String
29 :           Get
30 :               Return Me._ID
31 :           End Get
32 :       End Property
33 :       Public ReadOnly Property Connected As Boolean
34 :           Get
35 :               Return Me.isConnected
36 :           End Get
37 :       End Property
38 :
39 :       Public Event OnRead(ByVal id As String, ByVal msg As
     String)
40 :       Public Event OnConnected(ByVal id As String, ByVal
     comName As String, ByVal ipClient As String)
41 :       Public Event OnDisconnected(ByVal id As String)
42 :
43 :       'Constructor
44 :       Public Sub New(ByVal sct As TcpClient, ByRef clientID As
     String)
45 :           Me.socket = sct
46 :           Me._ID = Guid.NewGuid().ToString()
47 :           clientID = Me._ID
48 :
49 :           Try
50 :               stream = socket.GetStream()
51 :           Catch ex As Exception
52 :
53 :           End Try
```

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54 :
55 :            '--- Start Listening ---
56 :            listenThread = New Thread(AddressOf listen)
57 :            listenThread.Start()
58 :        End Sub
59 :        'handler untuk client disconnected
60 :        Protected Overrides Sub Finalize()
61 :            Try
62 :                listenThread.Abort()
63 :            Finally
64 :                MyBase.Finalize()
65 :            End Try
66 :        End Sub
67 :        'sending message to client
68 :        Public Sub sendMessage(ByVal msg As String)
69 :            Dim jam As String
70 :            Dim men As String
71 :            Dim det As String
72 :            Dim mil As String
73 :            jam = Now.Hour.ToString
74 :            men = Now.Minute.ToString
75 :            det = Now.Second.ToString
76 :            mil = Now.Millisecond.ToString
77 :
78 :            msg = msg + "[" + jam + "," + men + "," + det + ","
     + mil + "]"
79 :            Dim bytes() As Byte
80 :            bytes = System.Text.Encoding.ASCII.GetBytes(_MESSAGE
     & msg)
81 :            If stream.CanWrite Then
82 :                stream.Write(bytes, 0, bytes.Length)
83 :                stream.Flush()
84 :                Thread.Sleep(100)
85 :            End If
86 :        End Sub
87 :        'client connect
88 :        Public Sub Connect(ByVal IpServer As String, ByVal Port
     As Integer)
89 :            socket.Connect(IPAddress.Parse(IpServer), Port)
90 :            _user = Environment.UserName
91 :            _computer = Dns.GetHostName()
92 :            _IP = IpServer
93 :            stream = socket.GetStream()
94 :            Try
95 :                Dim bytes() As Byte
96 :                bytes =
     System.Text.Encoding.ASCII.GetBytes(_INFO & _IP & ":" &
     _computer & ":" & _user)
97 :                stream.Write(bytes, 0, bytes.Length)
98 :                stream.Flush()
99 :                RaiseEvent OnConnected(_ID, _computer, _IP)
100 :           Catch ex As Exception
101 :
102 :               End Try
103 :        End Sub
104 :        'client close
```

```vbnet
105 :      Public Sub Close()
106 :          Try
107 :              Dim bytes() As Byte
108 :              bytes =
      System.Text.Encoding.ASCII.GetBytes(_DISCONNECT)
109 :              If stream.CanWrite Then
110 :                  stream.Write(bytes, 0, bytes.Length)
111 :                  stream.Flush()
112 :              End If
113 :              If isConnected Or listenThread.IsAlive Then
      listenThread.Abort()
114 :          Catch ex As Exception
115 :              Console.WriteLine(ex.Message)
116 :          Finally
117 :              isConnected = False
118 :          End Try
119 :      End Sub
120 :      'membaca pesan dari user
121 :      Private Sub listen()
122 :          While isConnected
123 :              If socket.Available > 0 And isConnected Then
124 :                  Dim i As Int32
125 :                  Dim bytes() As Byte = New Byte(1023 + 4) {}
126 :                  Dim data As String = Nothing
127 :                  Do
128 :                      If stream.CanRead And isConnected Then
129 :                          i = stream.Read(bytes, 0,
      bytes.Length)
130 :                          data =
      System.Text.Encoding.ASCII.GetString(bytes, 0, i)
131 :
132 :                          If data.StartsWith(_MESSAGE) Then
      RaiseEvent OnRead(_ID, data.Substring(4))
133 :                          If data.StartsWith(_INFO) Then
134 :                              Dim info() As String =
      data.Substring(4).Split(":")
135 :                              _IP = info(0)
136 :                              _computer = info(1)
137 :                              _user = info(2)
138 :                              RaiseEvent OnConnected(_user,
      _computer, _IP)
139 :                          End If
140 :                          If data.StartsWith(_DISCONNECT) And
      isConnected Then
141 :                              isConnected = False
142 :                              RaiseEvent OnDisconnected(_ID)
143 :                          End If
144 :                      End If
145 :                  Loop While i > 0
146 :              End If
147 :          End While
148 :      End Sub
149 : End Class
```