BEGIN NetworkTrafficMonitoringTool

    FUNCTION InitializeNetworkInterface(interface):
       Open the network interface (e.g., eth0, wlan0)
       Check for interface availability
       IF interface is not available:
          Display error and terminate
       END IF
       Set up packet capture mode (promiscuous mode)

    FUNCTION CapturePackets(interface):
       Initialize packet capture on the network interface
       WHILE TRUE:
          Capture a packet from the network interface
          IF packet is valid:
             Parse packet to extract useful information (e.g., IP, port, protocol)
             Call AnalyzePacket(packet)
          END IF
       END WHILE

    FUNCTION AnalyzePacket(packet):
       Extract source IP, destination IP, protocol, and data size
       Store packet information in memory
       Update statistics (e.g., total packets, total data transfer)
       Display packet details on user interface or log file
       IF traffic pattern exceeds threshold:
          Call GenerateAlert(packet)

    FUNCTION GenerateAlert(packet):
       Display alert with packet details (source, destination, protocol, etc.)
       Log alert to file for later review

    FUNCTION DisplayStats():
       Display real-time network statistics (e.g., total packets, data rate)
       Display top sources/destinations
       Display most common protocols

    FUNCTION Main():
       Prompt user for network interface selection (e.g., eth0, wlan0)
       Initialize network interface
       Display welcome message
       Start packet capturing loop
       Display network traffic stats every 5 seconds
       Allow user to exit or stop monitoring

    CALL Main()

END NetworkTrafficMonitoringTool