🔁 Continuous Listening (Blocking Read)

Flow:

1.Create CAN socket
2.Bind to can0
3.Enter infinite loop
4.Call read()
5.Kernel blocks process
6.CAN frame arrives
7.read() returns data
8.Print data
9.Loop again

Key Point:

➞ Socket is **always waiting**,
CPU is blocked inside read()

Used When :

•Simple testing
•Single socket
•No timeout needed

⚡ Event-Based Listening (select)

Flow:

1.Create CAN socket
2.Bind to can0
3.Enter infinite loop
4.Prepare fd_set
5.Set timeout
6.Call select()
7.Kernel waits for CAN event
8.CAN frame arrives OR timeout
9.select() wakes process
10.Call read() only if ready
11.Process data
12.Loop again

Key Point:

➞ Program **sleeps efficiently,**
wakes only on event

Used When :

•Automotive gateways
•Multiple sockets
•CAN + Ethernet
•Low CPU usage
•Real ECUs