

**i have to make design document, implementation , so give me flow chart for my WAF.**

give flow chart in a text format, i will ocnvert to image

Here is a clear text-based flow chart for your WAF module. You can use this as a basis to create a visual diagram for your design document.

[Start]  
 |  
 v  
[Receive HTTP Request]  
 |  
 v  
[Parse Headers and Body]  
 |  
 v  
[Detection: Both Content-Length and Transfer-Encoding Present?]  
 |--Yes-->[Log & Block: CL.TE/TE.CL Smuggling Detected]-->[Respond 400 Bad Request]-->[End]  
 |  
 v  
[Detection: Multiple CL or TE Headers?]  
 |--Yes-->[Log & Block: Multiple CL/TE Headers Detected]-->[Respond 400 Bad Request]-->[End]  
 |  
 v  
[Detection: Obfuscated CL or TE Headers?]  
 |--Yes-->[Log & Block: Obfuscated Header Detected]-->[Respond 400 Bad Request]-->[End]  
 |  
 v  
[Detection: Invalid/Malformed CL or TE Values?]  
 |--Yes-->[Log & Block: Invalid Header Value Detected]-->[Respond 400 Bad Request]-->[End]  
 |  
 v  
[Detection: Conflicting TE Values? (e.g., chunked, identity)]  
 |--Yes-->[Log & Block: Conflicting TE Values Detected]-->[Respond 400 Bad Request]-->[End]  
 |  
 v  
[Detection: Chunked Body Properly Terminated?]  
 |--No-->[Log & Block: Malformed Chunked Body]-->[Respond 400 Bad Request]-->[End]  
 |  
 v  
[Detection: Content-Length Matches Body?]  
 |--No-->[Log & Block: Content-Length Mismatch]-->[Respond 400 Bad Request]-->[End]  
 |  
 v  
[No Smuggling Detected]  
 |  
 v  
[Forward Request to Go Frontend]  
 |  
 v  
[Relay Response to Client]  
 |  
 v  
[End]

**Legend:**

* Each [Box] is a process or decision.
* |--Yes--> and |--No--> indicate decision branches.
* Logging and blocking steps occur before sending a 400 error response.
* If all checks pass, the request is forwarded to the Go frontend and the response is relayed back to the client.

This flow chart covers all major detection steps and the overall request handling logic for your WAF.