AWS WAF stands for Amazon Web services Web Application Firewall. With AWS WAF, you monitor all the HTTP or HTTPS requests forwarded to Amazon Cloud Front, Amazon Load balancer, Amazon API Gateway REST API, etc., from users.

AWS WAF protects the web applications from common web exploits. AWS WAF also controls who can access the required content or data based on specific conditions such as source IP address etc.

For AWS WAF to work, you will need the below components:

Web ACLs ➜ Web access control list (ACL) protects the set of AWS resources by adding rules. You can set a default action for the web ACL to block or allow through those requests that pass the rules inspections.

Rules ➜ Each rule contains a statement that defines which requests will be blocked or will pass after meeting the criteria or how handle requests that match the criteria.

Rules groups ➜ Instead of using the rules individually, you can add rules in the group so that it can be reused.

provider "aws" {  
}  
resource "aws\_waf\_ipset" "firstipset" {  
 name = "MyFirstipset"  
 ip\_set\_descriptors {  
 type = "IPV4"  
 value = "10.0.0.0/20"  
 }  
}  
resource "aws\_waf\_rule" "waf\_rule" {  
 depends\_on = [aws\_waf\_ipset.firstipset]  
 name = "myFirstwafrulename"  
 metric\_name = "myfirstwafrulemetrics"  
  
 predicates {  
 data\_id = aws\_waf\_ipset.firstipset.id  
 negated = false  
 type = "IPMatch"  
 }  
}  
  
resource "aws\_waf\_rule\_group" "rule\_group" {  
 name = "myfirstwafrulegroupname"  
 metric\_name = "myfirstwafrulegroupmetrics"  
  
 activated\_rule {  
 action {  
 type = "COUNT"  
 }  
 priority = 50  
 rule\_id = aws\_waf\_rule.waf\_rule.id  
 }  
}  
  
resource "aws\_waf\_web\_acl" "waf\_acl" {  
 depends\_on = [  
 aws\_waf\_rule.waf\_rule,  
 aws\_waf\_ipset.firstipset,  
 ]  
 name = "myfirstwebaclname"  
 metric\_name = "myfirstwebaclmetrics"  
  
 default\_action {  
 type = "ALLOW"  
 }  
 rules {  
 action {  
 type = "BLOCK"  
 }  
 priority = 1  
 rule\_id = aws\_waf\_rule.waf\_rule.id  
 type = "REGULAR"  
 }  
}