* AKA web application firewall
* Helps you monitor HTTP and HTTPS request forwarded to amazon API, CloudFront and application load balancer
* Controls access to your content by using IP address from where the request originated or request query string values
* If the request is allowed it provides access and responds with the requested content, otherwise responds with a 403 status code i.e forbidden access
* 3 things make AWS WAF work- *ACL, rules and rules groups*
* It includes a *full featured AP*I that you can use to automate the creation, deployment and maintenance of security rules
* Manages web ACL capacity units ( WCU)for rules, rule group and web ACLs
* WCU is a dimension that is used to calculate and control the operating resources that are used to process your rules within a web ACL.

HOW DOES WAS WAF WORK

* <<Screenshot (28).png>>
* The monitoring piece in the above screenshot is the most important as you do not know what kind of attack you will encounter. This is where monitoring helps. The logging data can help you fine tune your security.

HANDS-ON

* Create 2 EC2 instances and attach a bash script for httpd
* Open the Apache using port 80 on a browser of your choice
* Now go and set up ALB for both servers by going to load balancers and configuring the load balancer with both instances as the listeners
* Now to create a WAF go to WAF and define an IP set
* Shield is DDOS which is distributed denial of service attack
* To get the IP for your computer go to a browser and type whatismyIP and it should give you your IP address
* Now go to the console and create an IP set
* AWS shield protects you against denial of service attacks
* The IP set is *where to protect* your IP address. You will use this when creating your Ipset which you input under IP addresses.
* The Web ACL is *what to protect*. So what to allow or block. In this case its our ALB.
* Go to add AWS resources and add your load balancer

***AWS WAF WITH AWS ONLINE TECH TALKS***

* First line of defense to incoming threats
* NLB, ALB, Greenfield build
* Reach out to Santanu for WAF

***MEETING WITH ANDREW MAKEN***

* WAF should be put in front of the ALB since its going to be internet facing
* Set up one for each NLB
* Completing the solution for Indiana
* Define what are the ALBs for Indiana and which of those are going to require internet access so provision a WAF for those
* This is a security requirement