In this lab we will create a load balancer and connect it to our inventory app

1. Now before starting, we need a reserved external IP address which can be used for the external load balancer to access is from the internet
2. Go to VPC in GCP console, select IP addressed and then click Reserve External static IP  
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3. Give it a Name, make Premium service tier and Global as a type  
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4. Search for load balancer and go to load balancing, then click load balancer
5. Select Application load balancer and click Next  
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6. Keep Public facing option selected, click Next
7. Keep global work load option selected for multiregional  
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8. Keep Global ALB option selected  
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9. Click Configure
10. Fill details for front-end and click done  
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11. Select Backend configuration and select create a backend service option  
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12. Give it name and select “serverless network endpoint group” om backend type. Note this type is same which includes App engine, cloud run and Function.  
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13. Select create serverless network endpoint group option under new backend  
     \*\* \*here network endpoint group basically means a collection of IP addresses that the load balancer will call. So our app engine or cloud run and cloud function expose IP address for communication with them and this IP address is going to be contained inside a network endpoint group. So the network endpoint group is basically some kind of mediator between the load balancer and the actual serverless resource.\*\*\*  
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14. Fill the details and select the inventory app engine in service which we created previously  
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15. Deselect Cloud CDN as it will cost more and also not needed  
    CDN is nothing but content delivery network which helps in providing data faster to users and we do not need that in lab  
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16. Go to advanced setting and keep below  
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17. Click Create
18. Go to routing rules, and keep all default
19. Click review and finalize, go through all configuration we have made and then click Create
20. Once available, open the load balancer, go through options showing and also check the backend details
21. Copy the IP address and open it in the browser. (Initially it may give an error as it may take some time for LB to connect with backend services for first time, try again in a few minutes (Also make sure you have allowed all traffic at App engine firewall which we blocked in last lab)  
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22. This should open our inventory app which we deployed at App Engine using Load Balancer ip address without exposing the app engine details to internet.  
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