

# Hands on Lab Module: Basic Azure Load Balancer

## Prerequisites

An Azure account with an active subscription. If you do not have any account you can [create](#) an account for free.

## Sign into Azure

Sign in to the Azure portal at <https://portal.azure.com>.

In this module we are going to create a Basic Load Balancer (public) that load balances the two Webservers in a the same availability Set.

When you create a public load balancer, you create a new public IP address that is configured as the frontend (**LoadBalancerFrontend** by default) for the load balancer.

1. From the service blade, select **Create a resource > Networking > Load Balancer**.
2. In the **Basics** tab of the **Create load balancer** page, enter, or select the following information:

## Create load balancer

Basics   Tags   Review + create

Azure load balancer is a layer 4 load balancer that distributes incoming traffic among healthy virtual machine instances. Load balancers uses a hash-based distribution algorithm. By default, it uses a 5-tuple (source IP, source port, destination IP, destination port, protocol type) hash to map traffic to available servers. Load balancers can either be internet-facing where it is accessible via public IP addresses, or internal where it is only accessible from a virtual network. Azure load balancers also support Network Address Translation (NAT) to route traffic between public and private IP addresses. [Learn more.](#)

### Project details

Subscription \*

Resource group \*  [Create new](#)

### Instance details

Name \*  ✓

Region \*

Type \* ⓘ ☐ Internal ☒ Public

SKU \* ⓘ ☒ Basic ☐ Standard

### Public IP address

Public IP address \* ⓘ ☒ Create new ☐ Use existing

Public IP address name \*  ✓

Public IP address SKU

Assignment \* ☐ Dynamic ☒ Static

Add a public IPv6 address ⓘ ☒ No ☐ Yes

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3. Leave the other settings to default and select **Review + create**.
4. After the successful Validation, select **Create**.

The Load Balancer instance is created.

## Create load balancer resources

To configure the load balancer, create the following components:

- A Backend pool.
- A health probe.
- A load balancer rule.

### Create a backend pool

Create the backend address pool **myPool1** to include virtual machines for load-balancing internet traffic.

1. Select **All services** in the left-hand menu, select **All resources**, and then select **myRGroupLB** from the resources list.
2. Under **Settings**, select **Backend pools**, then select **Add**.
3. On the **Add a backend pool** page, for name, type **myPool1**, as the name for your backend pool, and then select **Add**.

## Create a health probe

Create a health probe named **myProbe01** to monitor the health of the VMs.

1. Select **All services** in the left-hand menu, select **All resources**, and then select **myRGroupLB** from the resources list.
2. Under **Settings**, select **Health probes**, then select **Add**.
3. Leave the rest of the defaults and Select **OK**.

## Create a load balancer rule

Define the frontend IP configuration for the incoming traffic and the backend IP pool to receive the traffic. The source and destination port are defined in the rule.

1. Select **All services** in the left-hand menu, select **All resources**, and then select **myRGroupLB** from the resources list.
2. Under **Settings**, select **Load balancing rules**, then select **Add**.
3. Use these values to configure the load-balancing rule
  - Name: **myRule01**.
  - Listening on **Port 80**.
  - Backend pool **myPool1** on **Port 80**.
4. Leave the rest of the defaults and then select **OK**.

## Create backend servers

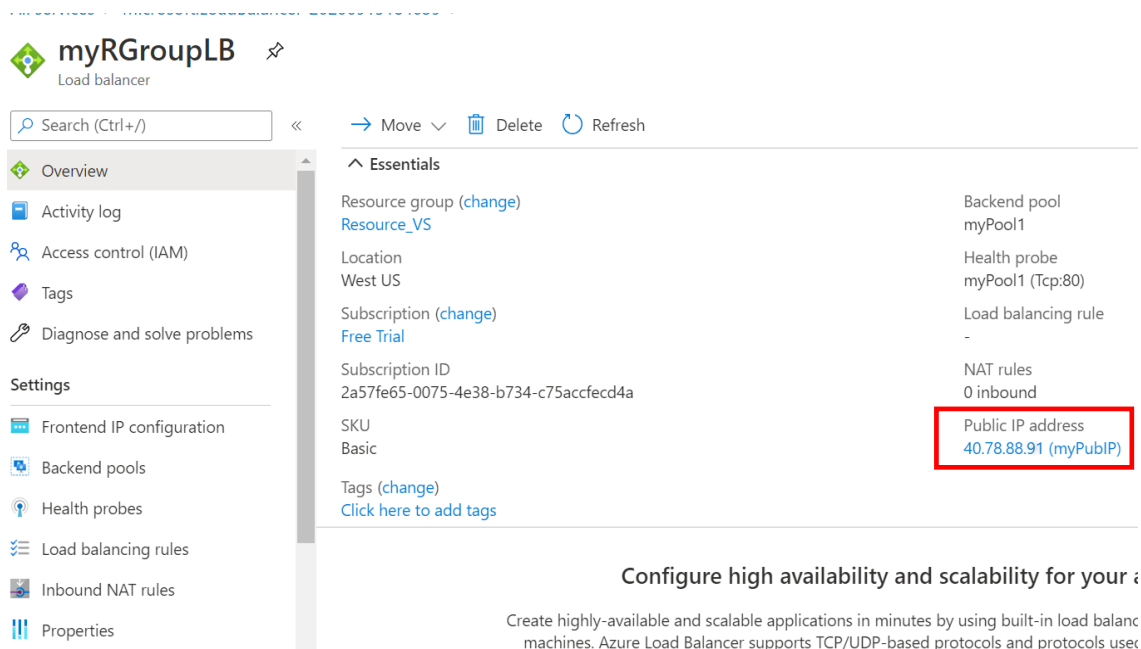
In this section, you:

- Create a virtual network.
- Create two virtual machines (Same Availability Set) for the backend pool **myPool1** of the load balancer.
- Install IIS on the virtual machines to test the load balancer.

Add the Backend Servers to the pool

## Test the load balancer

1. Open the **Overview** screen of the Load Balancer.
2. Copy the public IP address, and then paste it into the address bar of the browser. The default page of IIS Web server is displayed on the browser.



To see the load balancer distribute traffic across all three VMs, you can customize the default page of each VM's IIS Web server and then force-refresh your web browser from the client machine.

## Clean up resources

When no longer needed, delete the resource group, load Balancer, and all related resources. To do so, select the resource group **myRGroupLB** that contains the resources and then select **Delete**.