

Login with **Username & Password** provided by Great Learning lab
Select **Create a resource**

The screenshot shows the Microsoft Azure Home page. At the top, there is a search bar and a Copilot button. Below the search bar, there is a navigation bar with various service icons: Quickstart Center, Azure AI services, Kubernetes services, Virtual machines, App Services, Storage accounts, SQL databases, Azure Cosmos DB, and More services. A red box highlights the "Create a resource" button, which is located next to the "Azure services" heading. Below this, there is a section for "Resources" with tabs for "Recent" and "Favorite". It displays a message stating "No resources have been viewed recently" and a "View all resources" button. Further down, there are sections for "Navigate" (Subscriptions, Resource groups, All resources, Dashboard) and "Tools" (Microsoft Learn, Azure Monitor, Microsoft Defender for Cloud, Cost Management).

Enter **Virtual Networks** in search bar

The screenshot shows the Microsoft Azure "Create a resource" page. In the top left, there is a search bar with the text "virtual network" entered. A red box highlights this search term. To the right of the search bar, there is a "Getting started? Try our Quickstart Center" link. Below the search bar, there is a "Recently created" section and a "Categories" sidebar on the left. The categories listed include: AI + Machine Learning, Analytics, Blockchain, Compute, Containers, Databases, Developer Tools, DevOps, Identity, Integration, Internet of Things, IT & Management Tools, Media, Migration, Mixed Reality, Monitoring & Diagnostics, Networking, and Security. On the right side, there is a "Popular Marketplace products" section with various items like Windows Server 2019 Datacenter, Ubuntu Server 20.04 LTS, Ubuntu Server 22.04 LTS, Red Hat Enterprise Linux 7.4, Essentials 50K, MongoDB Atlas (pay-as-you-go), Microsoft Defender for Endpoint, Azure Backup - AVS, StartStopV2, and Google Cloud Platform IAM. Each item has a "Create" and "Learn more" button.

Select Create

Select Virtual Network

Showing 1 to 20 of 1115 results for 'virtual network'. [Clear search](#)

[Is Marketplace helpful?](#)

Resource group, select **rg_eastus_262385_1_173980496982**

Enter **whizVNet** in Name

Region: **East US**

Basics Security IP addresses Tags Review + create

Subscription * PAYG-Labs2
Resource group * rg_eastus_262385_1_173980496982 [Create new](#)

Virtual network name * whizVNet
Region * (US) East US [Deploy to an Azure Extended Zone](#)

Previous Next Review + create Give feedback

Enter IP Address of 10.1.0.0

Configure your virtual network address space with the IPv4 and IPv6 addresses and subnets you need. [Learn more](#)

Define the address space of your virtual network with one or more IPv4 or IPv6 address ranges. Create subnets to segment the virtual network address space into smaller ranges for use by your applications. When you deploy resources into a subnet, Azure assigns the resource an IP address from the subnet. [Learn more](#)

+ Add a subnet

Subnets	IP address range	Size	NAT gateway
default	10.1.0.0 - 10.1.0.255	/24 (256 addresses)	-

Add IPv4 address space I ▾

Previous Next Review + create Give feedback

Select Edit

Enter myBackendSubnet

Confirm Subnet address range **10.1.0.0/16**, Starting address **10.1.0.0/24**

Select Save

Select an address space and configure your subnet. You can customize a default subnet or select from subnet templates if you plan to add select services later. [Learn more](#)

Subnet purpose Default

Name * myBackendSubnet

IPv4

Include an IPv4 address space

IP4 address range 10.1.0.0/16
10.1.0.0 - 10.1.255.255

Starting address * 10.1.0.0

Size /24 (256 addresses)

Subnet address range 10.1.0.0 - 10.1.0.255

IPv6

Include an IPv6 address space This virtual network has no IPv6 address ranges.

Private subnet

Private subnets enhance security by not providing default outbound access. To enable outbound connectivity for virtual machines to access the internet, it is necessary to explicitly grant outbound access. A NAT gateway is the recommended way to provide outbound connectivity for virtual machines in the subnet. [Learn more](#)

Enable private subnet (no default outbound access)

Security

Simplify internet access for virtual machines by using a network address translation gateway. Filter subnet traffic using a network security rule

Save Cancel Give feedback

IP address and Subnet saved

The screenshot shows the 'Create virtual network' wizard on the 'IP addresses' tab. A red box highlights the 'Add a subnet' section. Inside, a subnet named 'myBackendSubnet' is defined with the IP range '10.1.0.0 - 10.1.0.255' and a size of '/24 (256 addresses)'. Below this, there is a link to 'Add IPv4 address space'.

From Security tab, select **Enable Azure Bastion** checkbox

Enter **myBastionIP** under **Azure Bastion host name**

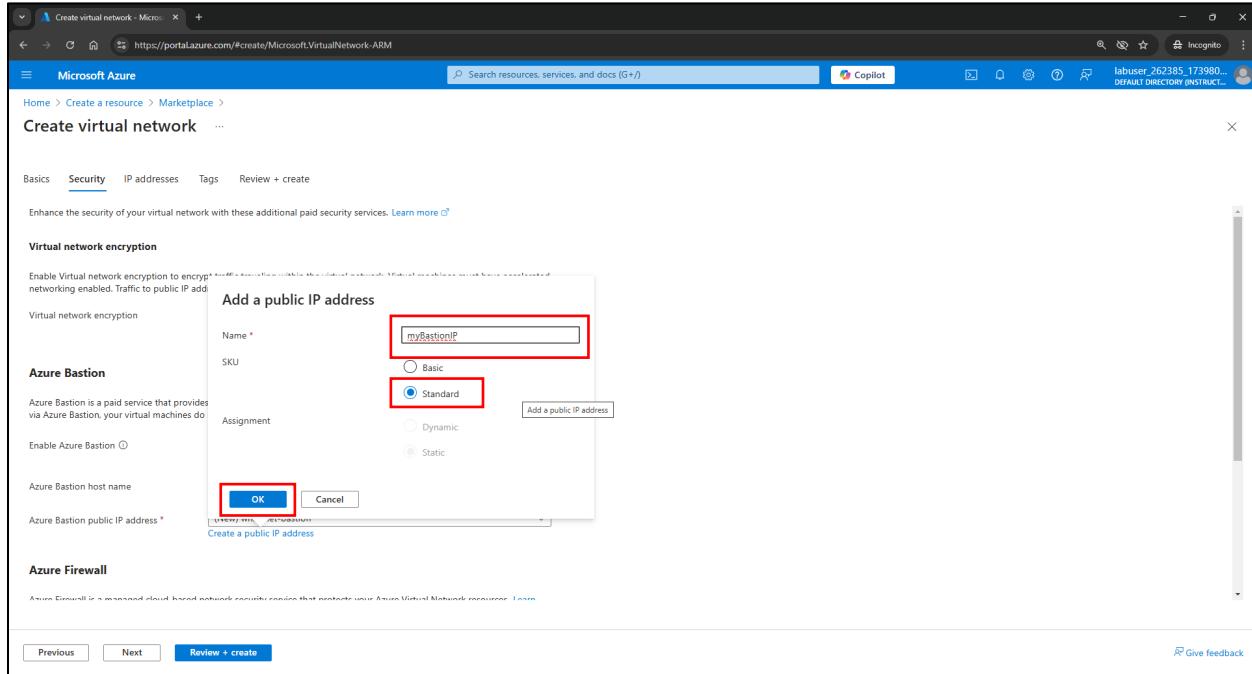
Select **Create a public IP address**

The screenshot shows the 'Create virtual network' wizard on the 'Security' tab. The 'Enable Azure Bastion' checkbox is checked. In the 'Azure Bastion' section, the 'Azure Bastion host name' is set to 'myBastionIP'. The 'Azure Bastion public IP address' dropdown shows '(New) whiznet-bastion' with a red box around the 'Create a public IP address' button.

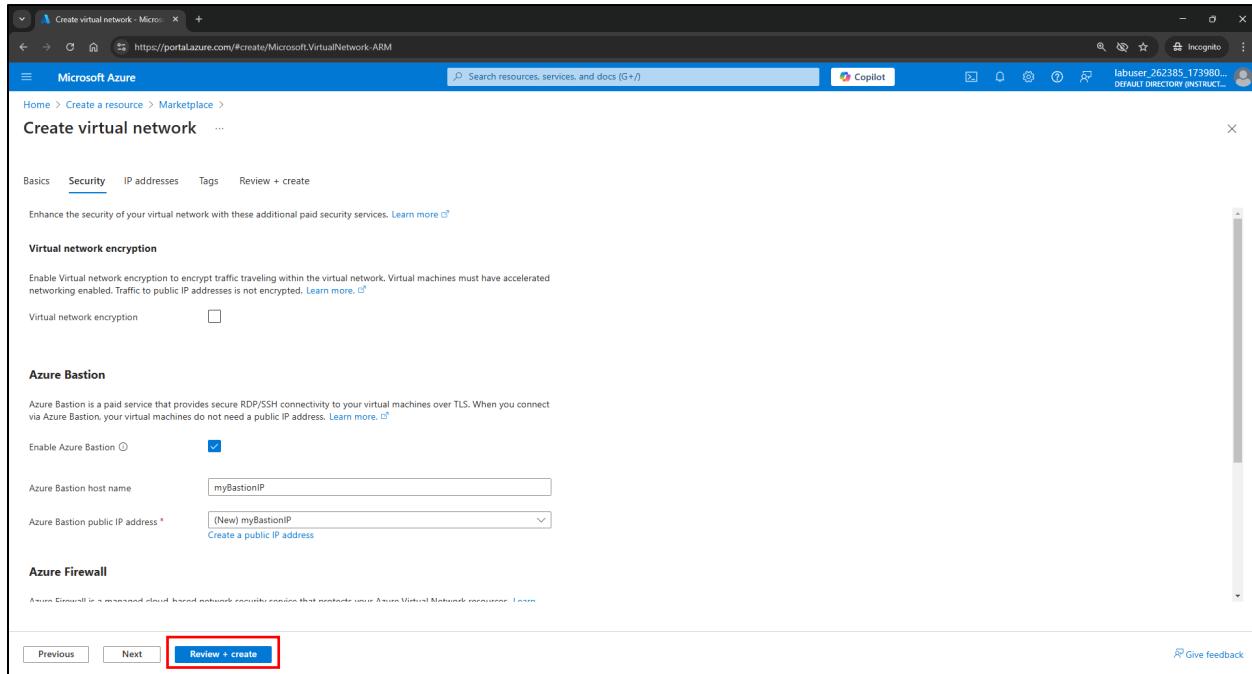
Enter **myBastionIP**

Select **Standard**

Select **OK**



Select **Review + Create**



Select Create

The screenshot shows the Microsoft Azure portal interface for creating a virtual network. The top navigation bar includes 'Microsoft Azure', a search bar, and various icons. Below it, the breadcrumb trail shows 'Home > Create a resource > Marketplace > Create virtual network'. The main content area has tabs for 'Basics', 'Security', 'IP addresses', 'Tags', and 'Review + create' (which is underlined). The 'Basics' section contains fields for Subscription (PAYG-Labs2), Resource Group (rg_eastus_262385_1_173980496982), Name (whizVNet), and Region (East US). The 'Security' section includes settings for Azure Bastion (Enabled), Public IP Address (myBastionIP), Azure Firewall (Disabled), and Azure DDoS Network Protection (Disabled). The 'IP addresses' section shows address spaces: 10.1.0.0/16 (65,536 addresses), myBackendSubnet (10.1.0.0/24) (256 addresses), and AzureBastionSubnet (10.1.1.0/26) (64 addresses). The 'Tags' section is currently empty. At the bottom, there are 'Previous', 'Next', and 'Create' buttons, with the 'Create' button highlighted by a red box.

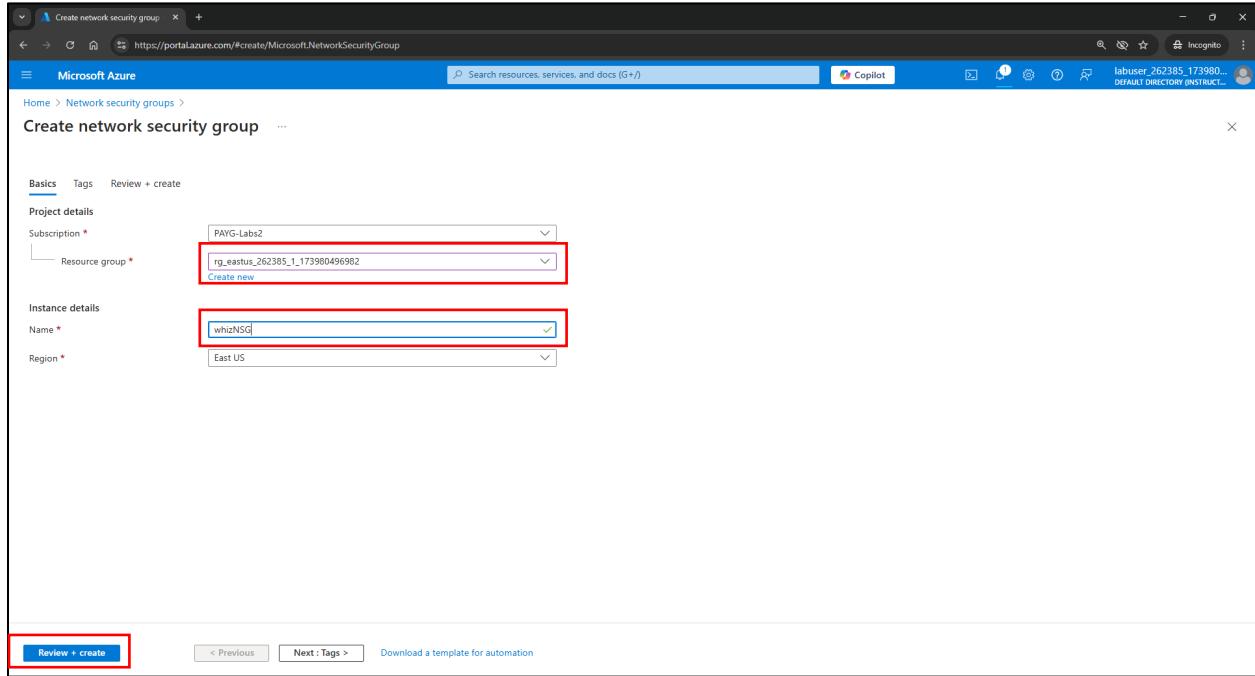
Navigate to Network Security Groups, select + Create

The screenshot shows the Microsoft Azure portal interface for managing Network Security Groups. The top navigation bar includes 'Microsoft Azure', a search bar, and various icons. Below it, the breadcrumb trail shows 'Home > Network security groups'. The main content area has a heading 'Network security groups' with a red box around it. It includes a '+ Create' button, a 'Manage view' dropdown, and filter options for 'Subscription equals all', 'Resource group equals all', 'Location equals all', and 'Add filter'. The message 'Showing 0 to 0 of 0 records.' is displayed above a table header with columns: 'Name ↑', 'Resource group ↑', 'Location ↑', 'Subscription ↑', and 'Flow log ↑'. In the center, there is a shield icon and the message 'No network security groups to display'. Below this, a sub-message says 'Create a network security group with rules to filter inbound traffic to, and outbound traffic from, virtual machines and subnets.' followed by a '+ Create network security group' button and a 'Learn more' link. At the bottom right, there is a 'Give feedback' link.

Select drop-down for Resource Group **rg_eastus_262385_1_173980496982**

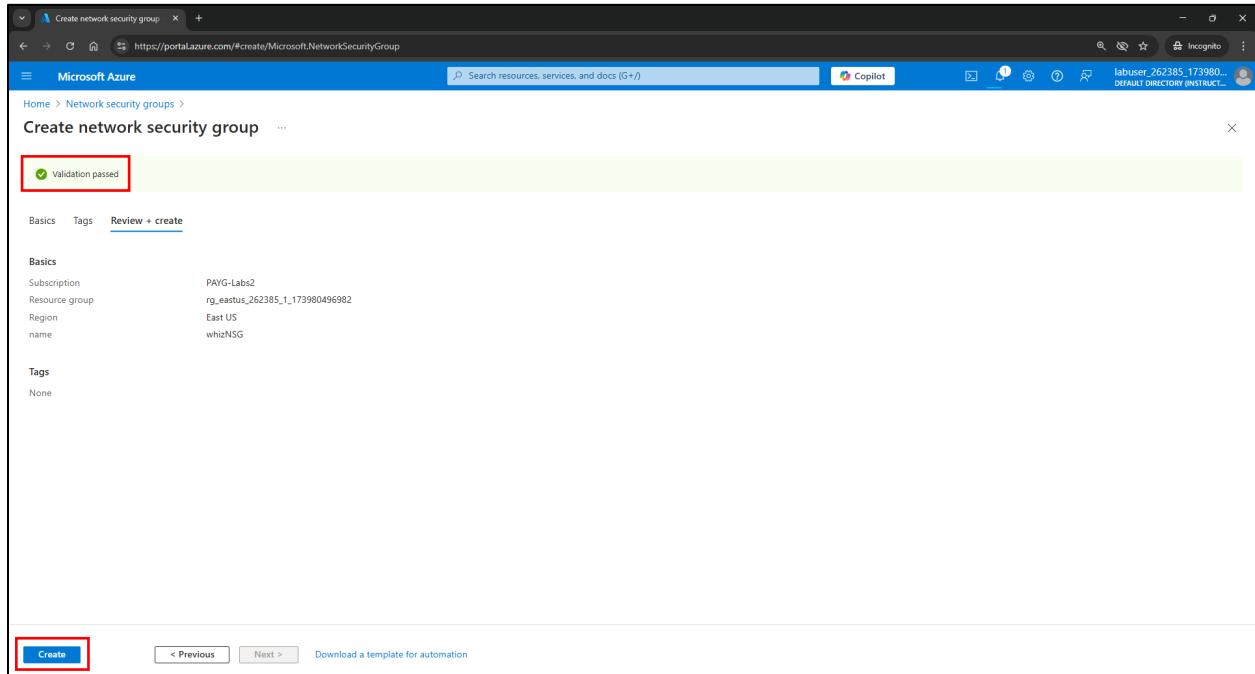
Enter **whizNSG** in Name

Select **Review + Create**



Validation Passed

Select **Create**



Select whizNSG

Name	Resource group	Location	Subscription	Flow log
whizNSG	rg_eastus_262385_1_173980496982	East US	PAYG-Labs2	No grouping

Select Settings drop down Select Inbound security rules

Priority	Name	Port	Protocol	Source	Destination	Action
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	AllowAzureLoadBalanc...	Any	Any	AzureLoadBalancer	Any	Allow
65500	DenyAllInBound	Any	Any	Any	Any	Deny
65000	AllowVnetOutBound	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	AllowinternetOutBound	Any	Any	Any	Internet	Allow
65500	DenyAllOutBound	Any	Any	Any	Any	Deny

Select + Add

The screenshot shows the Microsoft Azure portal interface for managing a Network Security Group (NSG). The left sidebar shows the navigation path: Home > Network security groups > whizNSG. The main content area is titled "whizNSG | Inbound security rules". At the top right of this section, there is a red box around the "+ Add" button. Below it, a table lists three security rules:

Priority	Name	Port	Protocol	Source	Destination	Action
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	AllowAzureLoadBalanc...	Any	Any	AzureLoadBalancer	Any	Allow
65500	DenyAllInBound	Any	Any	Any	Any	Deny

At the bottom of the page, there is a pagination control: Page 1 of 1.

- Source: Leave the default of **Any**.
- Source port ranges: Leave the default of *****.
- Destination: Leave the default of **Any**.
- Service: Leave the default of **Custom**.
- Destination port ranges: Enter *****.
- Protocol: Select **Any**.
- Action: Leave the default of **Allow**.
- Priority: Enter **100**.
- Name: Enter **whizNSGRule-AllowAll-All**

Select Add

The screenshot shows the Microsoft Azure portal interface for managing Network Security Groups. On the left, the navigation pane shows the 'Inbound security rules' section under 'Settings'. On the right, a modal dialog titled 'Add inbound security rule' is open, allowing the creation of a new security rule. The rule configuration is as follows:

- Source:** Any
- Source port ranges:** *
- Destination:** Any
- Destination port ranges:** *
- Service:** Custom
- Protocol:** Any
- Action:** Allow
- Priority:** 100
- Name:** whizNSGRule-AllowAll-All

The 'Add' button is highlighted with a red box at the bottom left of the dialog.

Inbound security rule created

The screenshot shows the Microsoft Azure portal interface for a Network Security Group named 'whizNSG'. The left sidebar navigation includes 'Overview', 'Activity log', 'Access control (IAM)', 'Tags', 'Diagnose and solve problems', and 'Settings' (which is expanded). Under 'Settings', the 'Inbound security rules' section is selected. The main content area displays a table of inbound security rules:

Priority ↑	Name ↑	Port ↑↓	Protocol ↑↓	Source ↑↓	Destination ↑↓	Action ↑↓
100	whizNSGRule-Allo...	Any	Any	Any	Any	Allow
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	AllowAzureLoadBalanc...	Any	Any	AzureLoadBalancer	Any	Allow
65500	DenyAllInBound	Any	Any	Any	Any	Deny

A red box highlights the first row (Priority 100, Name 'whizNSGRule-Allo...', Action 'Allow'). The URL in the browser address bar is https://portal.azure.com/#@instructorwhizlabs.onmicrosoft.com/resource/subscriptions/3e5ff226-7b86-4538-8eb7-e1638ad99ab/resourceGroups/rg_eastus_262385_1_173980496982/providers/Microsoft.Network/networkSecurityGroup/whizNSG/inboundSecurityRules.

Under Settings, select Outbound security rules

Select + Add

The screenshot shows the Microsoft Azure portal interface for a Network Security Group named 'whizNSG'. The left sidebar navigation includes 'Overview', 'Activity log', 'Access control (IAM)', 'Tags', 'Diagnose and solve problems', and 'Settings' (which is expanded). Under 'Settings', the 'Outbound security rules' section is selected. The main content area displays a table of outbound security rules:

Priority ↑↓	Name ↑↓	Port ↑↓	Protocol ↑↓	Source ↑↓	Destination ↑↓	Action ↑↓
65000	AllowVnetOutBound	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	AllowInternetOutBound	Any	Any	Any	Internet	Allow
65500	DenyAllOutBound	Any	Any	Any	Any	Deny

A red box highlights the 'Outbound security rules' link in the sidebar, and another red box highlights the '+ Add' button in the top navigation bar. The URL in the browser address bar is <https://go.microsoft.com/fwlink/?linkid=2174617>.

- Source: Leave the default of **Any**.
- Source port ranges: Leave the default of *****.
- Destination: Leave the default of **Any**.
- Service: Leave the default of **Custom**.
- Destination port ranges: Enter *****.
- Protocol: Select **TCP**.
- Action: Leave the default of **Allow**.
- Priority: Enter **100**.
- Name: Enter **whizNSGRule-AllowAll-TCP-Out**

Select Add

The screenshot shows the Microsoft Azure portal interface for managing Network Security Groups (NSGs). On the left, the navigation pane shows the current path: Home > Network security groups > whizNSG. The main content area displays the 'Outbound security rules' section, listing three existing rules: AllowVnetOutBound, AllowinternetOutBound, and DenyAllOutBound. To the right, a modal dialog box titled 'Add outbound security rule' is open, allowing the creation of a new rule. The form fields are as follows:

- Source:** Any
- Source port ranges:** *
- Destination:** Any
- Destination port ranges:** *
- Protocol:** TCP (selected)
- Action:** Allow (selected)
- Priority:** 100
- Name:** whizNSGRule-AllowAll-TCP-Out

The 'Add' button at the bottom left of the dialog is highlighted with a red box.

Outbound security rule added

The screenshot shows the Microsoft Azure portal interface for managing network security groups. The left sidebar shows the navigation path: Home > Network security groups > whizNSG. The main content area is titled "whizNSG | Outbound security rules". It displays a table of rules with columns: Priority, Name, Port, Protocol, Source, Destination, and Action. A new rule has been added with Priority 100, Name "whizNSGRule-AllowAll...", Port Any, Protocol TCP, Source Any, Destination Any, and Action Allow. This row is highlighted with a red box. Other existing rules include AllowVnetOutBound, AllowInternetOutBound, and DenyAllOutBound.

Navigate to Load balancer

Select Create

The screenshot shows the Microsoft Azure portal interface for managing load balancers. The left sidebar shows the navigation path: Home > Load balancing. The main content area is titled "Load balancing | Load Balancer". A prominent red box highlights the "+ Create" button at the top left of the page. Below it, there is a search bar and filter options. The main table displays 0 records. At the bottom, there is a message about Azure Load Balancer enabling highly available and scalable applications, followed by a "Create" button and a link to learn more about load balancers.

Select Resource group drop down, select **rg_eastus_262385_1_173980496982**

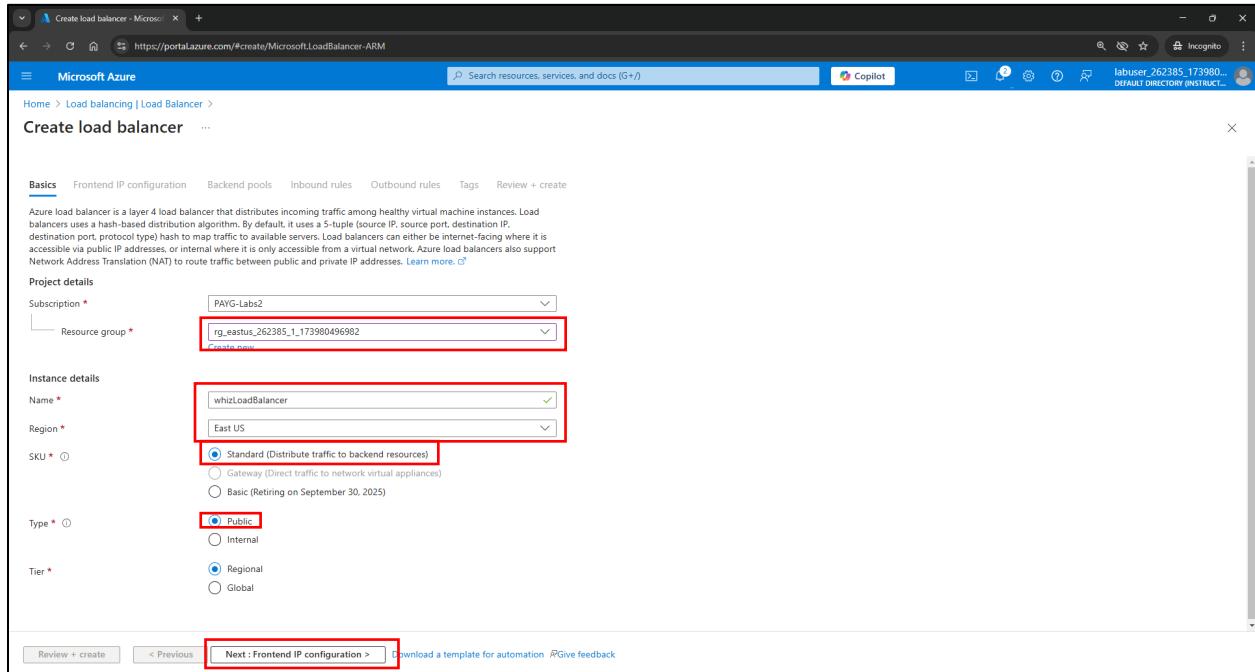
Enter name **whizLoadBalancer**

Region: **East US**

Select **Standard**

Select **Public**

Select **Next: Frontend IP configuration**



Enter **myFrontEndIP** under Name

IP version: **IPv4**

IP type: **IP address**

Select **Create new** under Public IP address

The screenshot shows the 'Add frontend IP configuration' step in the Azure portal. The 'Name' field is set to 'myFrontEndIP'. The 'IP version' is selected as 'IPv4'. The 'IP type' is selected as 'IP address'. In the 'Public IP address' dropdown, the option 'Create new' is selected and highlighted with a red box. The 'Save' button at the bottom right is also highlighted with a red box.

Under Add a public IP address, enter **loadbalancerip** under Name

Select **Save**

The screenshot shows the 'Add a public IP address' step in the Azure portal. The 'Name' field is set to 'loadbalancerip'. The 'SKU' is selected as 'Standard'. The 'Tier' is selected as 'Regional'. The 'Save' button at the bottom right is highlighted with a red box.

Gateway Load balancer: **None**

Select **Save**

The screenshot shows the 'Create load balancer' wizard in the Azure portal. The current step is 'Frontend IP configuration'. A red box highlights the 'Gateway Load balancer' dropdown, which is set to 'None'. Another red box highlights the 'Save' button at the bottom right of the form.

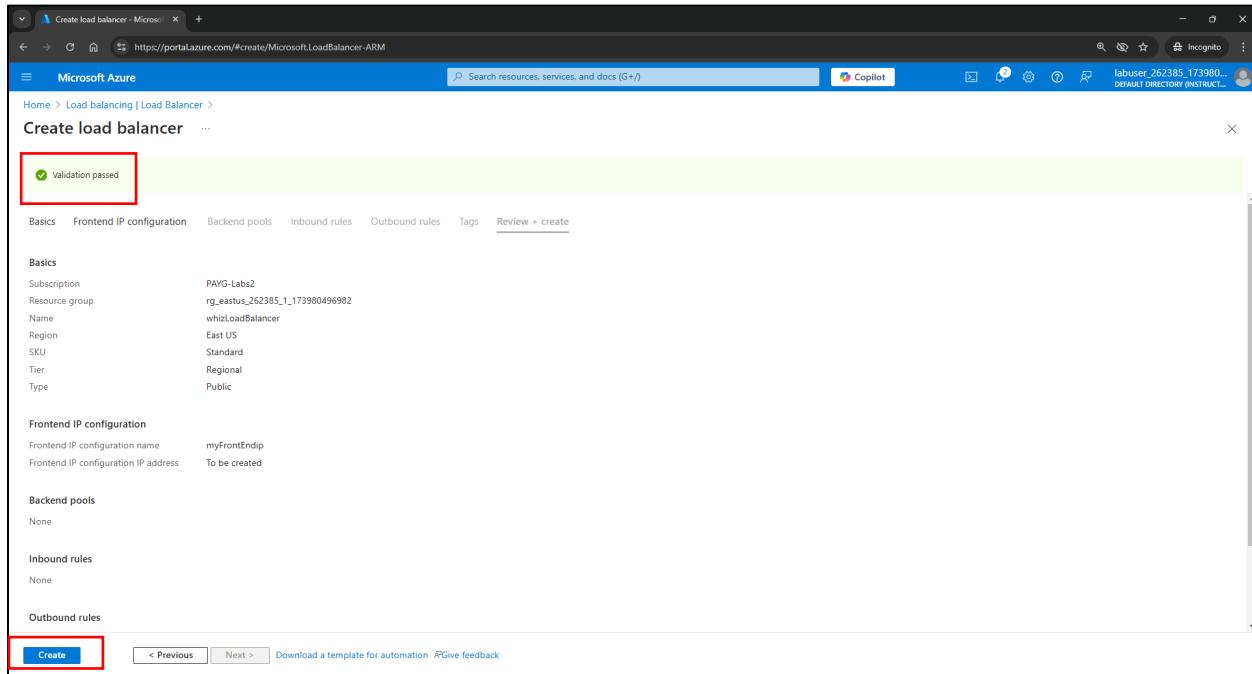
Frontend IP configuration created

Select **Review + Create**

The screenshot shows the 'Create load balancer' wizard in the Azure portal. The current step is 'Review + Create'. A red box highlights the 'Review + create' button at the bottom left of the page.

Validation Passed

Select Create

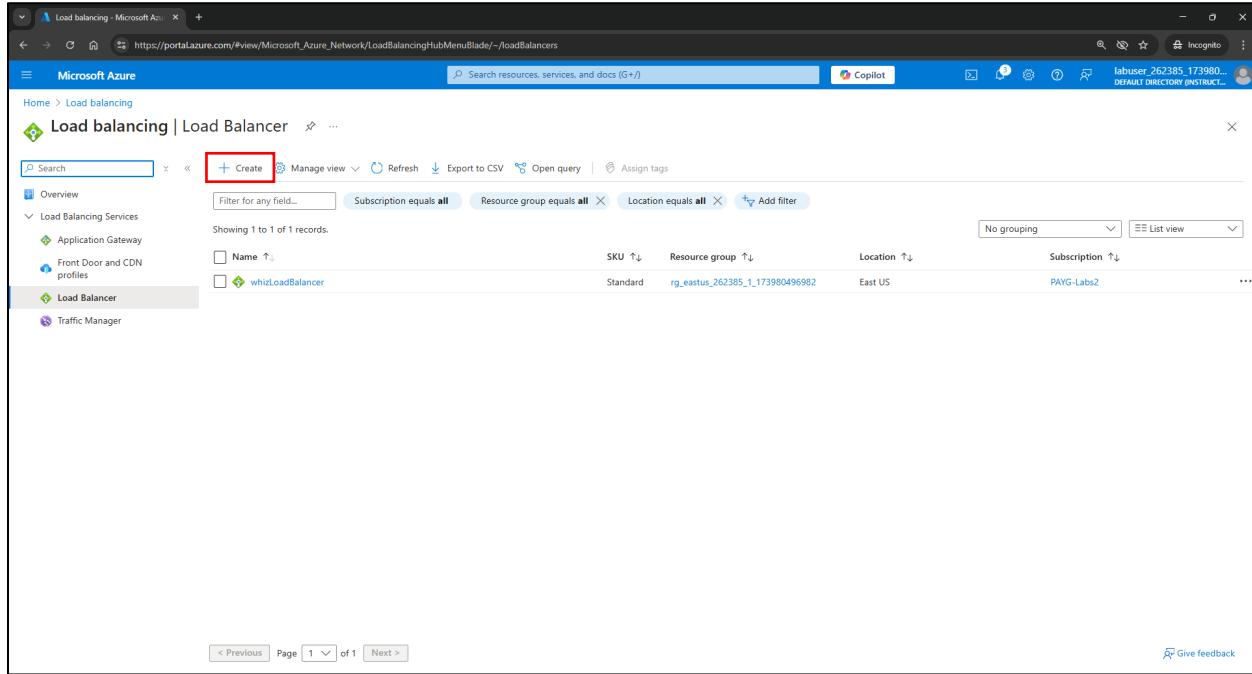


The screenshot shows the 'Create load balancer' wizard in the Azure portal. At the top, a green banner displays a checkmark icon and the text 'Validation passed'. Below this, the 'Review + create' tab is selected. The configuration details are as follows:

Category	Value
Subscription	PAYG-Labs2
Resource group	rg_eastus_262385_1_173980496982
Name	whizLoadBalancer
Region	East US
SKU	Standard
Tier	Regional
Type	Public
Frontend IP configuration	myFrontEndip Frontend IP configuration name: myFrontEndip Frontend IP configuration IP address: To be created
Backend pools	None
Inbound rules	None
Outbound rules	None

At the bottom of the page, there are navigation buttons: '< Previous', 'Next >', 'Download a template for automation', and 'Give feedback'. A red box highlights the 'Create' button.

From Load Balancer page, select + Create



The screenshot shows the 'Load balancing | Load Balancer' page in the Azure portal. In the top navigation bar, there is a blue button labeled '+ Create' which is highlighted with a red box. The page lists existing load balancers under the 'Load Balancing Services' section. One entry is shown:

Name	Resource group	Location	Subscription
whizLoadBalancer	rg_eastus_262385_1_173980496982	East US	PAYG-Labs2

At the bottom of the page, there are navigation buttons: '< Previous', 'Page 1 of 1', and 'Next >'. A red box highlights the '+ Create' button.

Enter Resource group **rg_eastus_262385_1_173980496982**

Name: **whizLoadBalancer-gw**

SKU: **Gateway**

Type: **Internal**

Select **Next: Frontend IP configuration**

Project details

Subscription * PAYG-Labs2

Resource group * rg_eastus_262385_1_173980496982

Name * whizLoadBalancer-gw

Region * East US

SKU * ○ Standard (Distribute traffic to backend resources)
● Gateway (Direct traffic to network virtual appliances)
○ Basic (Retiring on September 30, 2025)

Type * ○ Public
● Internal
○ Regional
○ Global

Review + create < Previous Next : Frontend IP configuration > Download a template for automation Give feedback

Select + Add a frontend IP configuration

Name	IP address	Virtual network	Subnet
Add a fronted IP configuration			

+ Add a fronted IP configuration

Name ↑↓ IP address ↑↓ Virtual network ↑↓ Subnet ↑↓

Add a fronted IP to get started

Review + create < Previous Next : Backend pools > Download a template for automation Give feedback

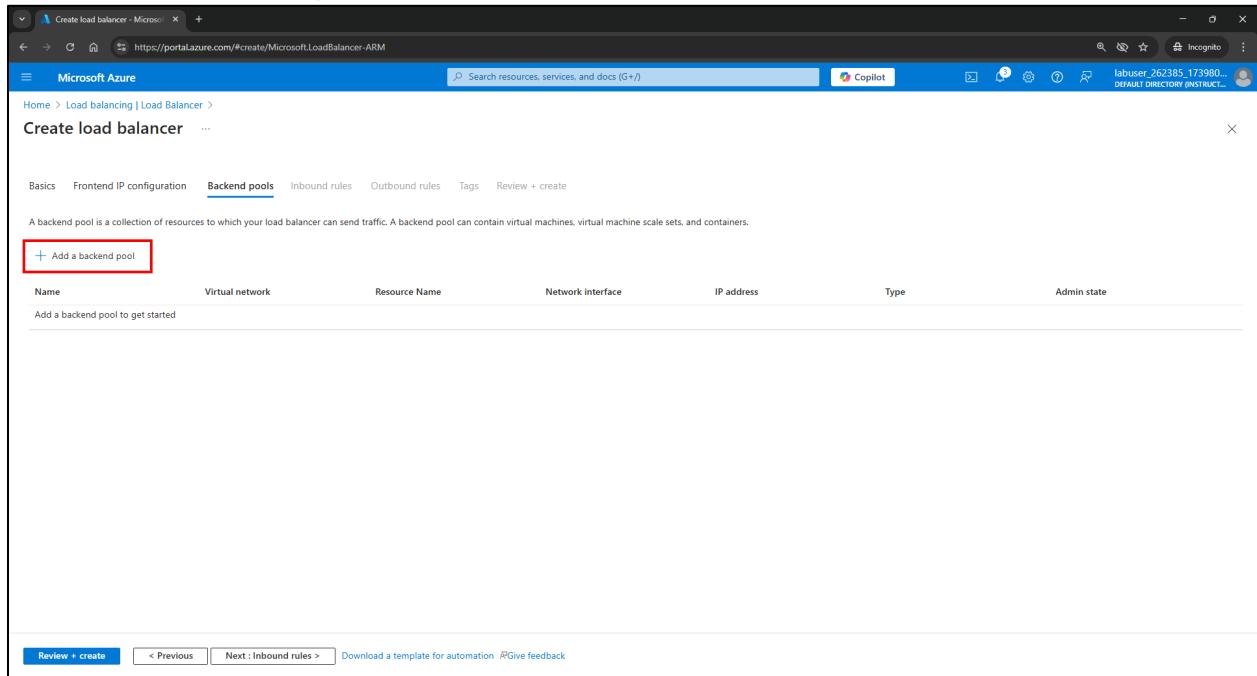
Name: **whizFrontEnd**
Subnet, select **myBackendSubnet**
Select **Save**

The screenshot shows the 'Create load balancer' wizard in the Microsoft Azure portal. The current step is 'Frontend IP configuration'. The 'Name' field is populated with 'whizFrontEnd'. The 'Virtual network' dropdown is set to 'whizVNet'. The 'Subnet' dropdown is set to 'myBackendSubnet (10.1.0.0/24)'. The 'Assignment' section shows 'Dynamic' selected. The 'Availability zone' dropdown is set to 'Zone-redundant'. At the bottom right, the 'Save' button is highlighted with a red box.

Select **Next: Backend pools**

The screenshot shows the 'Create load balancer' wizard in the Microsoft Azure portal. The current step is 'Frontend IP configuration'. The 'Name' field is populated with 'whizFrontEnd'. The 'IP address' dropdown is set to 'Dynamic'. The 'Virtual network' dropdown is set to 'whizVNet'. The 'Subnet' dropdown is set to 'myBackendSubnet'. At the bottom right, the 'Next: Backend pools >' button is highlighted with a red box.

Select + Add a backend pool



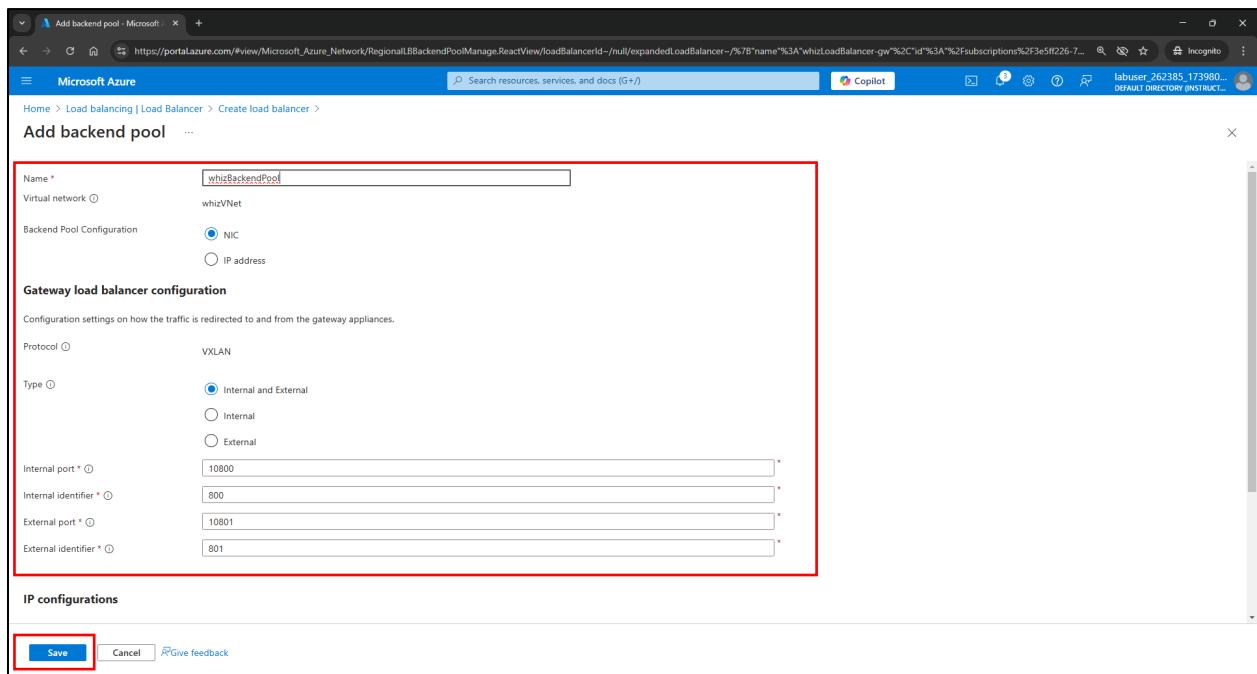
The screenshot shows the Microsoft Azure portal interface for creating a load balancer. The current step is 'Backend pools'. A red box highlights the '+ Add a backend pool' button. Below it is a table with columns: Name, Virtual network, Resource Name, Network interface, IP address, Type, and Admin state. A note says 'Add a backend pool to get started'. At the bottom are buttons for 'Review + create' and 'Next : Inbound rules >'. A feedback link is also present.

Enter **whizBackendPool**

Under **Gateway load balancer configuration**

- Type: Select **Internal and External**
- Internal port: Leave the default of **10800**
- Internal identifier: Leave the default of **800**
- External port: Leave the default of **10801**
- External identifier: Leave the default of **801**

Select **Save**



The screenshot shows the 'Add backend pool' configuration page. A large red box highlights the entire configuration section. Inside, there are fields for 'Name' (whizBackendPool), 'Virtual network' (whizVNet), 'Backend Pool Configuration' (NIC selected), and 'Gateway load balancer configuration' (Protocol: VXLAN, Type: Internal and External selected, Internal port: 10800, Internal identifier: 800, External port: 10801, External identifier: 801). At the bottom, a red box highlights the 'Save' button.

Backend pool created

Select **Next: Inbound rules**

The screenshot shows the Microsoft Azure portal interface for creating a load balancer. The top navigation bar includes 'Microsoft Azure', 'Search resources, services, and docs (G+)', 'Copilot', and user information 'labuser 262385 173980... DEFAULT DIRECTORY (INSTRUCT...)'. The main title is 'Create load balancer'. The 'Backend pools' tab is selected, showing a table with one row:

Name	Virtual network	Resource Name	Network interface	IP address	Type	Admin state
whizBackendPool	-	-	-	-	Internal and External	-

Below the table, there are buttons for 'Review + create', '< Previous', 'Next : Inbound rules >', 'Download a template for automation', and 'Give feedback'.

Select **+ Add a load balancing rule**

The screenshot shows the Microsoft Azure portal interface for creating a load balancer. The top navigation bar includes 'Microsoft Azure', 'Search resources, services, and docs (G+)', 'Copilot', and user information 'labuser 262385 173980... DEFAULT DIRECTORY (INSTRUCT...)'. The main title is 'Create load balancer'. The 'Inbound rules' tab is selected, showing a table with one row:

Name ↑↓	Frontend IP configuration ↑↓	Backend pool ↑↓	Health probe ↑↓	Frontend Port ↑↓	Backend port ↑↓
Add a rule to get started	-	-	-	-	-

Below the table, there is a section for 'Inbound NAT rule' with a note: 'An inbound NAT rule forwards incoming traffic sent to a selected IP address and port combination to a specific virtual machine.' A button '+ Add an inbound nat rule' is shown. There is also a table for 'Inbound NAT rule' with one row:

Name ↑↓	Frontend IP configuration ↑↓	Service ↑↓	Target ↑↓	Frontend Port ↑↓
Add a rule to get started	-	-	-	-

At the bottom, there are buttons for 'Review + create', '< Previous', 'Next : Outbound rule >', 'Download a template for automation', and 'Give feedback'.

Under **Add load balancing rule**, enter:

- Name: Enter **whizLBRule**
- IP Version: Select **IPv4 or IPv6** depending on your requirements.
- Frontend IP address: Select **whizFrontEnd**
- Backend pool: Select **whizBackendPool**
- Health probe: Select **Create new**

Add load balancing rule

whizLoadBalancer-gw

Load balancing rule distributes incoming traffic that is sent to a selected IP address and port combination across a group of backend pool instances. The load balancing rule uses a health probe to monitor the status of the backend pool instances. Only backend instances that the health probe considers healthy receive new traffic. [Learn more](#).

Name * whizLBRule

IP version * IPv4

Frontend IP address * whizFrontEnd (Dynamic)

Backend pool * whizBackendPool

High availability ports Enabled

Health probe * (new) whizHealthProbe (TCP:80)

Create new

Session persistence None

Idle timeout (minutes) * 4

Enable TCP Reset

Enable Floating IP

Save **Cancel** [Give feedback](#)

- Name: enter **whizHealthProbe**
- Select **TCP** in Protocol.
- Leave the rest of the defaults, and select **Save**.

Add load balancing rule

whizLoadBalancer-gw

Health probes are used to check the status of a backend pool instance. If the health probe fails to get a response from a backend instance then no new connections will be sent to that backend instance until the health probe succeeds again.

Name * WhizHealthProbe

Protocol * TCP

Port * 80

Interval (seconds) * 5

Used by Not used

Save **Cancel**

Create new

Session persistence None

Idle timeout (minutes) * 4

Enable TCP Reset

Save **Cancel** [Give feedback](#)

Session persistence: Select **None**

Select **Save**

The screenshot shows the 'Create load balancer' page in the Microsoft Azure portal. The 'Inbound rules' tab is selected. In the 'Load balancing rule' section, a new rule is being configured with the name 'whizLBRule'. The 'Session persistence' dropdown is set to 'None', which is highlighted with a red box. Other settings include 'IP version' as IPv4, 'Frontend IP address' as 'whizFrontEnd (Dynamic)', and 'Backend pool' as 'whizBackendPool'. The 'Health probe' dropdown shows '(new) whizHealthProbe (TCP-80)' with the 'Create new' option selected. The 'Save' button at the bottom right is also highlighted with a red box.

Select **Review + Create**

The screenshot shows the 'Create load balancer' page in the Microsoft Azure portal, specifically the 'Review + Create' step. The 'Inbound rules' tab is selected. The configuration for the 'whizLBRule' load balancing rule is displayed: Name 'whizLBRule', Frontend IP configuration 'whizFrontEnd', Backend pool 'whizBackendPool', Health probe 'whizHealthProbe', Frontend Port '0', and Backend port '0'. The 'Review + create' button at the bottom left is highlighted with a red box. Other buttons like 'Next : Outbound rule >' and 'Download a template for automation' are visible at the bottom.

Validation passed

Select Create

The screenshot shows the 'Create load balancer' wizard in the Azure portal. At the top, a green bar indicates 'Validation passed'. Below it, the 'Review + create' tab is selected. The configuration details are as follows:

Category	Setting
Subscription	PAYG-Labs2
Resource group	rg_eastus_262385_1_173980496982
Name	whizLoadBalancer-gw
Region	East US
SKU	Gateway
Tier	Regional
Type	Internal
Frontend IP configuration	whizFrontEnd
Frontend IP configuration IP address	Dynamic
Backend pools	whizBackendPool
Internal port	10800
Internal identifier	800
External port	10801
External identifier	801
Inbound rules	(empty)

At the bottom left, a red box highlights the 'Create' button. Navigation links 'Previous' and 'Next >' are also visible.

Navigate to Virtual Machines

Select + Create

The screenshot shows the 'Virtual machines' blade in the Azure portal. At the top, a red box highlights the '+ Create' button. The blade displays a message: 'No virtual machines to display' with a note to 'Create a virtual machine that runs Linux or Windows. Select an image from the marketplace or use your own customized image.' Below this, another red box highlights the '+ Create' button. Navigation links 'List view' and 'Give feedback' are at the bottom right.

Virtual machine name: **whizNVA**

Region: **East US**

Security type: **Standard**

Image: **Windows Server 2019 Datacenter – x64 Gen 2**

Scroll down

The screenshot shows the 'Create a virtual machine' wizard on the Microsoft Azure portal. The 'Instance details' section is highlighted with a red box. It includes fields for:

- Virtual machine name: whizNVA
- Region: (US) East US
- Availability options: Availability zone
- Zone options: Self-selected zone (selected), choosing up to 3 availability zones, one VM per zone.
- Availability zone: Zone 1
- Security type: Standard
- Image: Windows Server 2019 Datacenter - x64 Gen2

At the bottom, there are buttons for < Previous, Next : Disks >, Review + create, and Give feedback.

Size: **Standard_B2**

Username: **localadmin**

Password: **Password12345**

Select Disks

The screenshot shows the 'Create a virtual machine' wizard on the Microsoft Azure portal. The 'Administrator account' section is highlighted with a red box. It includes fields for:

- Username: localadmin
- Password: (redacted)
- Confirm password: (redacted)

Below this, the 'Inbound port rules' section is partially visible. At the bottom, there are buttons for < Previous, Next : Disks >, Review + create, and Give feedback. The 'Next : Disks >' button is specifically highlighted with a red box.

OS disk type: Standard SSD

Select Networking

The screenshot shows the 'Create a virtual machine' wizard in the Azure portal. The current step is 'Select OS disk'. The 'OS disk type' dropdown is set to 'Standard SSD (locally-redundant storage)', which is highlighted with a red box. Other options like 'Image default (127 GiB)' and 'Premium SSD (UltraSSD) storage' are also visible. The 'Next: Networking >' button is highlighted with a red box at the bottom left.

Select Next: Management

The screenshot shows the 'Create a virtual machine' wizard in the Azure portal. The current step is 'Select Next: Management'. The 'Networking' tab is selected. The 'Virtual network' dropdown is set to 'whizVNet', 'Subnet' is 'myBackendSubnet (10.1.0.0/24)', 'Public IP' is '(new) whizNVA-ip', 'NIC network security group' is 'whizNSG (Advanced)', and 'Configure network security group' is 'whizNSG'. The 'Next: Management >' button is highlighted with a red box at the bottom left.

Diagnostics, Boot Diagnostics, select **Disable** Select **Review + Create**

The screenshot shows the Azure portal interface for creating a virtual machine. The 'Monitoring' tab is active. In the 'Diagnostics' section, the 'Disable' option is selected. At the bottom of the page, the 'Review + create' button is highlighted with a red box.

Validation Passed

Select **Create**

The screenshot shows the Azure portal interface for creating a virtual machine. The 'Review + create' step is completed, indicated by a green bar with the message 'Validation passed'. The 'Create' button is highlighted with a red box at the bottom of the page.

From Load Balancer page, select **whizLoadBalancer-gw**

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo, a search bar, and various navigation links like 'Copilot', 'Copilot', 'Help & support', and 'Sign out'. Below the navigation bar, the main title is 'Load balancing | Load Balancer'. The left sidebar lists 'Load Balancing Services' with categories: Application Gateway, Front Door and CDN profile, Load Balancer, and Traffic Manager. Under 'Load Balancer', there are two resources: 'whizLoadBalancer' and 'whizLoadBalancer-gw', with 'whizLoadBalancer-gw' being the one selected and highlighted with a red box. The main content area displays a table with columns: SKU, Resource group, Location, and Subscription. The table shows two records: 'Standard' SKU for 'whizLoadBalancer' and 'Gateway' SKU for 'whizLoadBalancer-gw'. Both resources belong to the 'rg_eastus_262385_1_173980496982' resource group, located in 'East US', and are associated with the 'PAYG-Labs2' subscription. At the bottom of the page, there are navigation buttons for 'Page' (1 of 1) and a 'Give feedback' link.

Select **Settings** drop down

Select **Backend pools**

The screenshot shows the 'whizLoadBalancer-gw' Load Balancer settings page. The left sidebar shows the same structure as the previous screenshot. The main content area has a title 'whizLoadBalancer-gw' and a 'Move', 'Delete', 'Refresh', and 'Give feedback' button. On the right, there's a 'Essentials' panel with details like Resource group, Location, Subscription, SKU, and Tags. Below this is a 'Configure high availability and scalability for your applications' section with two cards: 'Balance IPv4 and IPv6 addresses' and 'Build highly reliable applications'. The 'Backend pools' section is highlighted with a red box. This section contains a table with columns: Name, Backend pool, Load balancing rule, Health probe, Tier, and Private IP address. It lists one entry: 'whizBackendPool' under 'Backend pool'. At the bottom, there are buttons for 'View frontend IP configuration', 'View backend pools', and 'View load balancing rules'.

Select Backend pool whizBackendPool(1)

The screenshot shows the Microsoft Azure portal interface for managing load balancers. On the left, the navigation pane shows 'Load balancing | Load Balancer' selected under 'Load Balancer'. The main area displays the 'whizLoadBalancer-gw | Backend pools' page. A table lists one backend pool: 'whizBackendPool (1)'. The 'Backend pool' column shows 'whizBackendPool', the 'Resource Name' column shows 'whizBackendPoc', and the 'IP address' column shows 'Internal and External'. The 'Type' column is '1'. The 'Rules count' column shows '1'. The 'Resource Status' and 'Admin status' columns are not visible. A red box highlights the 'whizBackendPool (1)' entry in the list.

Scroll down

Under **IP configuration**, select **+ Add**

The screenshot shows the 'whizBackendPool' configuration page. In the 'IP configurations' section, there are three entries: 'Internal identifier' (800), 'External port' (10801), and 'External identifier' (801). A red box highlights the '+ Add' button. Below this, a table lists IP configurations associated with the backend pool:

Resource Name	Resource group	Type	IP configuration	IP Address	Availability set
whizLBRule		Load balancing rule			

At the bottom, there are 'Save' and 'Cancel' buttons, and a 'Give feedback' link.

Select checkbox next to **WHIZNVA**

Select Add

The screenshot shows the 'Add IP configurations to backend pool' dialog in the Azure portal. On the left, there are fields for 'Internal identifier' (800), 'External port' (10801), and 'External identifier' (801). Below these are sections for 'IP configurations' and 'Used by'. In the 'IP configurations' section, a table lists one entry: 'WHIZNVA' (Resource Name), 'RG_EAST...' (Resource group), 'Virtual machine' (Type), 'ipconfig1' (IP configuration), and '10.1.0.5' (IP Address). A checkbox next to 'WHIZNVA' is highlighted with a red box. At the bottom of the dialog, there are 'Save', 'Cancel', and 'Give feedback' buttons, with the 'Add' button highlighted with a red box.

Select Save

The screenshot shows the 'whizBackendPool' configuration page in the Azure portal. It displays the same fields as the previous dialog: 'Internal identifier' (800), 'External port' (10801), and 'External identifier' (801). The 'IP configurations' section now shows the added entry: 'WHIZNVA' (Resource Name), 'RG_EASTUS_262385_1_173980496982' (Resource group), 'Virtual machine' (Type), 'ipconfig1' (IP configuration), and '10.1.0.5' (IP Address). Below the table is a 'Used by' section showing 'whizLBRule' (Load balancing rule). At the bottom, there are 'Save', 'Cancel', and 'Give feedback' buttons, with the 'Save' button highlighted with a red box.

Added to the whizBackendPool

The screenshot shows the Microsoft Azure portal interface for managing a Load Balancer. The left sidebar shows 'Load Balancing Services' with 'whizLoadBalancer' and 'whizLoadBalancer-gw' listed. The main area is titled 'whizLoadBalancer-gw | Backend pools'. A table lists the backend pool 'whizBackendPool (1)'. The table includes columns for Backend pool, Resource Name, IP address, Network interface, Type, Rules count, Resource Status, and Admin status. The first row in the table is highlighted with a red box.

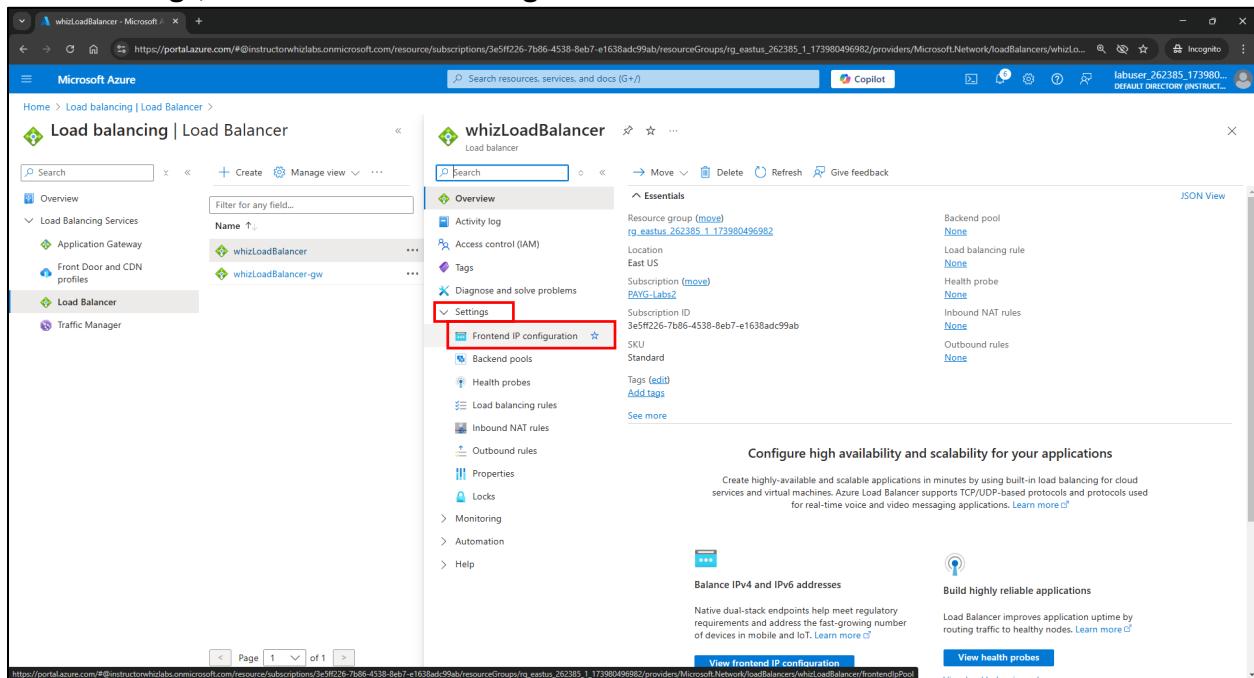
Backend pool	Resource Name	IP address	Network interface	Type	Rules count	Resource Status	Admin status
whizBackendPool (1)	whizNVA	10.1.0.5	Internal and Ext	1	Running	None	

Select whizLoadBalancer

The screenshot shows the Microsoft Azure portal interface for managing load balancers. The left sidebar shows 'Load Balancer' selected. The main area displays a list of load balancers. Two entries are visible: 'whizLoadBalancer' and 'whizLoadBalancer-gw'. The 'whizLoadBalancer' entry is highlighted with a red box.

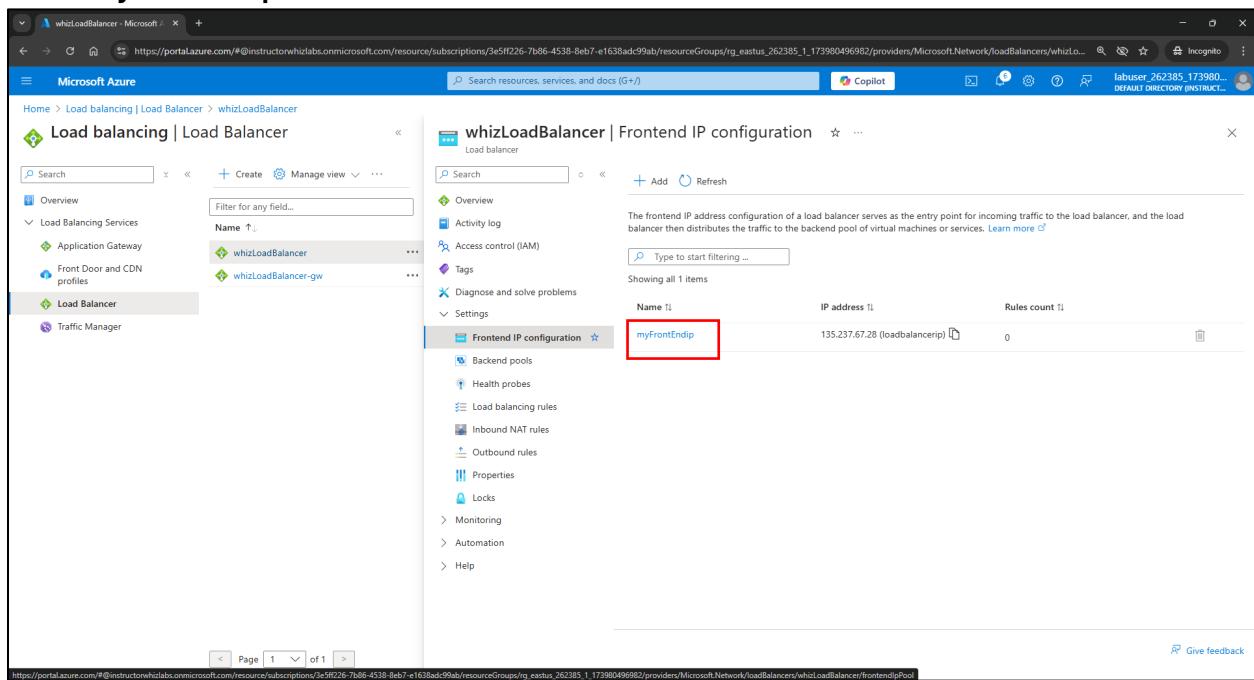
Name	SKU	Resource group	Location	Subscription
whizLoadBalancer	Standard	rg_eastus_262385_1_173980496982	East US	PAYG-Labs2
whizLoadBalancer-gw	Gateway	rg_eastus_262385_1_173980496982	East US	PAYG-Labs2

Under Settings, select Frontend IP configuration



The screenshot shows the Azure portal interface for managing a load balancer. On the left, the navigation pane shows 'Load balancing | Load Balancer' selected. In the main content area, 'whizLoadBalancer' is selected. Under the 'Settings' section, 'Frontend IP configuration' is highlighted with a red box. The right panel displays the 'Essentials' tab with various configuration details like Resource group, Location, and SKU.

Select myFrontEndip



The screenshot shows the 'Frontend IP configuration' page for 'whizLoadBalancer'. The table lists one item: 'myFrontEndip' with IP address 135.237.67.28. This row is highlighted with a red box. The left sidebar shows the 'Load Balancer' settings menu.

Name	IP address	Rules count
myFrontEndip	135.237.67.28 (loadbalancerip)	0

Select drop down next to **Gateway Load balancer**

Select **whizFrontEnd (10.1.0.4)**

Select **Save**

The screenshot shows the Microsoft Azure portal interface for managing a load balancer. In the center, there's a form for configuring a 'Frontend IP configuration'. The 'Name' field is set to 'myFrontEndip'. The 'Type' is 'Public'. Under 'IP type', 'IP address' is selected, and the 'Public IP address' dropdown shows 'loadbalancerip (135.237.67.28)'. The 'Gateway Load balancer' dropdown is open, showing 'whizFrontEnd (10.1.0.4)', which is highlighted with a red box. Below the dropdown, a section titled 'Used by' lists load balancing rules, inbound NAT rules, inbound NAT pools, and outbound rules using this IP address. At the bottom of the form, there are 'Save' and 'Cancel' buttons, both of which are highlighted with red boxes.

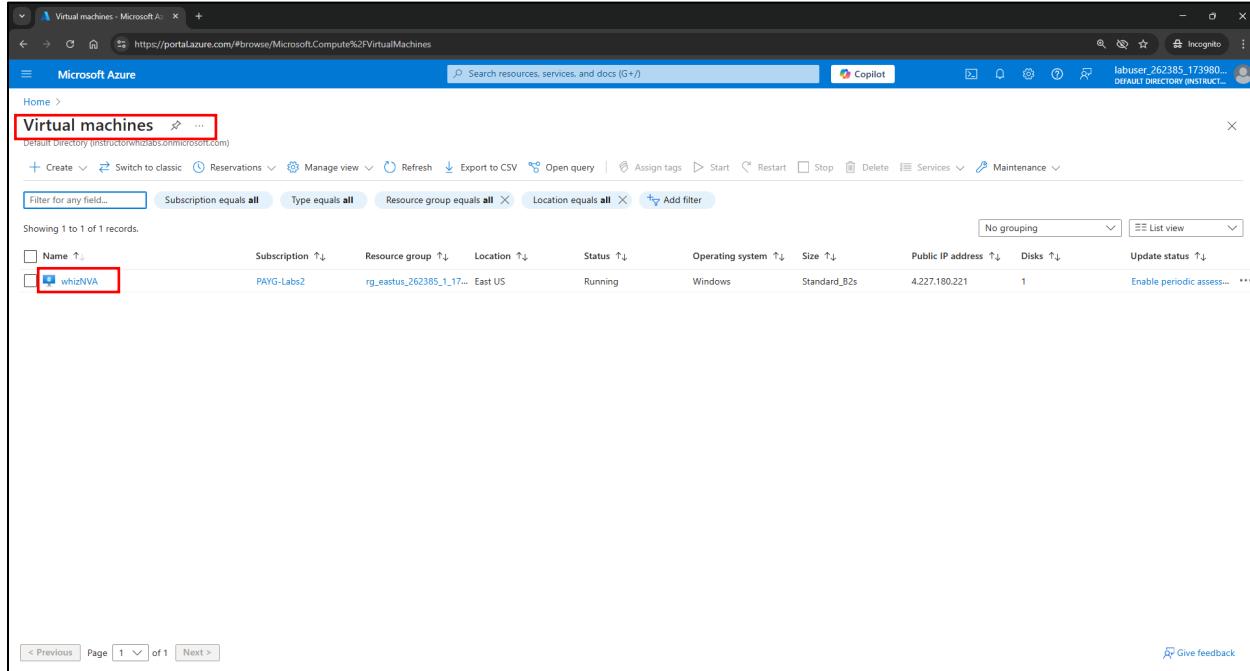
myFrontEndip added to the **Frontend IP configuration**

The screenshot shows the Microsoft Azure portal interface for managing a load balancer. On the left, the navigation pane shows 'Load Balancing | Load Balancer'. The main area displays the 'whizLoadBalancer' configuration. Under 'Frontend IP configuration', there is a table with one row:

Name	IP address	Rules count
myFrontEndip	135.237.67.28 (loadbalancerip)	0

Navigate to Virtual Machines

Select whizNVA



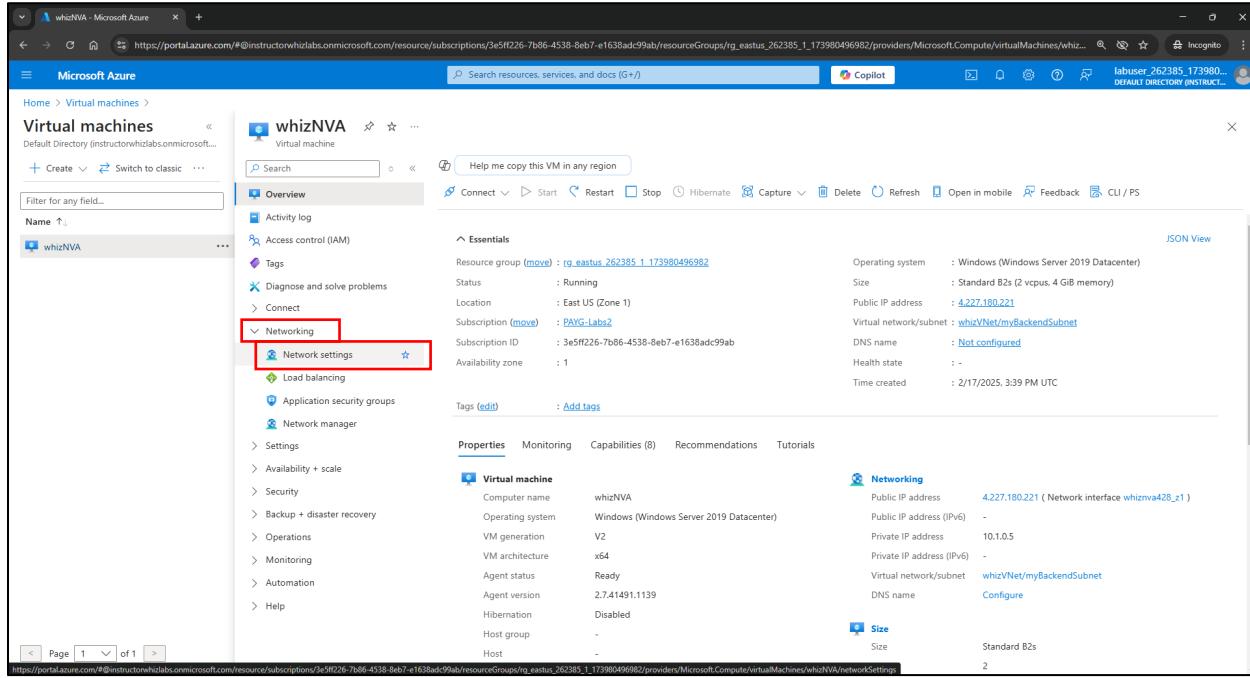
The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes links for Home, Virtual machines, Create, Switch to classic, Reservations, Manage view, Refresh, Export to CSV, Open query, Assign tags, Start, Restart, Stop, Delete, Services, Maintenance, and Copilot. A search bar at the top right says "Search resources, services, and docs (G+)".

The main content area displays a table of virtual machines. The columns are: Name, Subscription, Resource group, Location, Status, Operating system, Size, Public IP address, Disks, and Update status. There is one record shown:

Name	Subscription	Resource group	Location	Status	Operating system	Size	Public IP address	Disks	Update status
whizNVA	PAYG-Labs2	rg_eastus_262385_1_173980496982	East US	Running	Windows	Standard_B2s	4.227.180.221	1	Enable periodic assess...

At the bottom of the page, there are navigation buttons for < Previous, Page 1 of 1, and Next >, along with a "Give feedback" link.

Under Networking tab, select Network settings

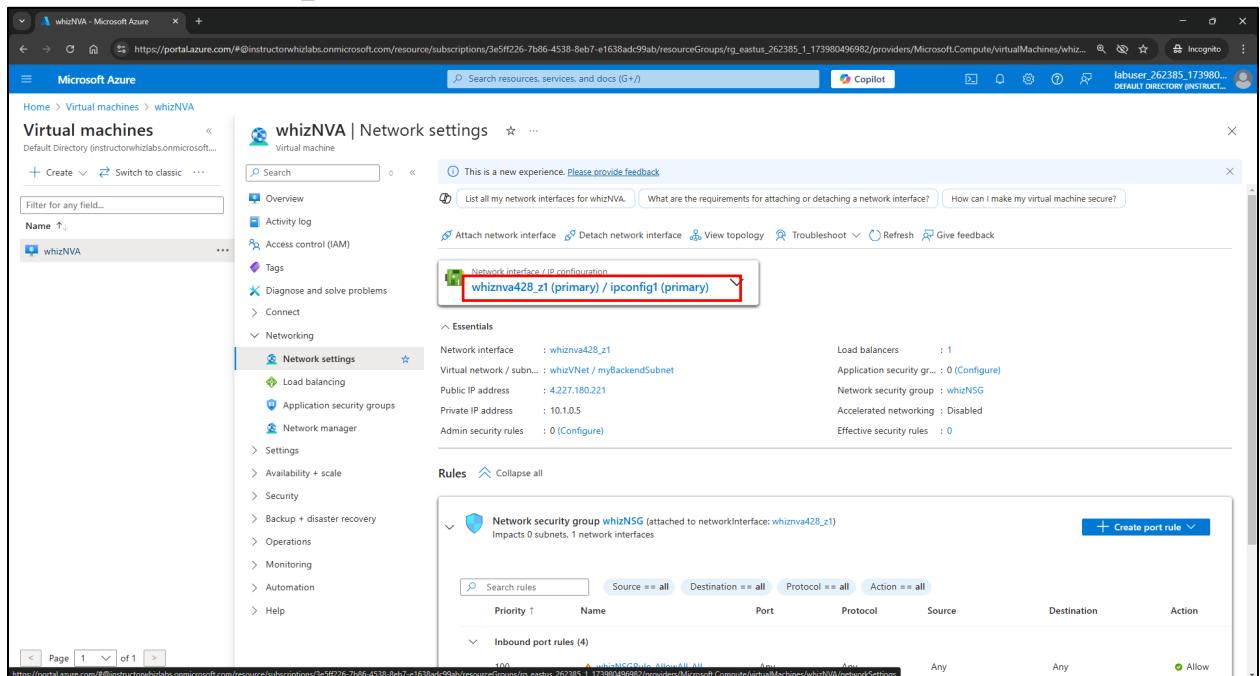


The screenshot shows the Microsoft Azure portal interface for the 'whizNVA' virtual machine. The left sidebar has a tree view with nodes like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Connect, Networking (which is expanded), Load balancing, Application security groups, Network manager, Settings, Availability + scale, Security, Backup + disaster recovery, Operations, Monitoring, Automation, and Help. The 'Networking' node under 'Network settings' is highlighted with a red box.

The main content area shows the 'Essentials' tab with details about the VM. The 'Properties' tab is selected, showing the VM's configuration. The 'Networking' tab is also visible, showing network interface details. The 'Size' tab is also present.

At the bottom of the page, there are navigation buttons for < Previous, Page 1 of 1, and Next >, along with a URL: https://portal.azure.com/#@instructorwhizlabs.onmicrosoft.com/resource/subscriptions/3e5ff226-7b86-4538-8eb7-e1638ad99ab/resourceGroups/rg_eastus_262385_1_173980496982/providers/Microsoft.Compute/virtualMachines/whizNVA/networkSettings.

Select NIC whiznva428_z1

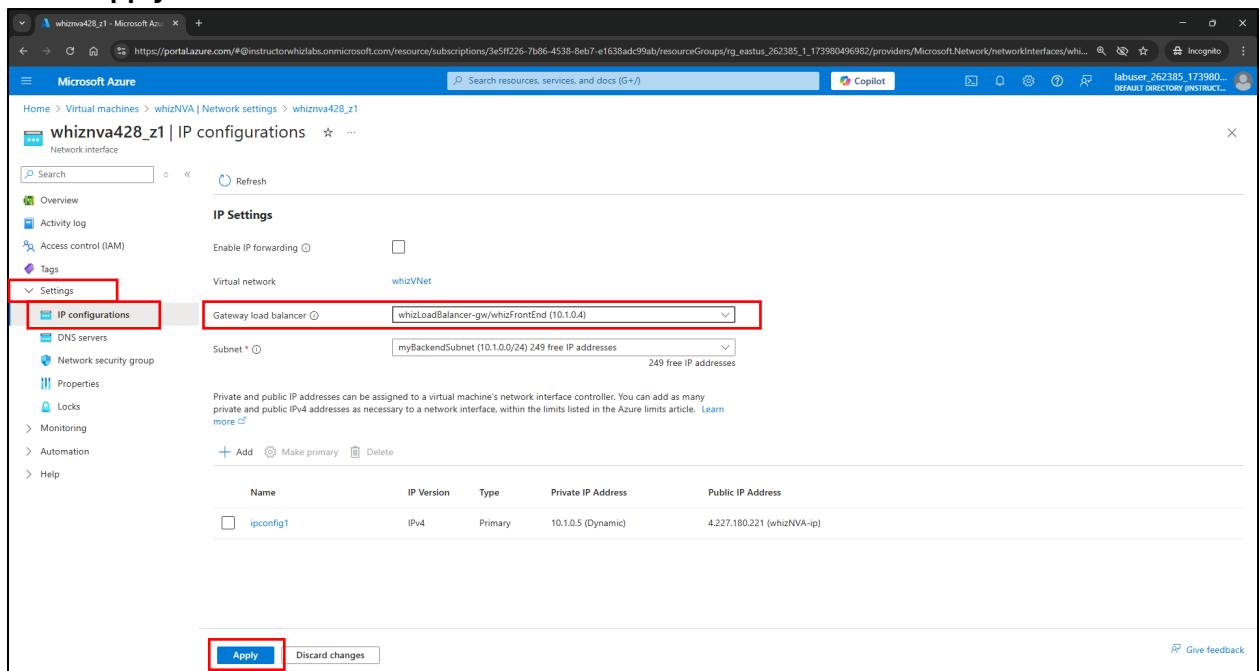


This screenshot shows the Microsoft Azure portal interface for managing a virtual machine named 'whizNVA'. The left sidebar shows the navigation path: Home > Virtual machines > whizNVA. The main content area is titled 'whizNVA | Network settings'. The 'Network settings' tab is currently selected. On the right, there is a summary of the network interface 'whiznva428_z1', including its public IP address (4.227.180.221), private IP address (10.1.0.5), and security group (whizNSG). Below this, the 'Rules' section shows an inbound port rule for port 100. At the bottom, there is an 'Apply' button.

Under **Settings** drop down, select **IP configuration**

Under **Gateway load balancer**, select drop down for **whizLoadBalancer-gw/whizFrontEnd**

Select **Apply**



This screenshot shows the Microsoft Azure portal interface for managing the IP configurations of the 'whiznva428_z1' network interface. The 'IP configurations' tab is selected. In the 'IP Settings' section, the 'Gateway load balancer' dropdown is highlighted with a red box and set to 'whizLoadBalancer-gw/whizFrontEnd (10.1.0.4)'. Below this, the 'Subnet' dropdown is set to 'myBackendSubnet (10.1.0.0/24) 249 free IP addresses'. At the bottom, there is an 'Apply' button highlighted with a red box.

Navigate to Lab Validation tab

Select Validation

Select Validate My Lab

The screenshot shows the Great Learning Lab Validation interface. At the top, there are tabs for 'Lab Overview', 'Lab Steps', and 'Lab Validation'. The 'Lab Validation' tab is currently selected and highlighted with a red box. Below this, a section titled 'Check your Validation' contains a note: 'If any checks fail, you can use the remaining time for the Lab to work on making the checks pass. Click Validate My Lab again to rerun the checks at any time.' A red box highlights the 'Validate My Lab' button. To the right, there's a summary box showing '0h 20m 59s left' with three buttons: 'End Lab' (red), 'Open Console' (orange), and 'Validation' (green, which is also highlighted with a red box). On the far right, there's a sidebar for 'Lab Credentials' with fields for 'User Name' (labuser_262385_173980496982@instru...), 'Password' (Pf#MezZBxO6%), and 'Resource Group' (rg_eastus_262385_1_173980496982). At the bottom right, there are 'Submit Feedback' and 'Share' buttons.

Navigate to Resource Groups

Select Resource group rg_eastus_262385_1_1739804496982

Select Delete resource group

The screenshot shows the Microsoft Azure Resource Groups page. The URL is https://portal.azure.com/#@instructorwhizlabs.onmicrosoft.com/resource/subscriptions/3e5ff226-7b06-4538-8eb7-e1638adc99ab/resourceGroups/rg_eastus_262385_1_173980496982/overview. The left sidebar shows 'Resource groups' with a red box around it. In the main area, a list of resource groups is shown, with 'rg_eastus_262385_1_173980496982' highlighted by a red box. The top navigation bar has a 'Delete resource group' button highlighted with a red box. The page displays details for the selected resource group, including its name, subscription, location, and tags. Below this, a table lists various resources (Name, Type, Location) with their corresponding icons and details.

Name	Type	Location
loadbalancerip	Public IP address	East US
myBastionIP	Bastion	East US
myBastionIP	Public IP address	East US
whizLoadBalancer	Load balancer	East US
whizLoadBalancer-gw	Load balancer	East US
whizNSG	Network security group	East US
whizNVA	Virtual machine	East US
whizNVA-ip	Public IP address	East US
whiznva428_z1	Network Interface	East US

Copy / past Resource Group name in **Enter resource group name to confirm deletion** box
 Select checkbox next to **Apply force delete for selected Virtual machines and Virtual machine scale sets**
Select Delete

The following resource group and all its dependent resources will be permanently deleted.

Resource group to be deleted

<input type="checkbox"/> rg_eastus_262385_1_173980496982	
--	--

Dependent resources to be deleted (11)
 All dependent resources, including hidden types, are shown

Name	Resource type
loadbalancerip	Public IP address
myBastionIP	Public IP address
whizLoadBalancer	Load balancer
whizLoadBalancer-gw	Load balancer
whizNSG	Network security group
whizNVA	Virtual machine
whizNVA-ip	Public IP address
whiznva428_z1	Network interface
whizNVA_ODisk_1_e1e9d1b5b213472da45f9f	Disk
whizVNet	Virtual network

Apply force delete for selected Virtual machines and Virtual machine scale sets

Enter resource group name to confirm deletion :

Delete **Cancel**

Select Delete

The following resource group and all its dependent resources will be permanently deleted.

Resource group to be deleted

<input type="checkbox"/> rg_eastus_262385_1_173980496982	
--	--

Dependent resources to be deleted (11)
 All dependent resources, including hidden types, are shown

Name	Resource type
loadbalancerip	Public IP address
myBastionIP	Public IP address
whizLoadBalancer	Load balancer
whizNSG	Network security group
whizNVA	Virtual machine
whizNVA-ip	Public IP address
whiznva428_z1	Network interface
whizNVA_ODisk_1_e1e9d1b5b213472da45f9f	Disk
whizVNet	Virtual network

Apply force delete for selected Virtual machines and Virtual machine scale sets

Enter resource group name to confirm deletion :

Delete confirmation

Deleting this resource group and its dependent resources is a permanent action and cannot be undone.

Delete **Go back**

Delete **Cancel**

Normally, would delete everything, but Business WhizLabs does not allow us to delete Resource Groups

The screenshot shows the Microsoft Azure portal interface. The URL in the address bar is https://portal.azure.com/#@instructorwhizlabs.onmicrosoft.com/resource/subscriptions/3e5f226-7b86-4538-8eb7-e1638adc99ab/resourceGroups/rg_eastus_262385_1_173980496982/overview. The page title is "rg_eastus_262385_1_173980496982 - Microsoft Azure".

Resource groups (Default Directory: instructorwhizlabs.onmicrosoft.com)

rg_eastus_262385_1_173980496982 - Resource group

Overview

Essentials

- Subscription (move) : PAYG-Labs
- Subscription ID : 3e5f226-7b86-4538-8eb7-e1638adc99ab
- Location : East US
- Tags (edit) : CreationTime : 1739804969

Resources

Name	Type	Location
loadbalancerip	Public IP address	East US
myBastionIP	Bastion	East US
myBastionIP	Public IP address	East US
whizLoadBalancer	Load balancer	East US
whizLoadBalancer-gw	Load balancer	East US
whizNSG	Network security group	East US
whizNVA	Virtual machine	East US
whizNVA-ip	Public IP address	East US

Error Message: Delete resource group rg_eastus_262385_1_173980496982 failed
Failed to delete resource group rg_eastus_262385_1_173980496982: The client 'labuser_262385_1739804966591@instructorwhizlabs.onmicrosoft.com' with object id '8abb25d7-131c-4741-84fd-010fb1f5524' does not have authorization to perform this action. 'Microsoft.Resources/subscriptions/resourceGroups/delete' over scope '/subscriptions/3e5f226-7b86-4538-8eb7-e1638adc99ab/resourceGroups/rg_eastus_262385_1_173980496982' or the scope is invalid. If access was recently granted, please refresh your credentials. (Code: AuthorizationFailed)