

Software Engineering Lesson Project

Project Subject: Cloud Services System

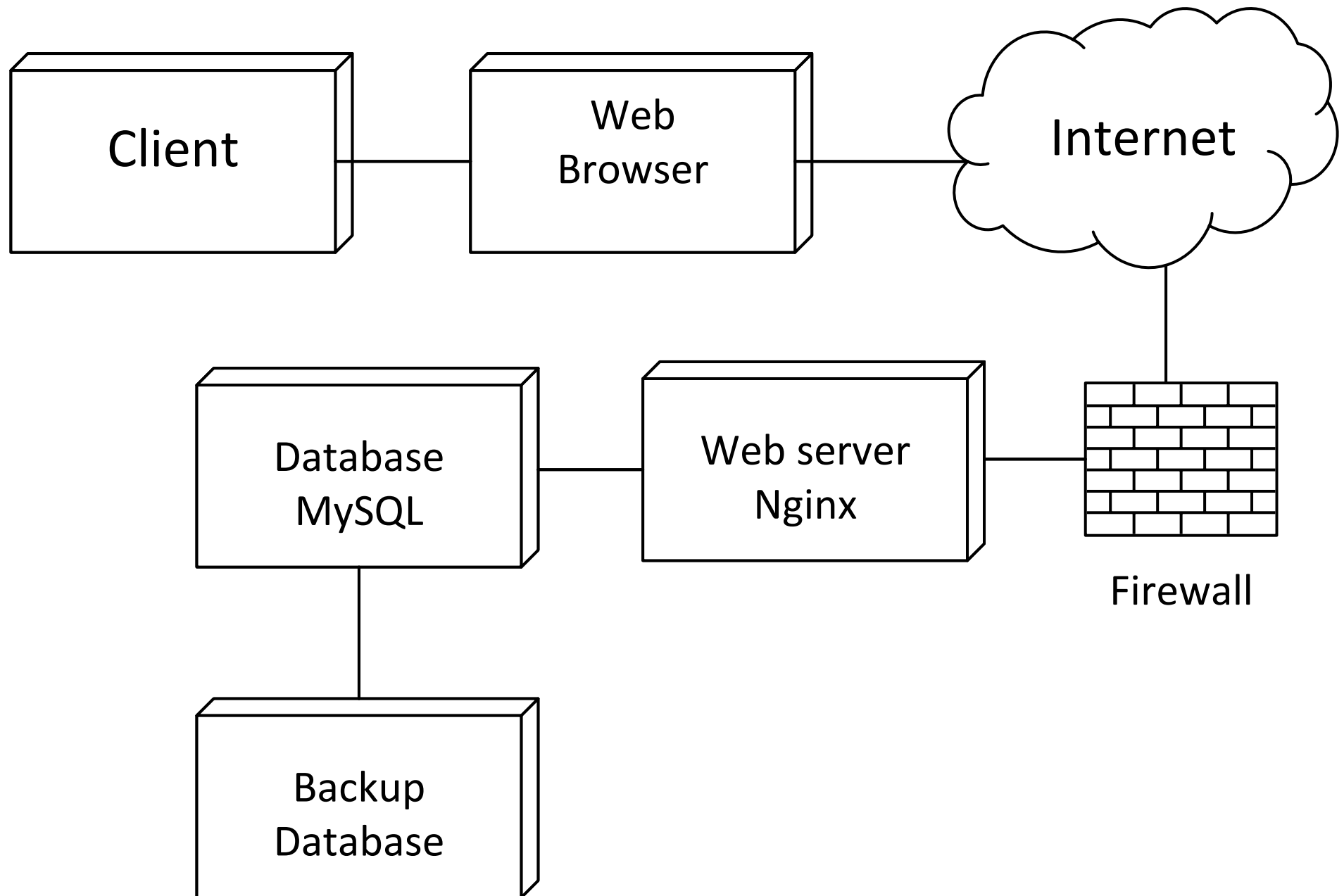
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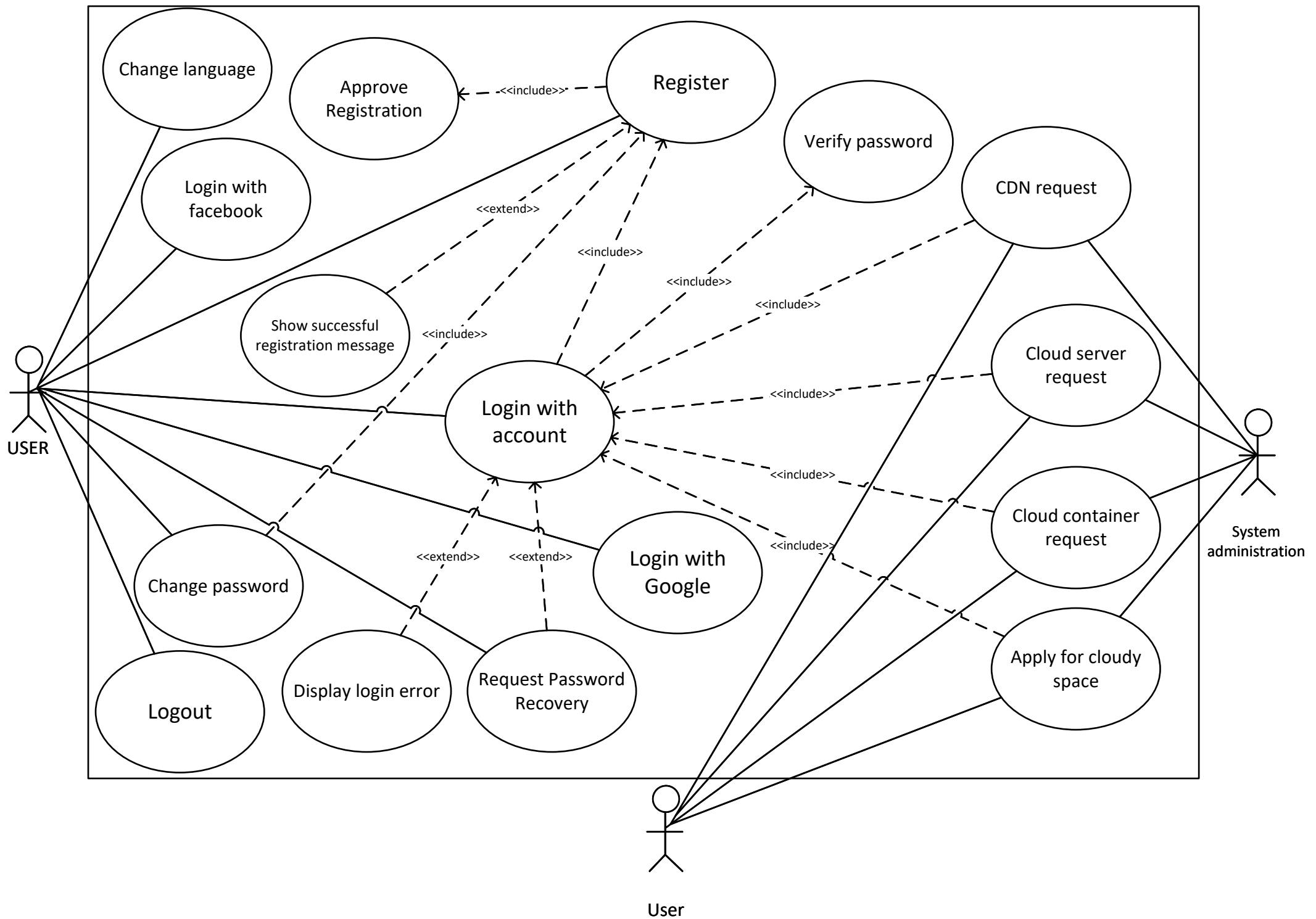
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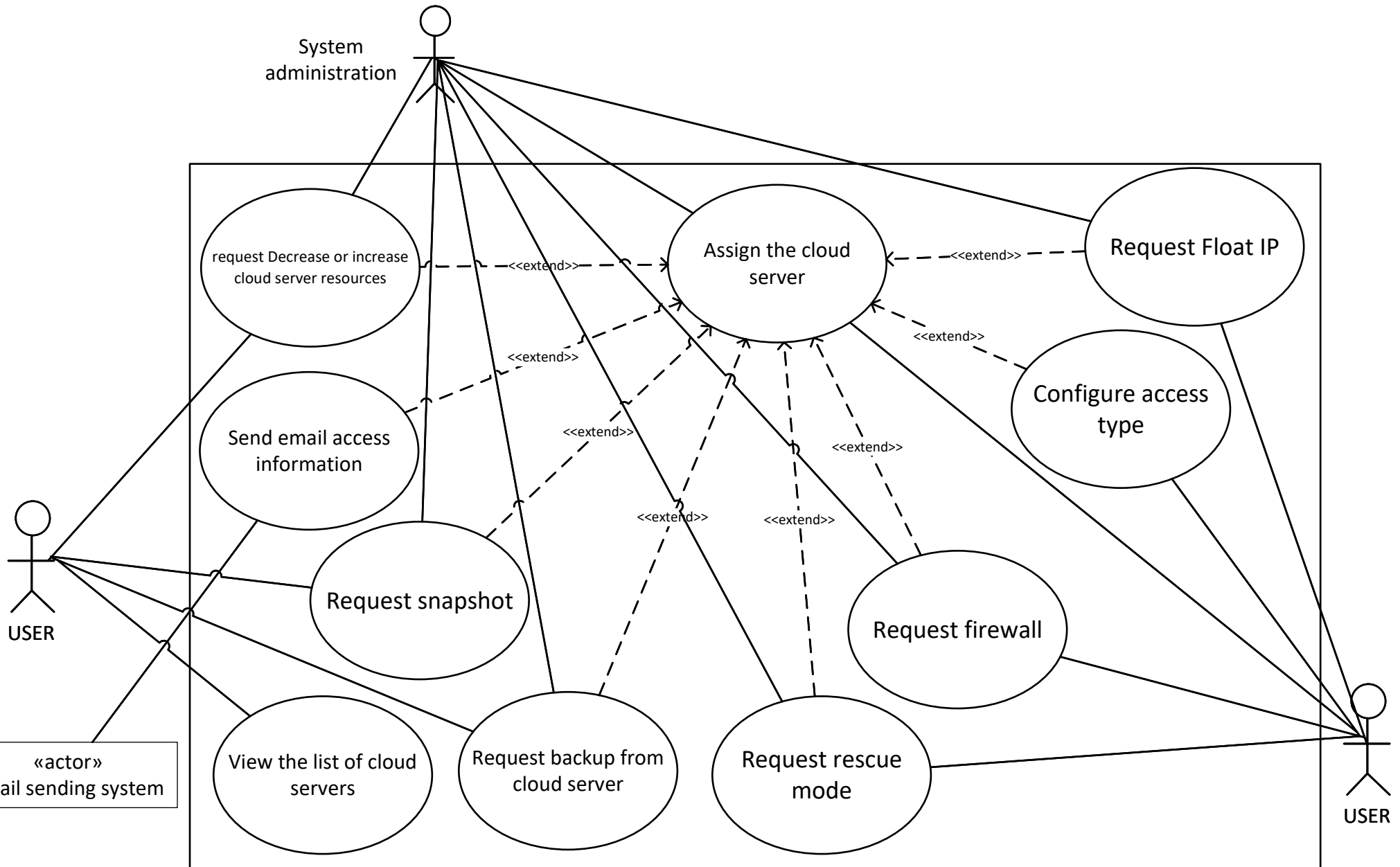
Deployment Diagram



Use Case Diagram



Infrastructure as a service (IaaS)



Platform as a service (PaaS)

«actor»
Email sending system

System
administration

USER

USER

Send application
invoice to email

request permanent
disk

Request multiple
namespaces

View the list of cloud
containers

Monitoring of
consumption
resources

Request Internet IP

Assign the cloud
container

Configure network

Request load
balancing

View cloud
container logs

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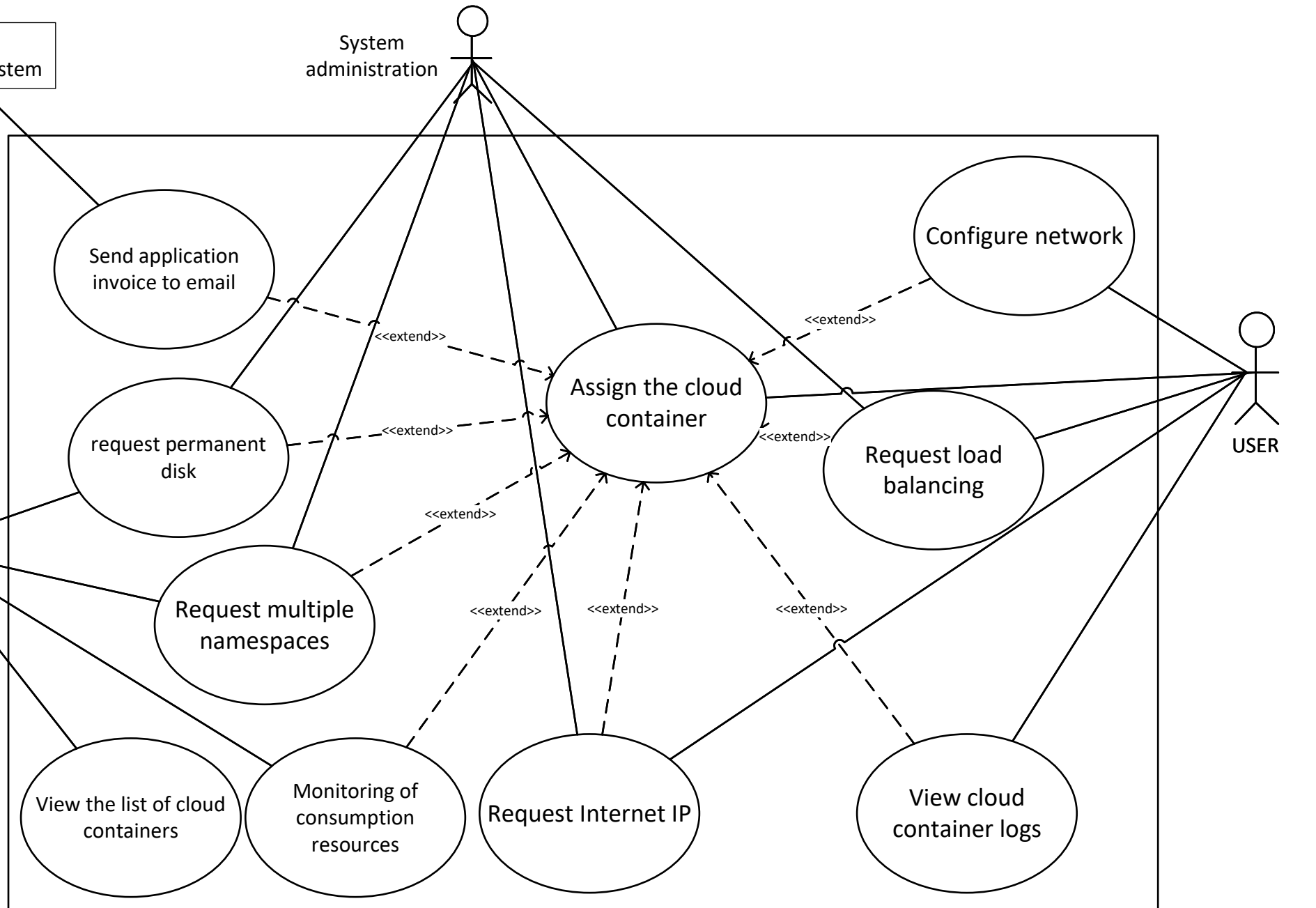
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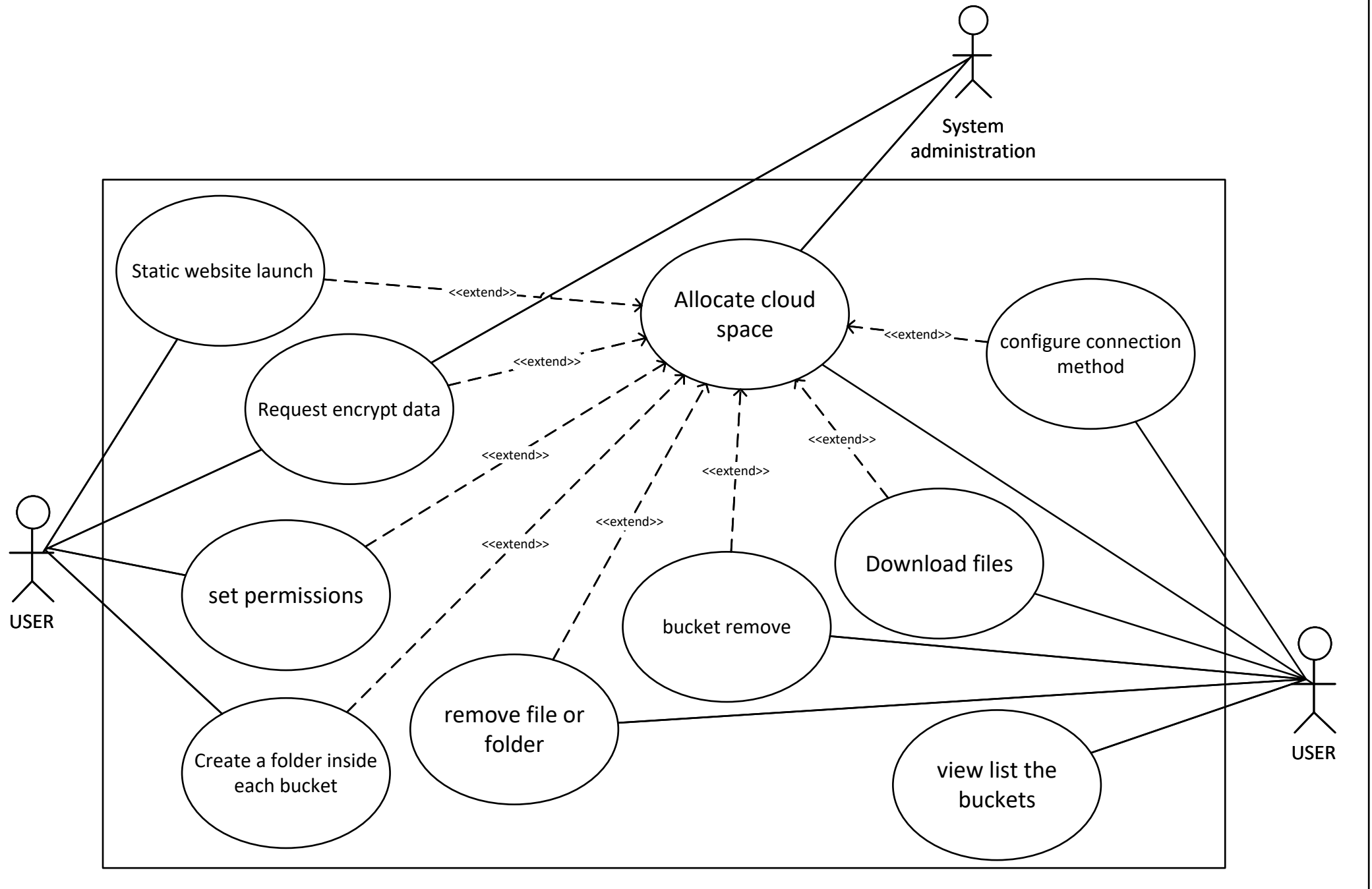
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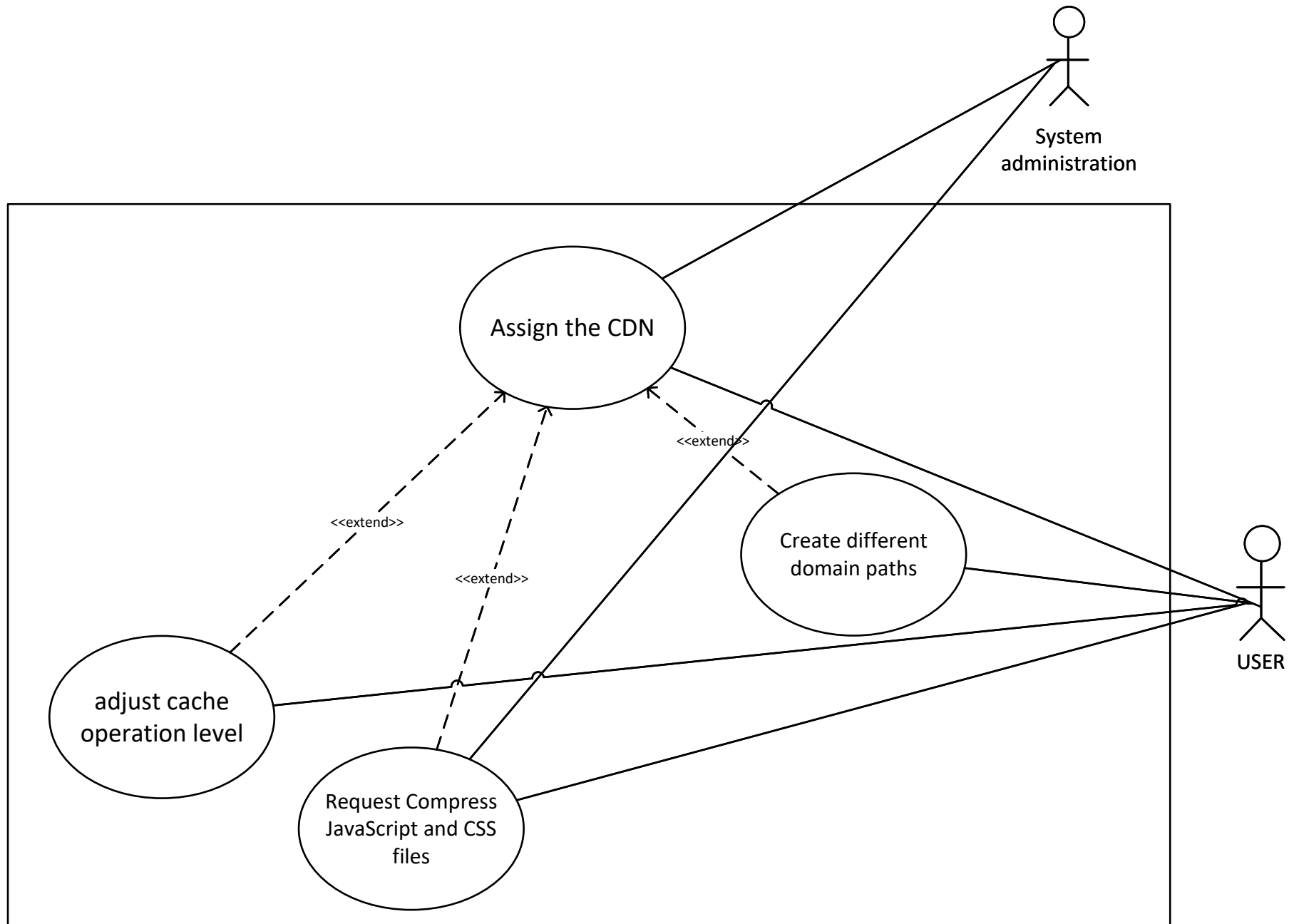
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Cloud Storage



Content Delivery Network (CDN)



Description of Use Case

Name	Change language
Short Description	In this UC, the user can change the system language
Preconditions	does not have
Postcondition	The system language changes
Failure Situations	Network interruption
Postcondition in case of failure	The system language does not change and the user has to try again
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<ol style="list-style-type: none"> 1) Select the desired language 2) Language confirmation 3) The system language changes 4) Show main menu
Extensions /Variations	<ol style="list-style-type: none"> (1.1) The desired language is not available <ol style="list-style-type: none"> 1. Display the appropriate message 2. Select another language (3.1) The system language does not change <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Approve Registration
Short Description	In this UC, user information is verified
Preconditions	correct of user information
Postcondition	Registration confirmation is done
Failure Situations	Network interruption
Postcondition in case of failure	Registration confirmation will not be done and the user will have to try again
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	1) correct of user information 2) Approve Registration
Extensions /Variations	(1.1) User information is incorrect 1. Display the appropriate message 2. Try again (2.1) Registration confirmation is not possible 1. Display the appropriate message 2. Try again

Name	Show successful registration message
Short Description	In this UC, a message is displayed to the user for successful registration
Preconditions	Registration completed successfully
Postcondition	The successful registration message is displayed to the user
Failure Situations	Network interruption
Postcondition in case of failure	Successful registration message will not be displayed to the user
Actors	User (HPrA) – system (NHSPa)
Trigger	Register
Main Success Scenario	<p>1) display successful registration message</p>
Extensions /Variations	<p>(1.1)Successful registration message will not be displayed</p> <p>1. Display the appropriate message</p>

Name	Change password
Short Description	In this UC, the user can change password
Preconditions	Enter the current password
Postcondition	Password changed
Failure Situations	Network interruption
Postcondition in case of failure	The password is not changed and the appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<ol style="list-style-type: none"> 1) Enter the current password 2) Enter a new password 3) confirm new password 4) Confirm password change 5) Password changes
Extensions /Variations	<ol style="list-style-type: none"> (1.1) The current password is incorrect <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again (3.1) Password change confirmation is not possible <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Logout
Short Description	In this UC, the user can log out from system
Preconditions	does not have
Postcondition	The user log out and the main menu is displayed
Failure Situations	Network interruption
Postcondition in case of failure	Logout is not successful and the appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	1) Confirm logout
Extensions /Variations	(1.1) Logout is not possible <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Display login error
Short Description	In this UC, a user login error message is displayed
Preconditions	does not have
Postcondition	does not have
Failure Situations	Network interruption
Postcondition in case of failure	Logout is not successful and the appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	does not have
Extensions /Variations	does not have

Name	Request Password Recovery
Short Description	In this UC, the user can request a password recovery
Preconditions	The user is registered
Postcondition	A password change email will be sent to the user
Failure Situations	Network interruption
Postcondition in case of failure	A password change email will not be sent to the user
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<ol style="list-style-type: none"> 1) Enter email 2) Confirm password recovery
Extensions /Variations	<ol style="list-style-type: none"> (1.1) The entered email is invalid <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again (2.1) Confirm password recovery is not possible <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Login with account
Short Description	In this UC, the user can login to system
Preconditions	The user is registered in the system
Postcondition	The user enters the user panel
Failure Situations	Network interruption
Postcondition in case of failure	login is not successful and the appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	Verify password
Main Success Scenario	1) Enter email 2) Enter the password
Extensions /Variations	(1.1) The entered email is not correct 1. Display the appropriate message 2. Try again (2.1) The password entered is incorrect 1. Display the appropriate message 2. Try again

Name	Verify password
Short Description	In this UC, the user password is verified for login to system
Preconditions	does not have
Postcondition	The user log out and the main menu is displayed
Failure Situations	Network interruption
Postcondition in case of failure	Logout is not successful and the appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	does not have
Extensions /Variations	does not have

Name	Register	
Short Description	In this UC, the user can register in the system	
Preconditions	correct of user information	
Postcondition	Registration is done and the user can login system	
Failure Situations	Network interruption	
Postcondition in case of failure	Registration is not done .The appropriate message is displayed and the user must try again	
Actors	User (HPrA) – system (NHSPa)	
Trigger	does not have	
Main Success Scenario	1) Enter first and last name 2) Enter email 3) Enter the password 4) Enter mobile number 5) Enter the national code number 6) Registration confirmation 7) Registration done	
Extensions /Variations	<div> (3.1) The password must be at least 8 characters long and contain special numbers and characters <div> 1. Display the appropriate message 2. Try again </div> </div> <div> (2.1) The entered email is not valid <div> 1. Display the appropriate message 2. Try again </div> </div> <div> (4.1) The entered phone number is incorrect <div> 1. Display the appropriate message 2. Try again </div> </div> <div> (5.1) The entered national code is invalid <div> 1. Display the appropriate message 2. Try again </div> </div>	

Name	CDN request
Short Description	In this UC the user can request a CDN
Preconditions	The user is logged in to the system
Postcondition	The request is sent and the configuration window is displayed
Failure Situations	Network interruption
Postcondition in case of failure	The request will not be sent .The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	1) Submit CDN request
Extensions /Variations	(1.1) The request will not be sent. The appropriate message is displayed 1. Display the appropriate message 2. Try again

Name	Cloud server request
Short Description	In this UC the user can request a cloud server
Preconditions	The user is logged in to the system
Postcondition	The request is sent and the configuration window is displayed
Failure Situations	Network interruption
Postcondition in case of failure	The request will not be sent .The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<p>1) Submit a cloud server request</p>
Extensions /Variations	<p>(1.1) The request will not be sent. The appropriate message is displayed</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Cloud container request
Short Description	In this UC the user can request a cloud container
Preconditions	The user is logged in to the system
Postcondition	The request is sent and the configuration window is displayed
Failure Situations	Network interruption
Postcondition in case of failure	The request will not be sent .The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<p>1) Submit a cloud container request</p>
Extensions /Variations	<p>(1.1) The request will not be sent. The appropriate message is displayed</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Apply for cloudy space
Short Description	In this UC the user can request a cloudy space
Preconditions	The user is logged in to the system
Postcondition	The request is sent and the configuration window is displayed
Failure Situations	Network interruption
Postcondition in case of failure	The request will not be sent .The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<p>1) Submit Apply for cloudy space</p>
Extensions /Variations	<p>(1.1) The request will not be sent. The appropriate message is displayed</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	View the list of cloud servers
Short Description	In this UC the user can view the list of cloud servers
Preconditions	The user is logged in to the system
Postcondition	View list of cloud servers
Failure Situations	Network interruption
Postcondition in case of failure	The list of cloud servers is not displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	does not have
Extensions /Variations	does not have

Name	Request backup from cloud server
Short Description	In this UC the user can request the backup of the cloud server
Preconditions	The user is logged in to the system
Postcondition	The request is sent
Failure Situations	Network interruption
Postcondition in case of failure	The request will not be sent .The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<p>1) Submit request backup from cloud server</p>
Extensions /Variations	<p>(1.1) The request will not be sent. The appropriate message is displayed</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Request rescue mode
Short Description	In this UC the user can request rescue mode
Preconditions	The user is logged in to the system
Postcondition	The request is sent
Failure Situations	Network interruption
Postcondition in case of failure	The request will not be sent .The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<p>1) Submit rescue mode request</p>
Extensions /Variations	<p>(1.1) The request will not be sent. The appropriate message is displayed</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Request firewall
Short Description	In this UC the user can request firewall for cloud server
Preconditions	The user is logged in to the system
Postcondition	The request is sent
Failure Situations	Network interruption
Postcondition in case of failure	The request will not be sent .The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<p>1) Submit firewall request</p>
Extensions /Variations	<p>(1.1) The request will not be sent. The appropriate message is displayed</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Request snapshot
Short Description	In this UC the user can request snapshot for cloud server
Preconditions	The user is logged in to the system
Postcondition	The request is sent
Failure Situations	Network interruption
Postcondition in case of failure	The request will not be sent .The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<p>1) Submit snapshot request</p>
Extensions /Variations	<p>(1.1) The request will not be sent. The appropriate message is displayed</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Request Float IP
Short Description	In this UC the user can request Float IP for cloud server
Preconditions	The user is logged in to the system
Postcondition	The request is sent
Failure Situations	Network interruption
Postcondition in case of failure	The request will not be sent .The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<p>1) Submit request Float IP</p>
Extensions /Variations	<p>(1.1) The request will not be sent. The appropriate message is displayed</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Configure access type
Short Description	In this UC the user can specify the access type for example ssh key or Disposable password for the cloud server
Preconditions	The user is logged in to the system
Postcondition	Configuration done
Failure Situations	Network interruption
Postcondition in case of failure	Configuration not performed .The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	1) specify access type
Extensions /Variations	(1.1) The selected access type is not allocated <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	View the list of cloud containers
Short Description	In this UC the user can view the list of cloud containers
Preconditions	The user is logged in to the system
Postcondition	View list of cloud containers
Failure Situations	Network interruption
Postcondition in case of failure	The list of cloud containers is not displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	does not have
Extensions /Variations	does not have

Name	View cloud container logs
Short Description	In this UC the user can view cloud container logs
Preconditions	The user is logged in to the system
Postcondition	View cloud containers logs
Failure Situations	Network interruption
Postcondition in case of failure	The cloud containers logs is not displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	does not have
Extensions /Variations	does not have

Name	Allocate cloud space
Short Description	In this UC the user can allocate cloud space
Preconditions	The user has requested cloud space
Postcondition	Display cloud space allocation page
Failure Situations	Network interruption
Postcondition in case of failure	The cloud space allocation page is not displayed .And the appropriate message is displayed to the user
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	1) Select the name for bucket 2) Confirm
Extensions /Variations	(1.1) The bucket name has already been selected 1. Display the appropriate message 2. Try again

Name	Static website launch
Short Description	In this UC, the user can set up a static site
Preconditions	The user must specify a cloud space
Postcondition	Launching a static site
Failure Situations	Network interruption
Postcondition in case of failure	The static site will not launch and the appropriate message will be displayed to the user.
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<ol style="list-style-type: none"> 1) Allocate cloud space 2) Upload site files
Extensions /Variations	<ol style="list-style-type: none"> (1.1) Cloud space is not allocated <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Request encrypt data
Short Description	In this UC the user can request the encryption of the files
Preconditions	The user must specify a cloud space
Postcondition	The request is sent
Failure Situations	Network interruption
Postcondition in case of failure	The request will not be sent .The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<p>1) Submit request encrypt data</p>
Extensions /Variations	<p>(1.1) The request will not be sent. The appropriate message is displayed</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	set permissions
Short Description	In this UC the user can specify the access level for the files
Preconditions	The user must specify a cloud space
Postcondition	The desired permission is determined
Failure Situations	Network interruption
Postcondition in case of failure	The desired permission is not determined .The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<ol style="list-style-type: none"> 1) Specify permission 2) confirm
Extensions /Variations	<p>(1.1) The desired permission will not be specified. The appropriate message is displayed</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Create a folder inside each bucket
Short Description	In this UC the user can create a folder inside each bucket
Preconditions	The user must specify a cloud space
Postcondition	Folder created
Failure Situations	Network interruption
Postcondition in case of failure	The folder is not created .The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<ol style="list-style-type: none"> 1) Select the name for folder 2) Confirm folder creation
Extensions /Variations	<p>(1.1) The desired name has already been selected. The appropriate message is displayed</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	remove file or folder
Short Description	In this UC the user can remove file or folder
Preconditions	The user must specify a cloud space
Postcondition	Deleted file or folder
Failure Situations	Network interruption
Postcondition in case of failure	The deleted file or folder and The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	1) Confirm deleting file or folder
Extensions /Variations	(1.1) Deleting a file or folder is not approved. The appropriate message is displayed <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	bucket remove
Short Description	In this UC the user can remove bucket
Preconditions	The user must specify a cloud space
Postcondition	The desired bucket is deleted
Failure Situations	Network interruption
Postcondition in case of failure	The desired bucket will not be deleted and The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	1) Confirm deleting bucket
Extensions /Variations	<p>(1.1) Deleting a bucket is not approved. The appropriate message is displayed</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Download files
Short Description	In this UC the user can download the files
Preconditions	The user must specify a cloud space
Postcondition	Downloaded file
Failure Situations	Network interruption
Postcondition in case of failure	The file cannot be downloaded
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	1) Download the desired file
Extensions /Variations	(1.1) Download not done. The appropriate message is displayed <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	configure connection method
Short Description	In this UC, the user can specify the connection method
Preconditions	The user must specify a cloud space
Postcondition	The connection method is specified
Failure Situations	Network interruption
Postcondition in case of failure	The connection method is not specified
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	1) Specify the connection method
Extensions /Variations	(1.1) The connection method is not specified. The appropriate message is displayed <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	view list the buckets
Short Description	In this UC the user can view the list of buckets
Preconditions	Request cloud space
Postcondition	view list the buckets
Failure Situations	Network interruption
Postcondition in case of failure	list the buckets Is not displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	does not have
Extensions /Variations	does not have

Name	Login with facebook
Short Description	In this UC, the user can login using Facebook API
Preconditions	sign up on Facebook
Postcondition	The user enters the user panel
Failure Situations	Network interruption
Postcondition in case of failure	login is not successful and the appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	1) Request login with facebook
Extensions /Variations	does not have

Name	Login with google
Short Description	In this UC, the user can login using Google API
Preconditions	sign up on Google
Postcondition	The user enters the user panel
Failure Situations	Network interruption
Postcondition in case of failure	login is not successful and the appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	1) Request login with google
Extensions /Variations	does not have

Name	Request Compress JavaScript and CSS files
Short Description	In this UC, the user can request the compression of JavaScript and CSS files.
Preconditions	The user must assign a CDN
Postcondition	The request is sent
Failure Situations	Network interruption
Postcondition in case of failure	The request will not be sent. The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	1) Request Compress JavaScript and CSS files
Extensions /Variations	(1.1) The request will not be sent. The appropriate message is displayed <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Assign the CDN
Short Description	In this UC, the user can assign the CDN
Preconditions	The user has requested CDN
Postcondition	Display CDN assignment page
Failure Situations	Network interruption
Postcondition in case of failure	The CDN assignment page is not displayed. And the appropriate message is displayed to the user
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<ol style="list-style-type: none"> 1) Enter the domain desired 2) Verify domain desired
Extensions /Variations	<ol style="list-style-type: none"> (1.1) The domain is not valid. The appropriate message is displayed <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again (2.1) The desired domain is not approved. The appropriate message is displayed <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Create different domain paths
Short Description	In this UC the user can create different paths for the domain
Preconditions	The user has requested CDN
Postcondition	Display configure CDN page
Failure Situations	Network interruption
Postcondition in case of failure	The configure CDN page is not displayed. And the appropriate message is displayed to the user
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<ol style="list-style-type: none"> 1) Specify different domain paths 2) Verify different domain paths
Extensions /Variations	<ol style="list-style-type: none"> (1.1) The different domain paths. The appropriate message is displayed <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again (2.1) The different domain paths is not approved. The appropriate message is displayed <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	adjust cache operation level
Short Description	In this UC the user can specify cache level
Preconditions	The user has requested CDN
Postcondition	Display configure CDN page
Failure Situations	Network interruption
Postcondition in case of failure	The configure CDN page is not displayed. And the appropriate message is displayed to the user
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	1) Specify cache level
Extensions /Variations	(1.1) The selected cache level is not allocated <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	request Decrease or increase cloud server resources
Short Description	In this UC the user can request decrease or increase cloud server resources
Preconditions	The user must specify a cloud server
Postcondition	Display cloud server resources page
Failure Situations	Network interruption
Postcondition in case of failure	The cloud server resources page is not displayed. And the appropriate message is displayed to the user
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	1) Submit request Decrease or increase cloud server resources
Extensions /Variations	<p>(1.1) The request will not be sent. The appropriate message is displayed</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Send email access information
Short Description	This UC sends access information to the user email
Preconditions	The user must specify a cloud server
Postcondition	An email will be sent
Failure Situations	Network interruption
Postcondition in case of failure	Email will not be sent. And the appropriate message is displayed to the user
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	1) Send access information to user email
Extensions /Variations	(1.1) Email will not be sent. The appropriate message is displayed <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Send application invoice to email
Short Description	This UC sends application invoice to the user email
Preconditions	The user must specify a cloud container
Postcondition	An email will be sent
Failure Situations	Network interruption
Postcondition in case of failure	Email will not be sent. And the appropriate message is displayed to the user
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	1) Send application invoice to user email
Extensions /Variations	(1.1) Email will not be sent. The appropriate message is displayed 1. Display the appropriate message 2. Try again

Name	Monitoring of consumption resources
Short Description	This UC user can monitor cloud container usage resources
Preconditions	The user must specify a cloud container
Postcondition	View cloud container usage resources
Failure Situations	Network interruption
Postcondition in case of failure	Cloud container consumption resources are not displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	does not have
Extensions /Variations	does not have

Name	Request load balancing
Short Description	In this UC user can request load balancing for cloud container
Preconditions	The user must specify a cloud container
Postcondition	The request is sent
Failure Situations	Network interruption
Postcondition in case of failure	The request will not be sent. The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<p>1) Submit request load balancing</p>
Extensions /Variations	<p>(1.1) The request will not be sent. The appropriate message is displayed</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	request permanent disk
Short Description	In this UC user can request permanent disk for cloud container
Preconditions	The user must specify a cloud container
Postcondition	The request is sent
Failure Situations	Network interruption
Postcondition in case of failure	The request will not be sent. The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<p>1) Submit request permanent disk</p>
Extensions /Variations	<p>(1.1) The request will not be sent. The appropriate message is displayed</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Request multiple namespaces
Short Description	In this UC user can request multiple namespaces for cloud container
Preconditions	The user must specify a cloud container
Postcondition	The request is sent
Failure Situations	Network interruption
Postcondition in case of failure	The request will not be sent. The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<p>1) Submit request multiple namespaces</p>
Extensions /Variations	<p>(1.1) The request will not be sent. The appropriate message is displayed</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

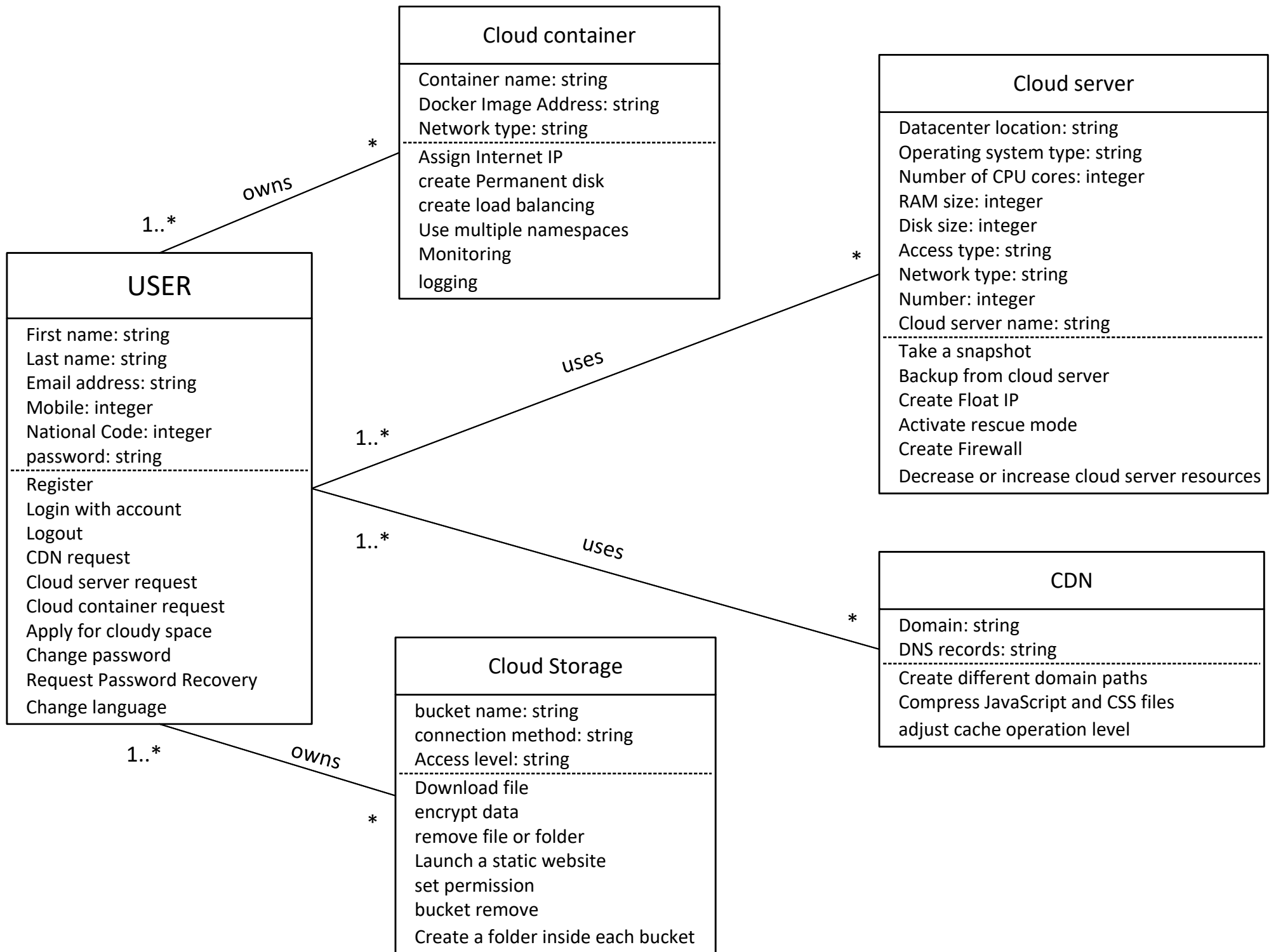
Name	Request Internet IP
Short Description	In this UC user can request Internet IP for cloud container
Preconditions	The user must specify a cloud container
Postcondition	The request is sent
Failure Situations	Network interruption
Postcondition in case of failure	The request will not be sent. The appropriate message is displayed
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<p>1) Submit request Internet IP</p>
Extensions /Variations	<p>(1.1) The request will not be sent. The appropriate message is displayed</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Assign the cloud container
Short Description	In this UC user can assign the cloud container
Preconditions	The user has requested cloud container
Postcondition	Display cloud container allocation page
Failure Situations	Network interruption
Postcondition in case of failure	The cloud container allocation page is not displayed. And the appropriate message is displayed to the user
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<ol style="list-style-type: none"> 1) Select name for application 2) Enter docker image address 3) Specify the required resources
Extensions /Variations	<p>(1.1) docker image address is not valid. The appropriate message is displayed</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

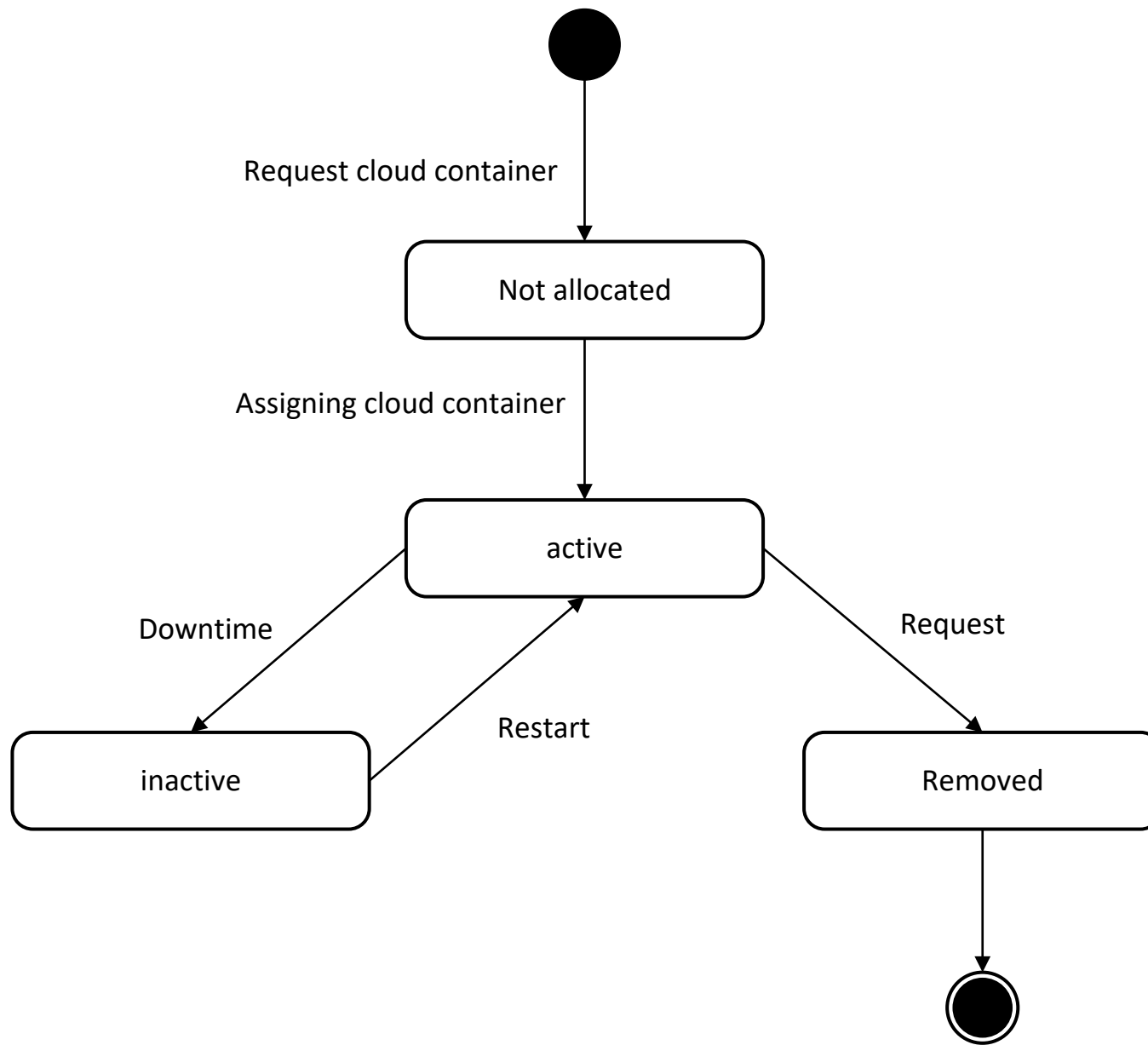
Name	Configure network
Short Description	In this UC user can configure network for the cloud container
Preconditions	The user must specify a cloud container
Postcondition	Display configure network page for cloud container
Failure Situations	Network interruption
Postcondition in case of failure	The configure network page for cloud container is not displayed. And the appropriate message is displayed to the user
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<p>1) Specify type network</p>
Extensions /Variations	<p>(1.1) The selected network type is not allocated</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

Name	Assign the cloud server
Short Description	In this UC user can assign the cloud server
Preconditions	The user has requested cloud server
Postcondition	Display cloud server allocation page
Failure Situations	Network interruption
Postcondition in case of failure	The cloud server allocation page is not displayed. And the appropriate message is displayed to the user
Actors	User (HPrA) – system (NHSPa)
Trigger	does not have
Main Success Scenario	<ol style="list-style-type: none"> 1) Select the data center 2) Select the operating system 3) select the cloud server size 4) select the name and number of cloud server 5) confirm info
Extensions /Variations	<p>(5.1) confirm info is not done</p> <ol style="list-style-type: none"> 1. Display the appropriate message 2. Try again

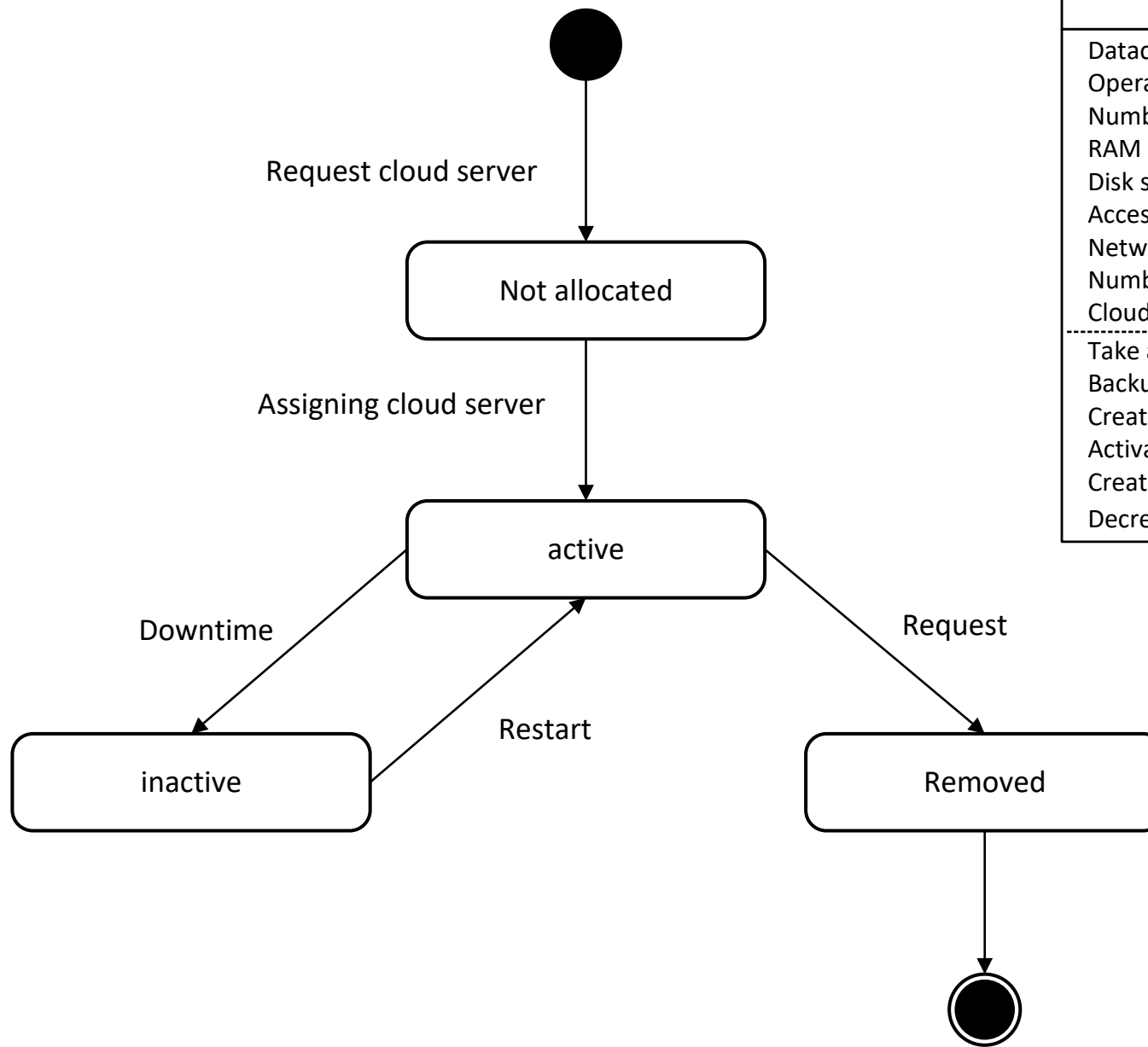
Class Diagram



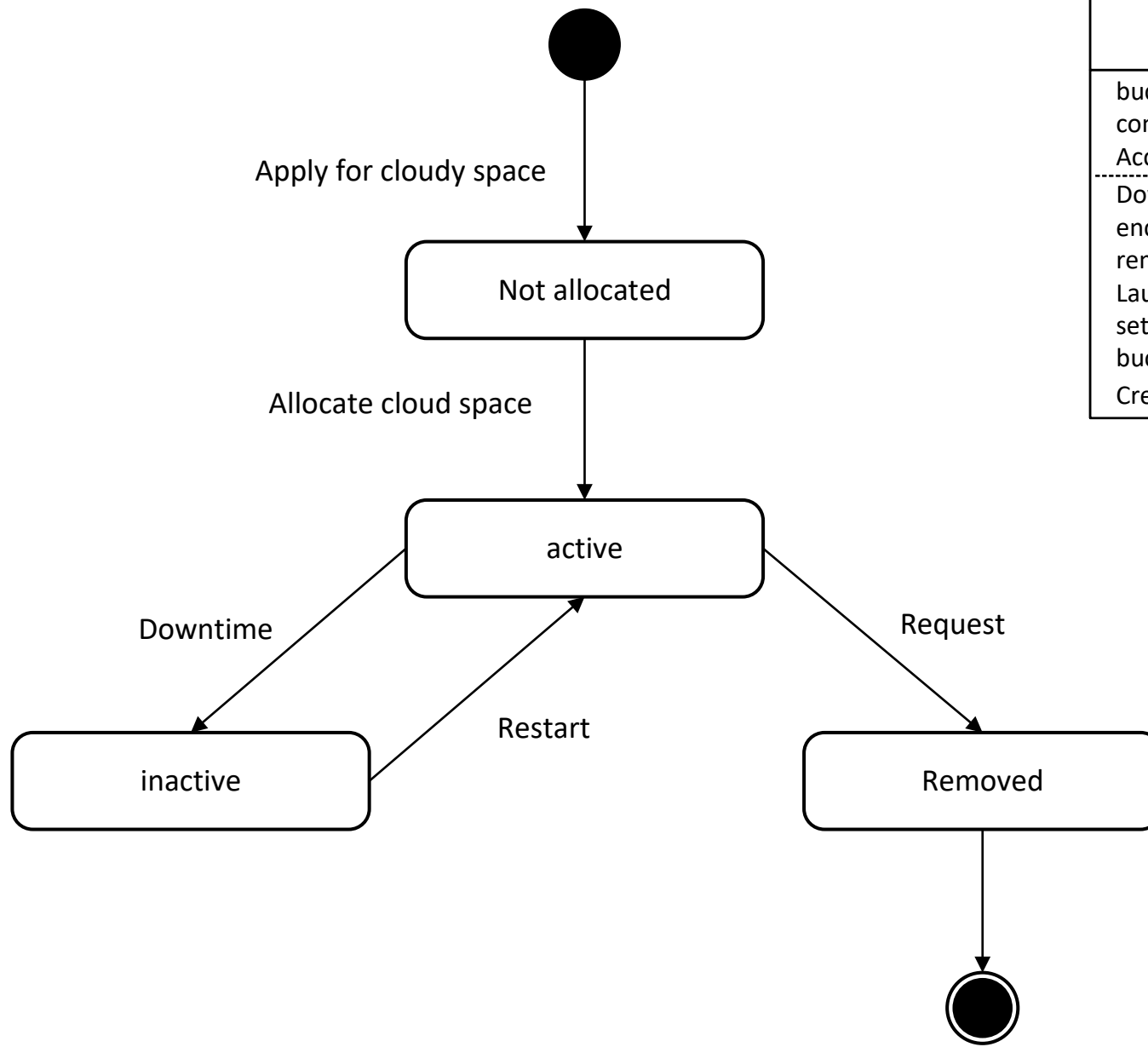
Statechart Diagram



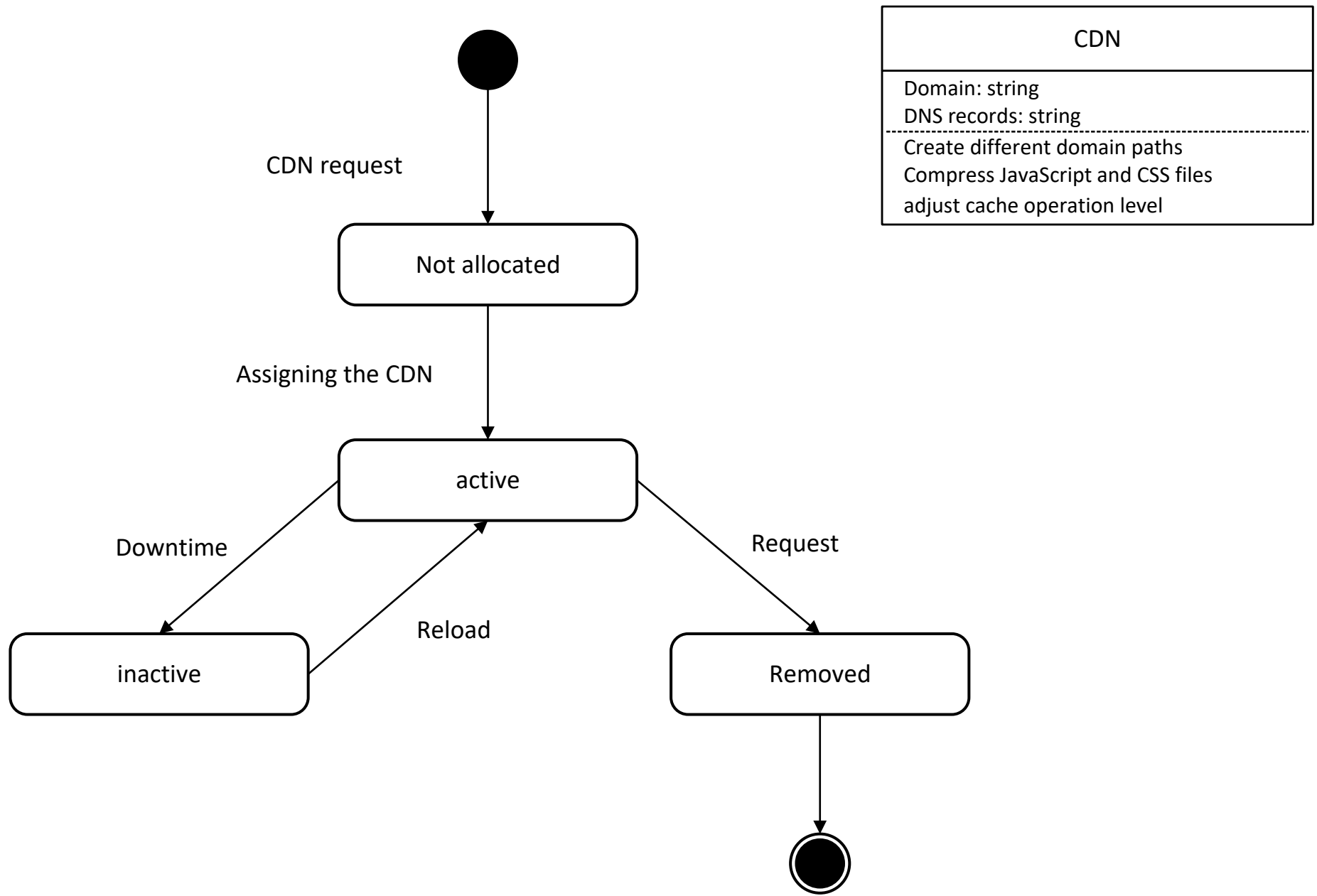
Cloud container
Container name: string Docker Image Address: string Network type: string
Assign Internet IP create Permanent disk create load balancing Use multiple namespaces Monitoring logging



Cloud server
Datacenter location: string Operating system type: string Number of CPU cores: integer RAM size: integer Disk size: integer Access type: string Network type: string Number: integer Cloud server name: string
Take a snapshot Backup from cloud server Create Float IP Activate rescue mode Create Firewall Decrease or increase cloud server resources



Cloud Storage
bucket name: string connection method: string Access level: string
Download file encrypt data remove file or folder Launch a static website set permission bucket remove Create a folder inside each bucket



Interface Model

Register

First Name and Last Name

Email

Password

Phone number

National code

Register

Do you have an account? **Login**

Login

Email

Password

Login

Don't have an account? **Register**

Forgot your password?

Password Recovery

Email

Password Recovery

Return to **Login**

Change Password

Current Password

New Password

Confirm New Password

Change Password



CDN

IaaS

Paas

Storage



Logout account

Are you sure you want to logout?

YES

NO



CDN

IaaS

Paas

Storage



Setting

Select language

Change language





CDN

• Cloud servers

IaaS

Rescue mode

Resources

Paas

Firewall

Backup

Storage

Float IP

Snapshot

Configure



List of cloud servers

Select the data center



Cloud server request

Status	Name	IP address	Operations
active	Sample_1	185.239.105.8	...
Inactive	Sample_2	185.239.105.249	...

Welcome to cloud services system



Login with account



Login with google



Login with facebook

Don't have an account? **Register**



CDN

• Cloud servers

IaaS

Rescue mode

Resources

Paas

Firewall

Backup

Storage

Float IP

Snapshot

Configure



Select the data center

Test_1

City - Country

Test_2

City - Country

Test_3

City - Country

Confirmation and next step

Return



CDN

• Cloud servers

IaaS

Rescue mode

Resources

Paas

Firewall

Backup

Storage

Float IP

Snapshot



Configure



Select the operating system

Centos

Select version ▼

Debian

Select version ▼

Windows

Select version ▼

Confirmation and next step

Return



CDN

• Cloud servers

IaaS

Rescue mode

Resources

Paas

Firewall

Backup

Storage

Float IP

Snapshot



Configure



Select the cloud server size

Storage

25 GB SSD

50 GB SSD

75 GB SSD

Memory

1 GB

2 GB

3 GB

4 GB

Processor

1 CPU

2 CPU

Confirmation and next step

Return



CDN

• Cloud servers

IaaS

Rescue mode

Resources

Paas

Firewall

Backup

Storage

Float IP

Snapshot



Configure



Select the name and number of cloud servers

Number of cloud servers

-

1

+

Cloud server name

Test_1

Create cloud server

Return



CDN

IaaS

Paas

Storage



• Cloud servers

Rescue mode

Resources

Firewall

Backup

Float IP

Snapshot

Configure



Your cloud server was successfully created.

Cloud server access information

Username: test_user

Address IP: 185.239.105.241

Password: *****



I realized



CDN

IaaS

Paas

Storage



Cloud servers

Rescue mode

Resources

Firewall

Backup

Float IP

Snapshot

• Configure

Email

Network

Access type

SSH key

Disposable
password

YES

NO



CDN

IaaS

PaaS

Storage



• Cloud container

Permanent disk

Namespaces

Load Balancing

Monitoring

Internet IP

Configure

Log

List of cloud containers

Cloud container request

Status

Title

active

webserver

...



CDN

IaaS

Cloud container
Permanent disk
Namespaces

Paas

• Load Balancing

Storage

Monitoring
Internet IP
Configure
Log



Load Balancing

With Load Balancing, requests received from your customers are automatically split between multiple containers of your software.

[Request load balancing](#)



CDN

IaaS

PaaS

Storage



Cloud servers

Rescue mode

Resources

Firewall

Backup

Float IP

• Snapshot

Configure

Snapshot

You can take a snapshot of the current state of your cloud server at any time to restore the server to any of the previous snapshots when needed.

Request snapshot



CDN

IaaS

PaaS

Storage



Cloud servers

Rescue mode

Resources

Firewall

Backup

• Float IP

Snapshot

Configure

Float IP

This will allow you to instantly add an unlimited number of IPs to your cloud servers.

Request Float IP



CDN

IaaS

Paas

Storage



Cloud servers

Rescue mode

Resources

Firewall

Backup

Float IP

Snapshot

• Configure

Email

Network

Access type

☐ Send email access information

YES

NO



CDN

IaaS

Paas

Storage



• Buckets

Configure

List of buckets

Apply for cloudy space

Bucket	Production date
test1	08/11/2021





CDN

• Buckets

IaaS

Configure

Paas

Storage



Add a new bucket

Name

test1

Add



CDN

IaaS

Paas

Storage



• Buckets

Configure

List of buckets

Apply for cloudy space

Bucket

Production date

Delete

test1

08/11/2021



Are you sure you want to delete this bucket?

YES

NO



CDN

IaaS

Paas

Storage



Cloud container

Permanent disk

Namespaces

Load Balancing

Monitoring

Internet IP

Configure

• Log

Logging

webserver

Date & Time

Status

Message



CDN

IaaS

PaaS

Storage



Cloud servers

Rescue mode

Resources

• Firewall

Backup

Float IP

Snapshot

Configure

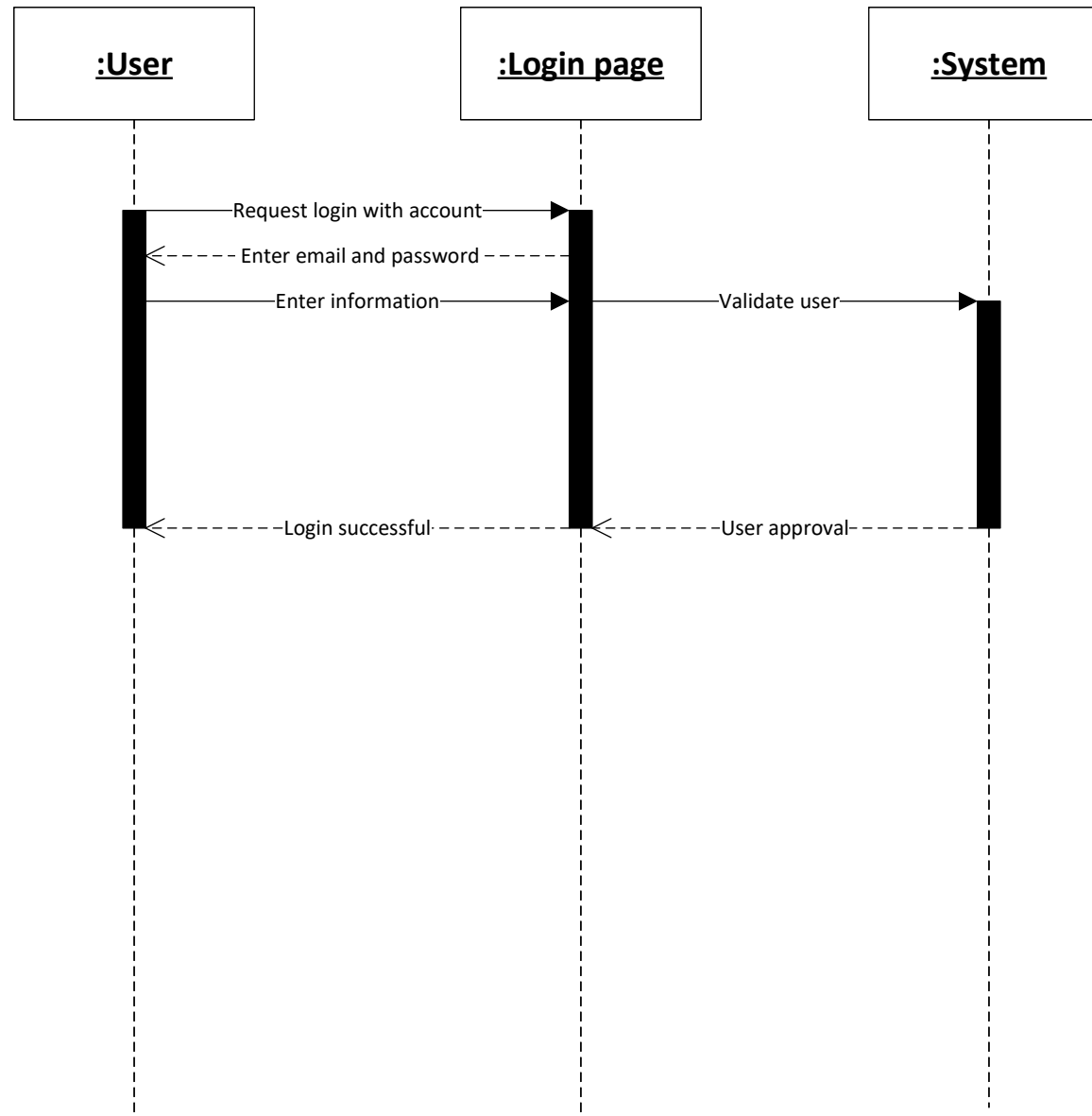
Firewall

To secure your cloud server, you can use the firewall to define and apply server access levels.

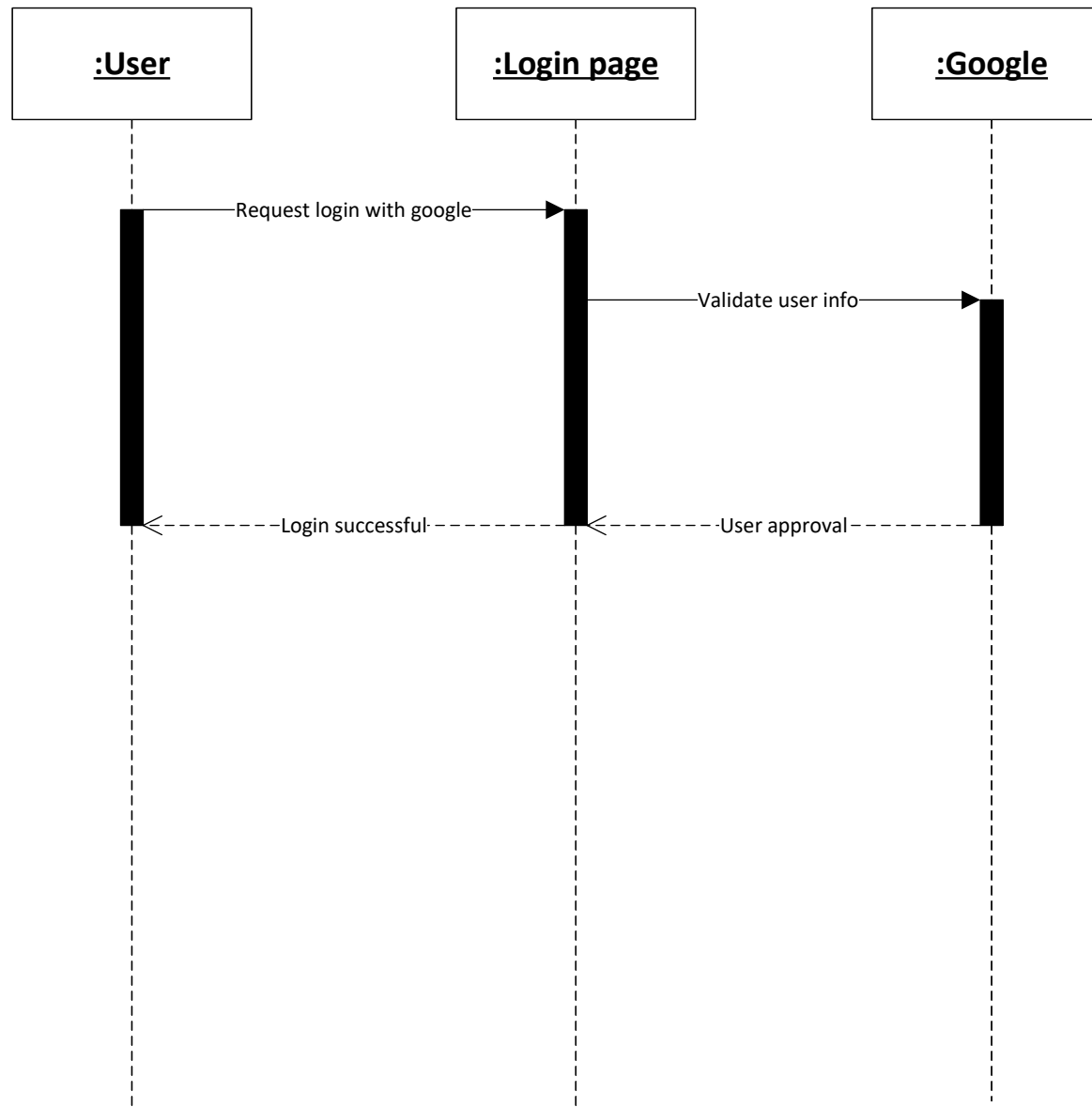
Request Firewall

Sequence Diagram

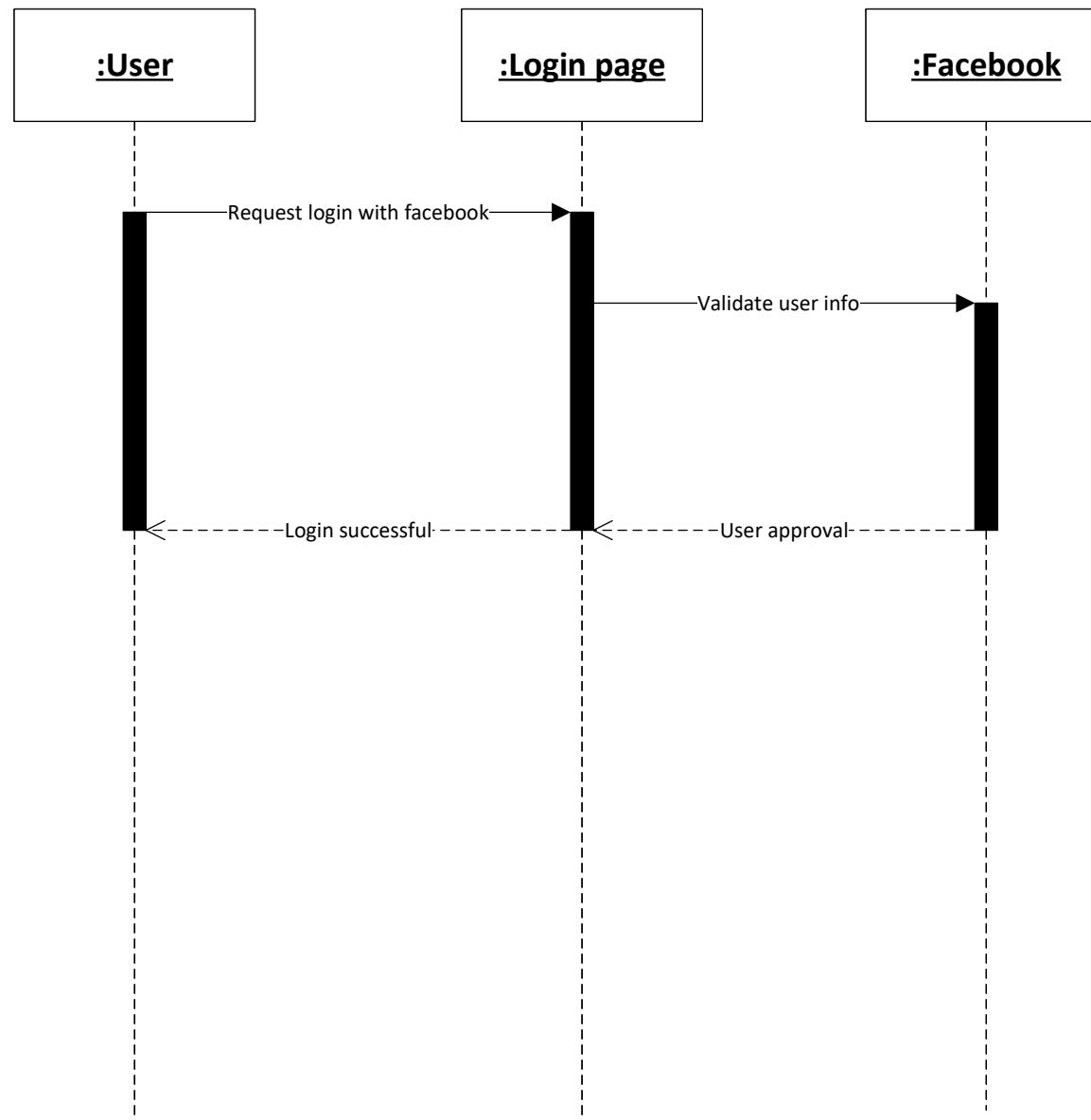
Sequence Diagram: Login with account



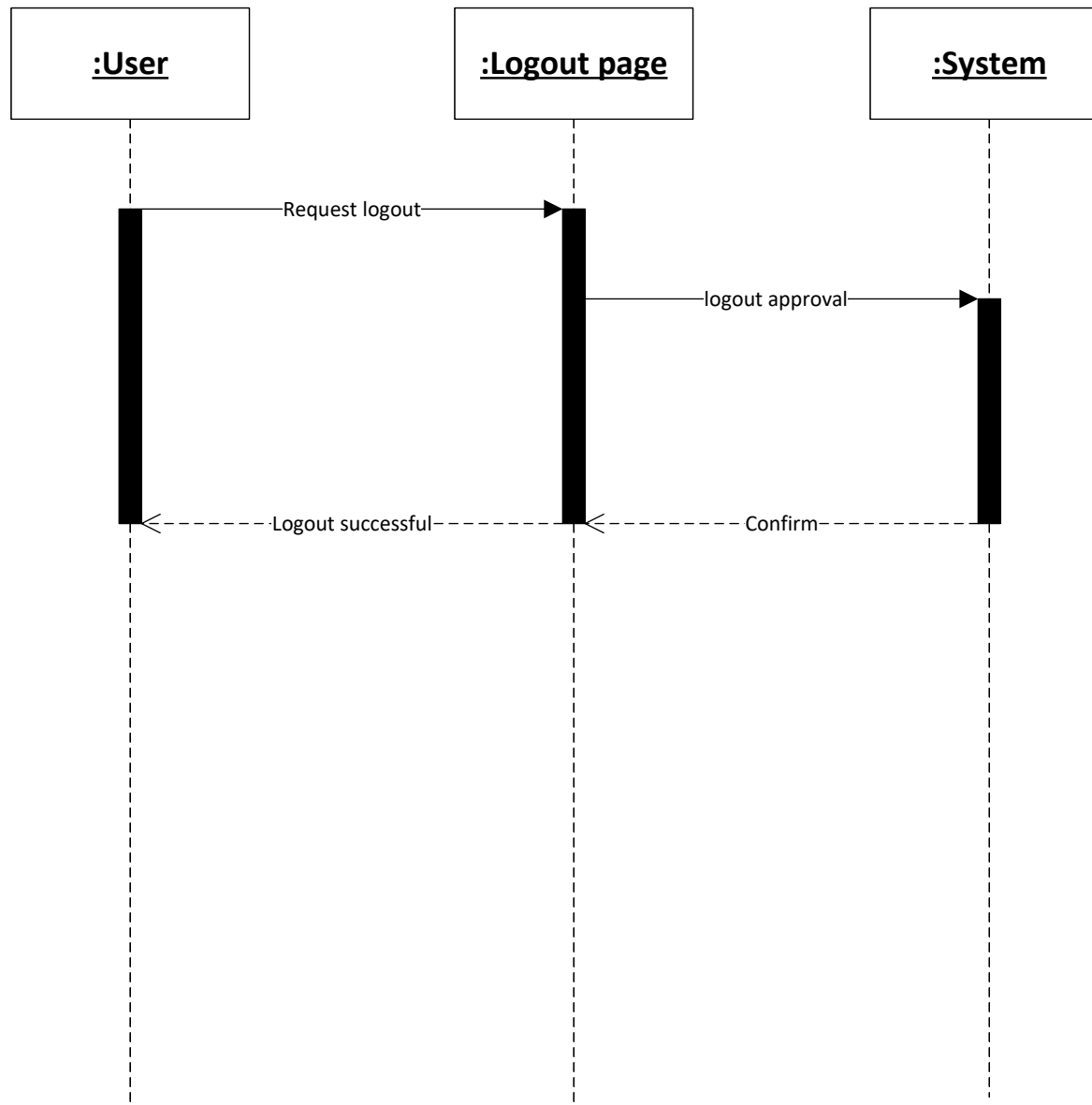
Sequence Diagram: Login with google



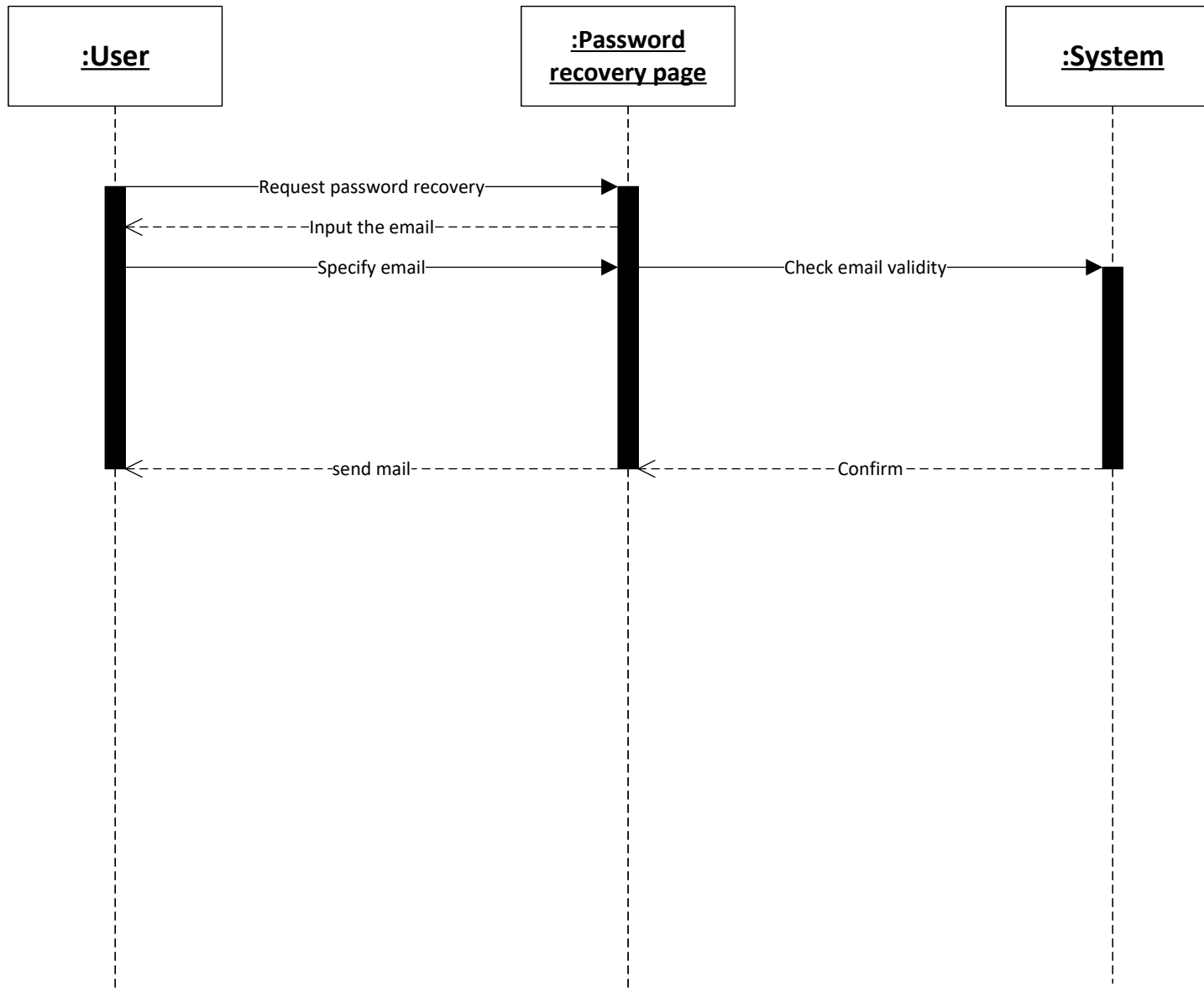
Sequence Diagram: Login with facebook



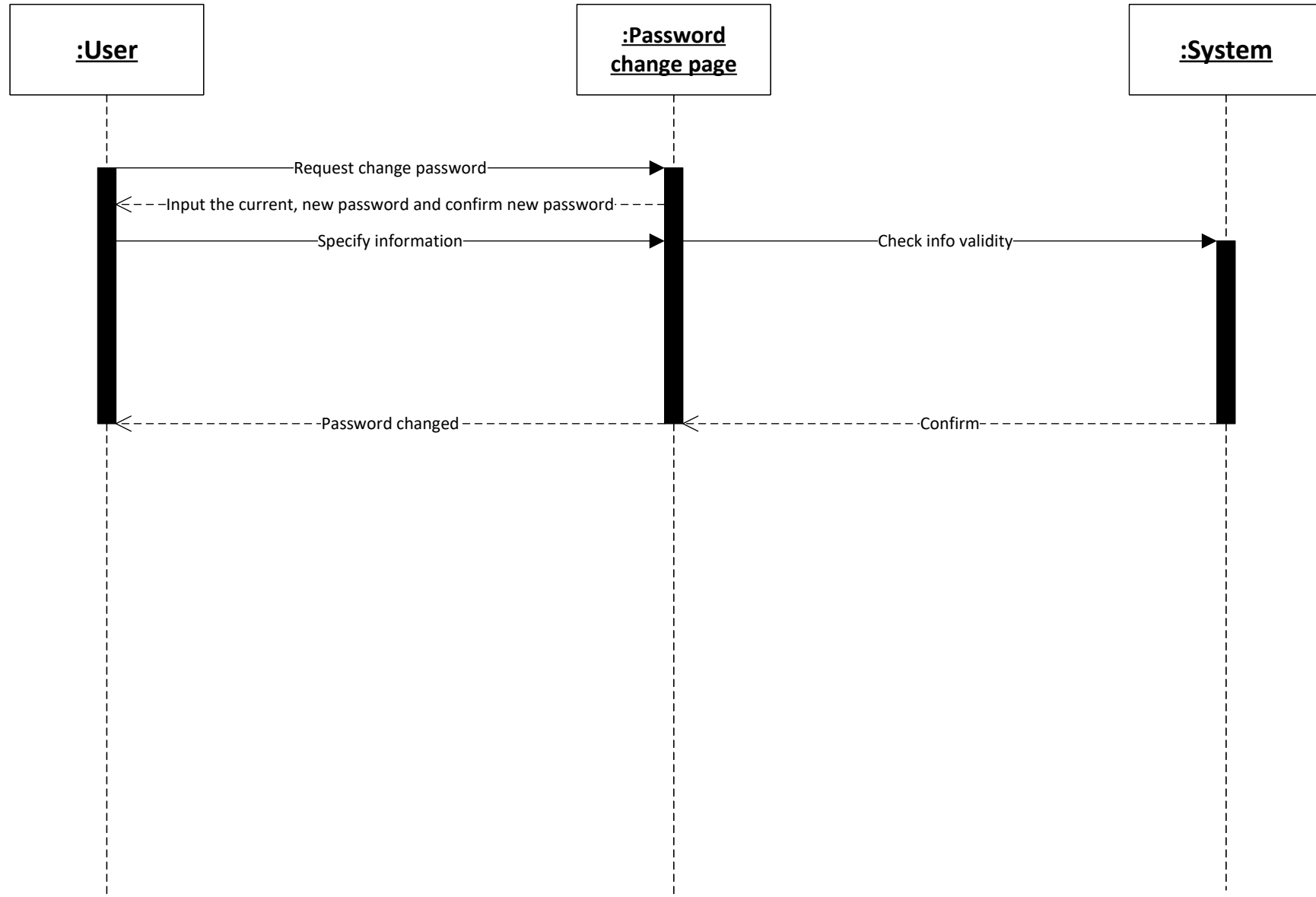
Sequence Diagram: Logout



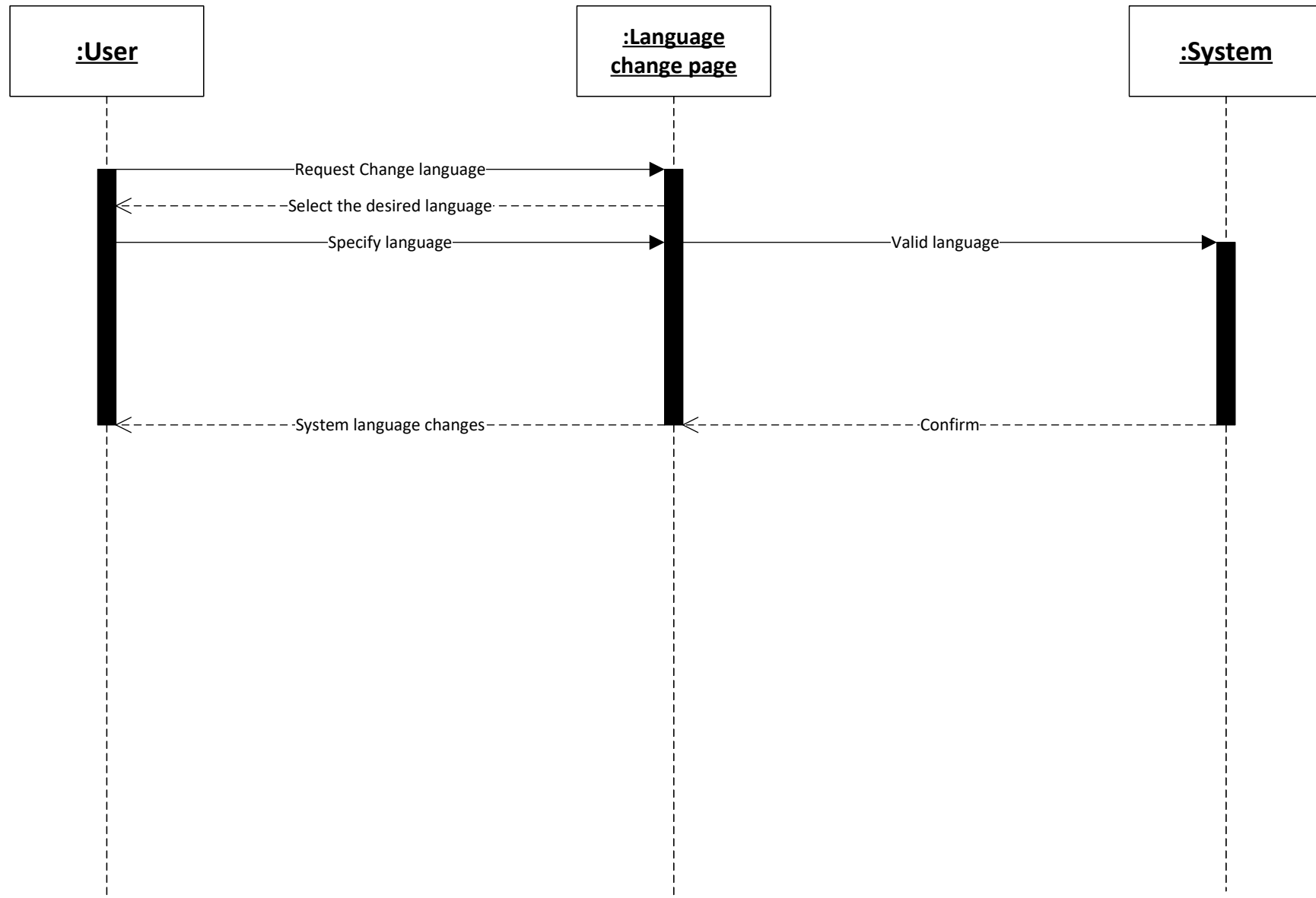
Sequence Diagram: Request password recovery



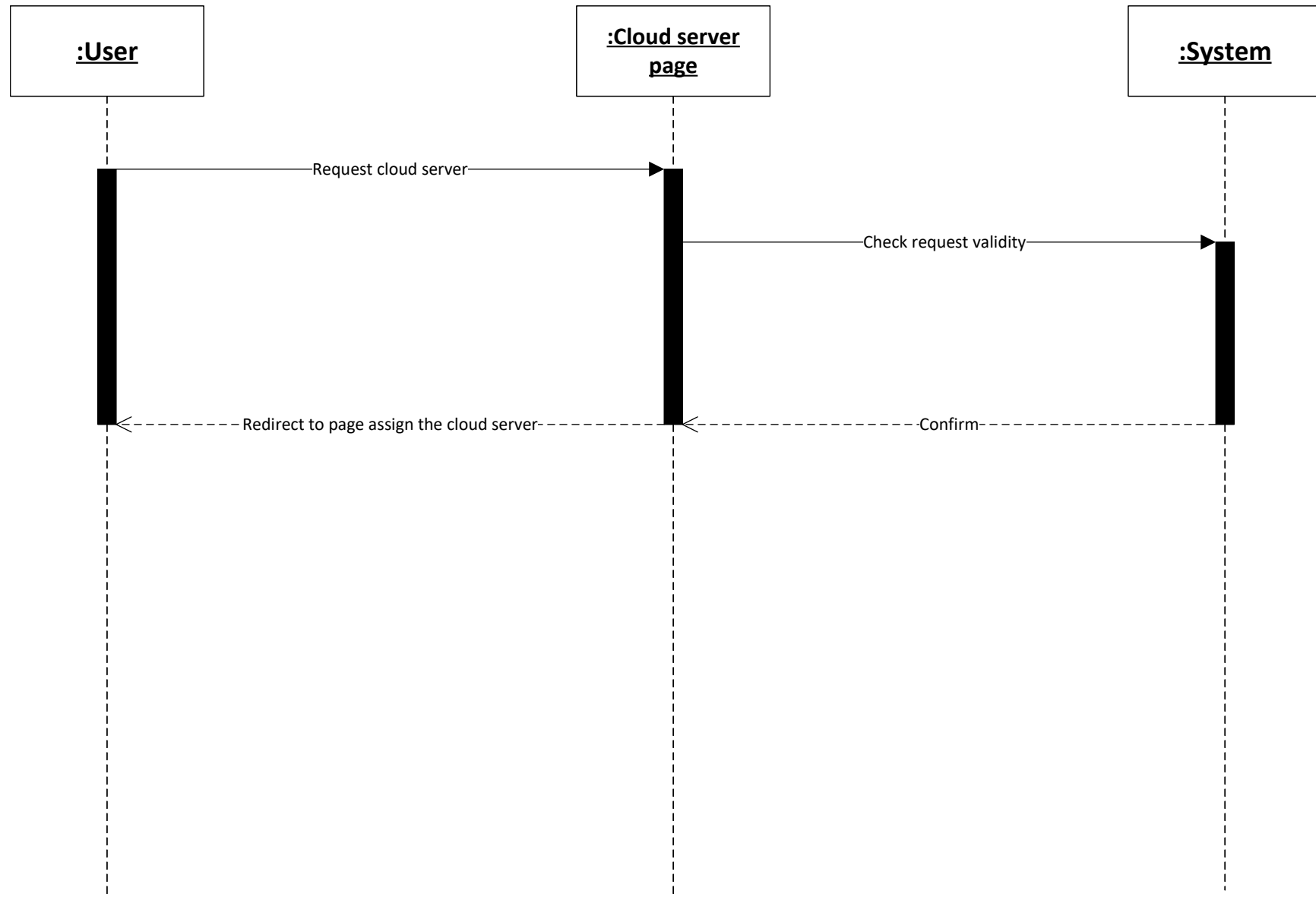
Sequence Diagram: Request change password



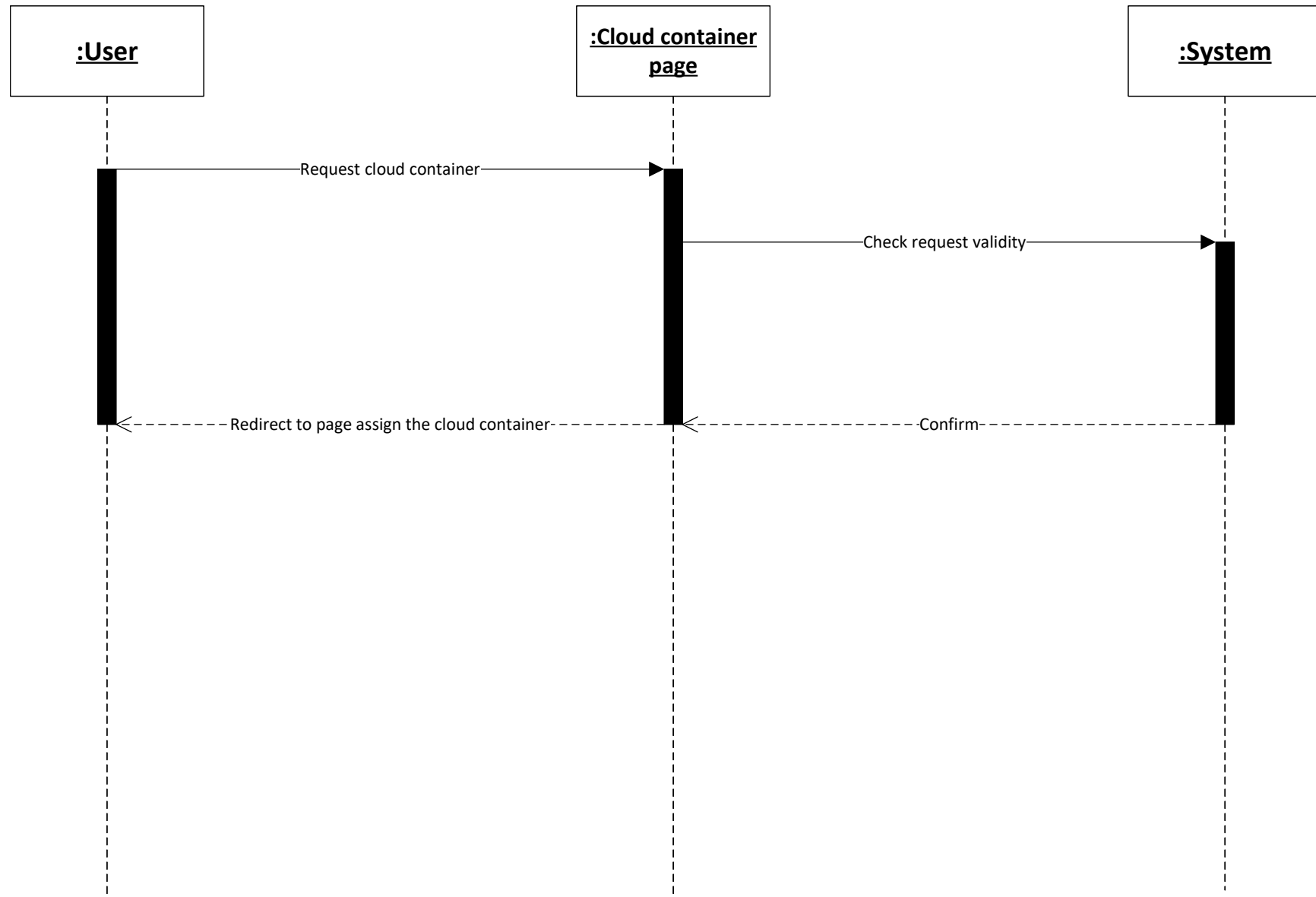
Sequence Diagram: Change Language



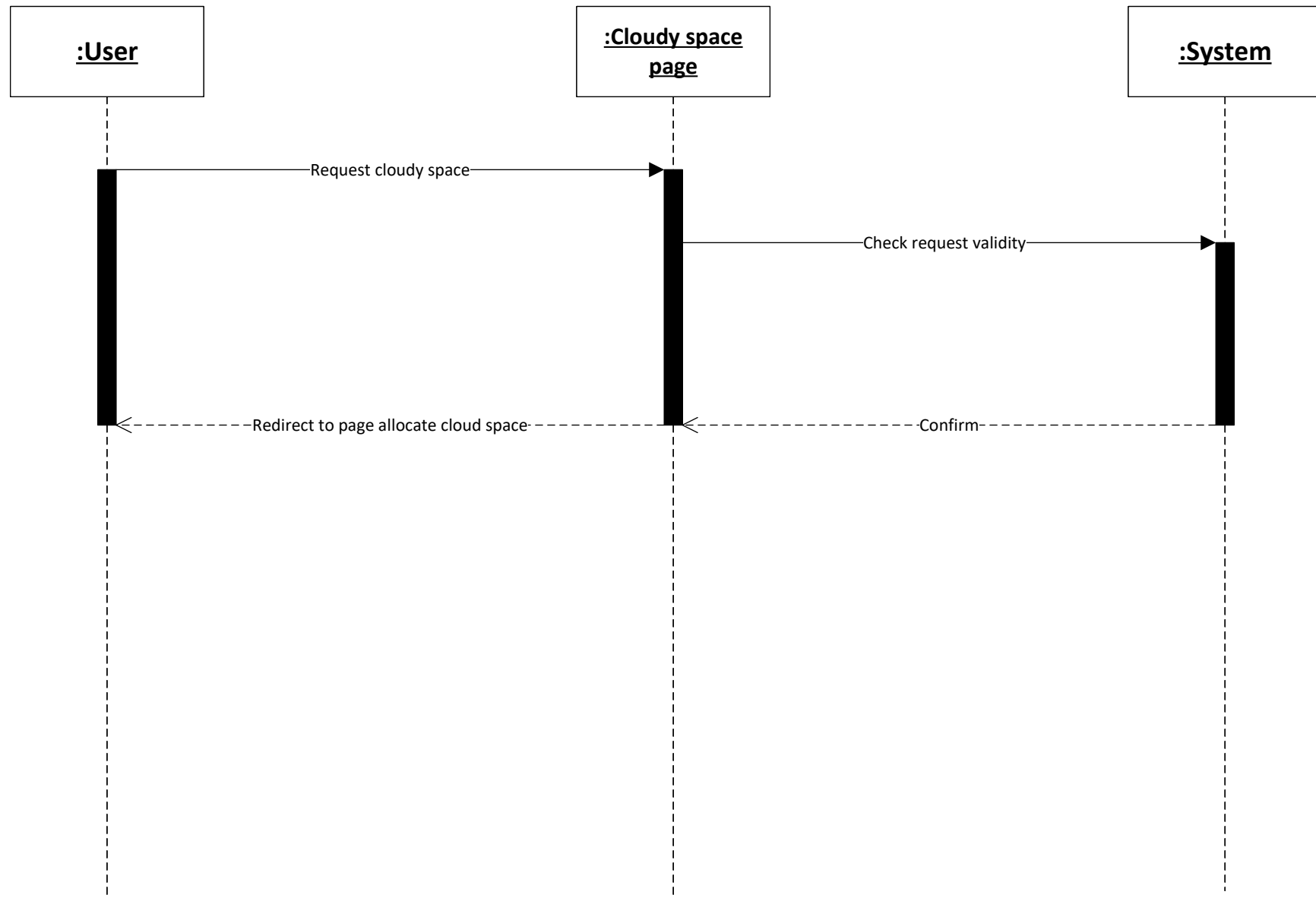
Sequence Diagram: Cloud server request



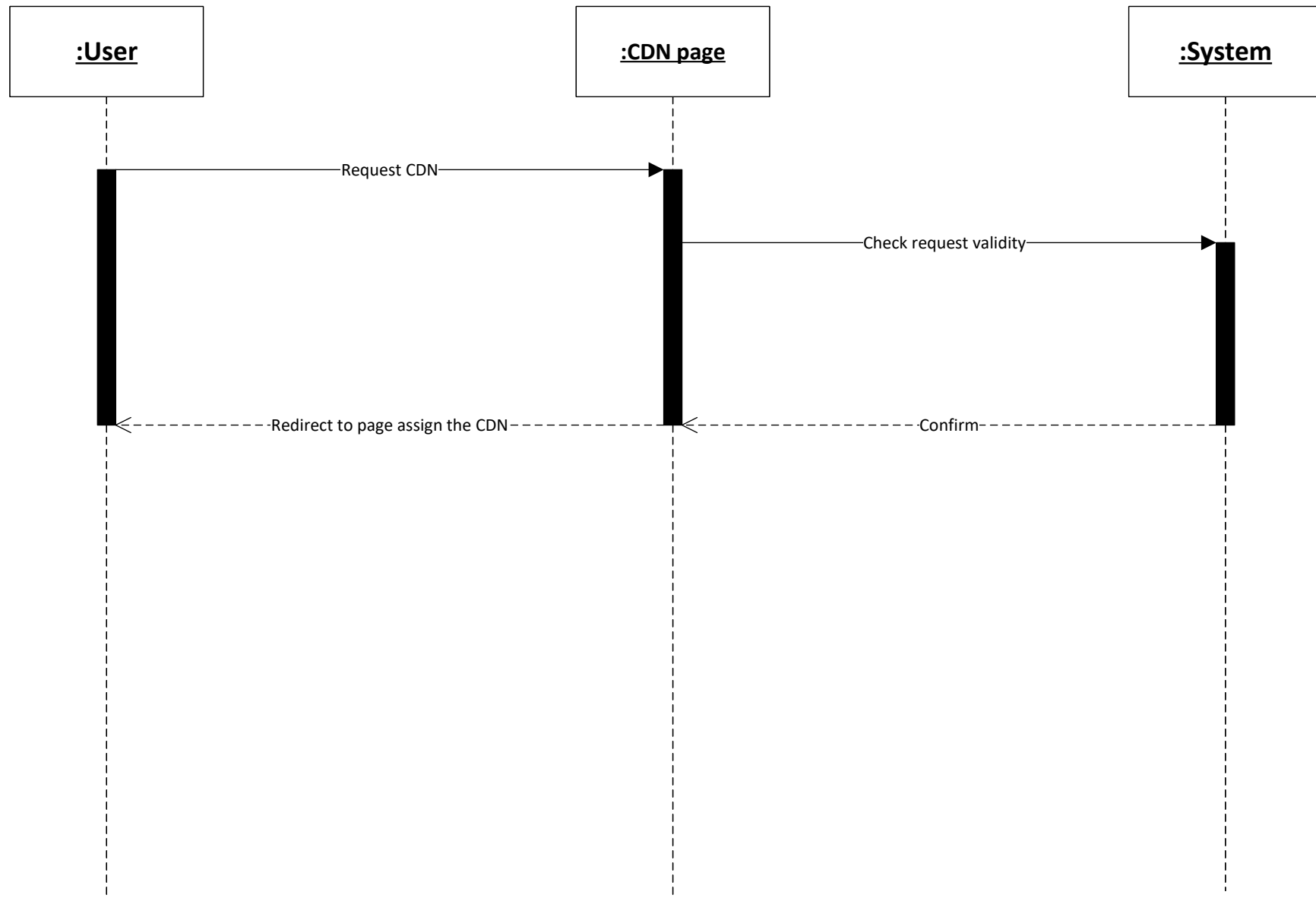
Sequence Diagram: Cloud container request



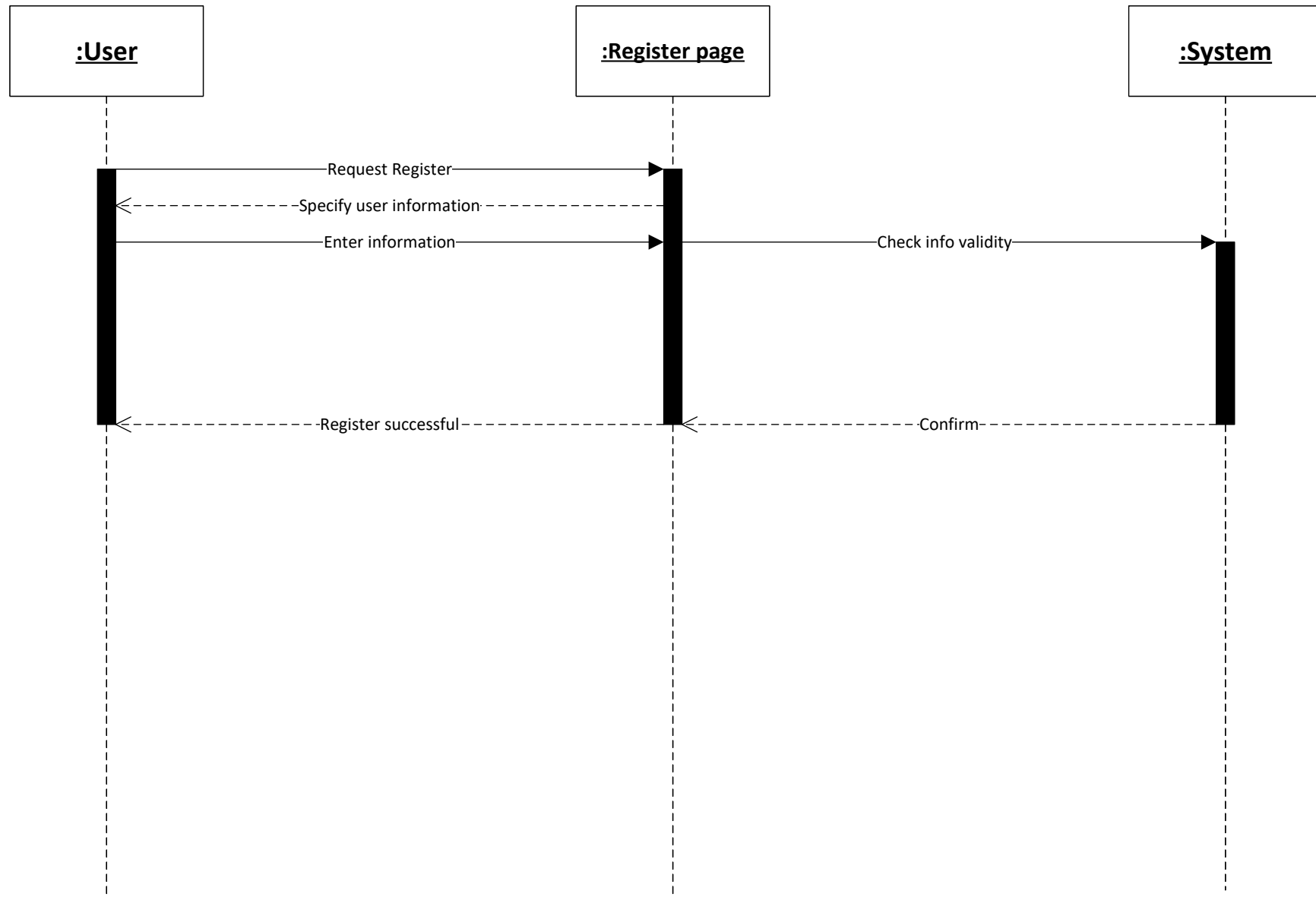
Sequence Diagram: Apply for cloudy space



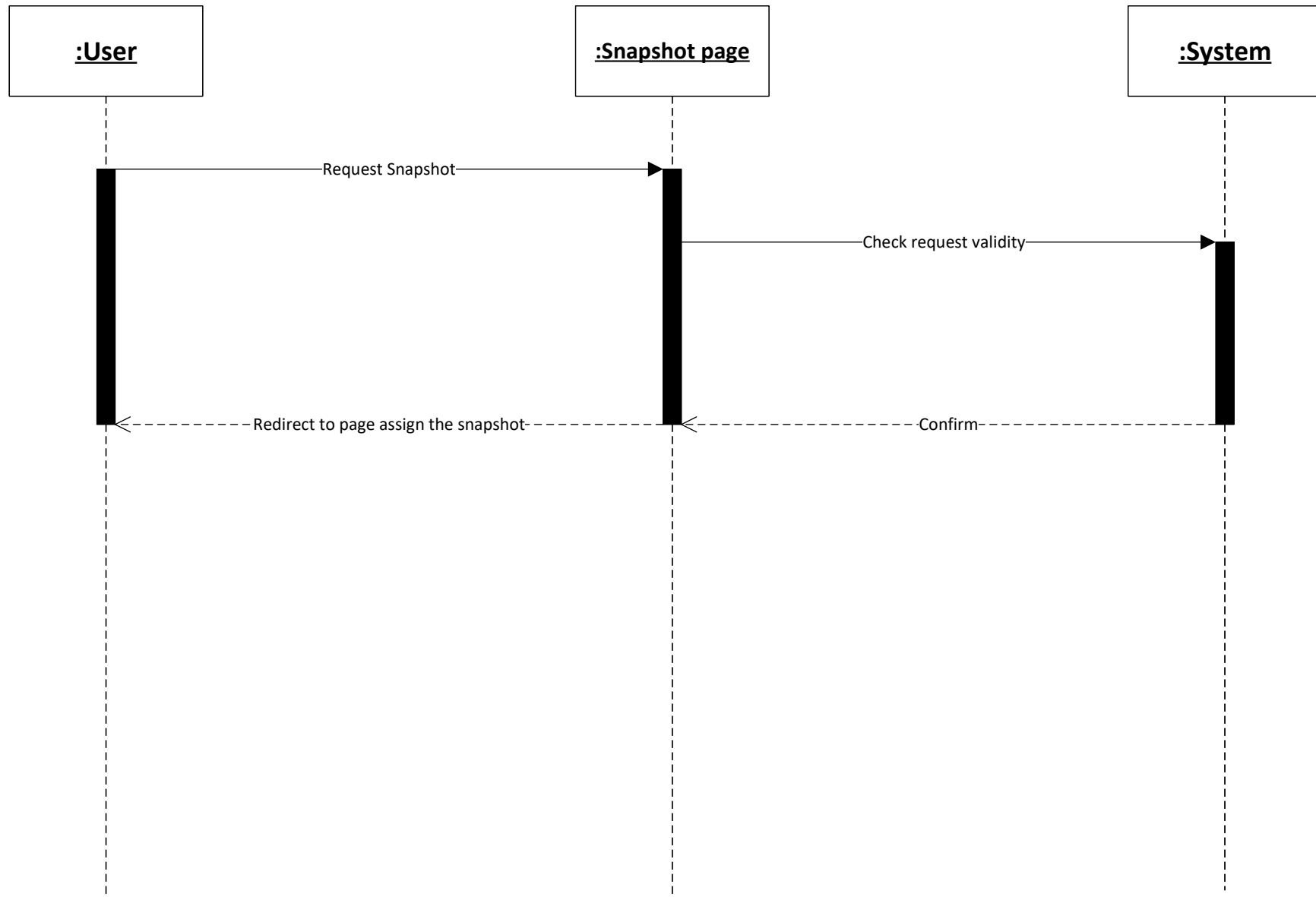
Sequence Diagram: CDN request



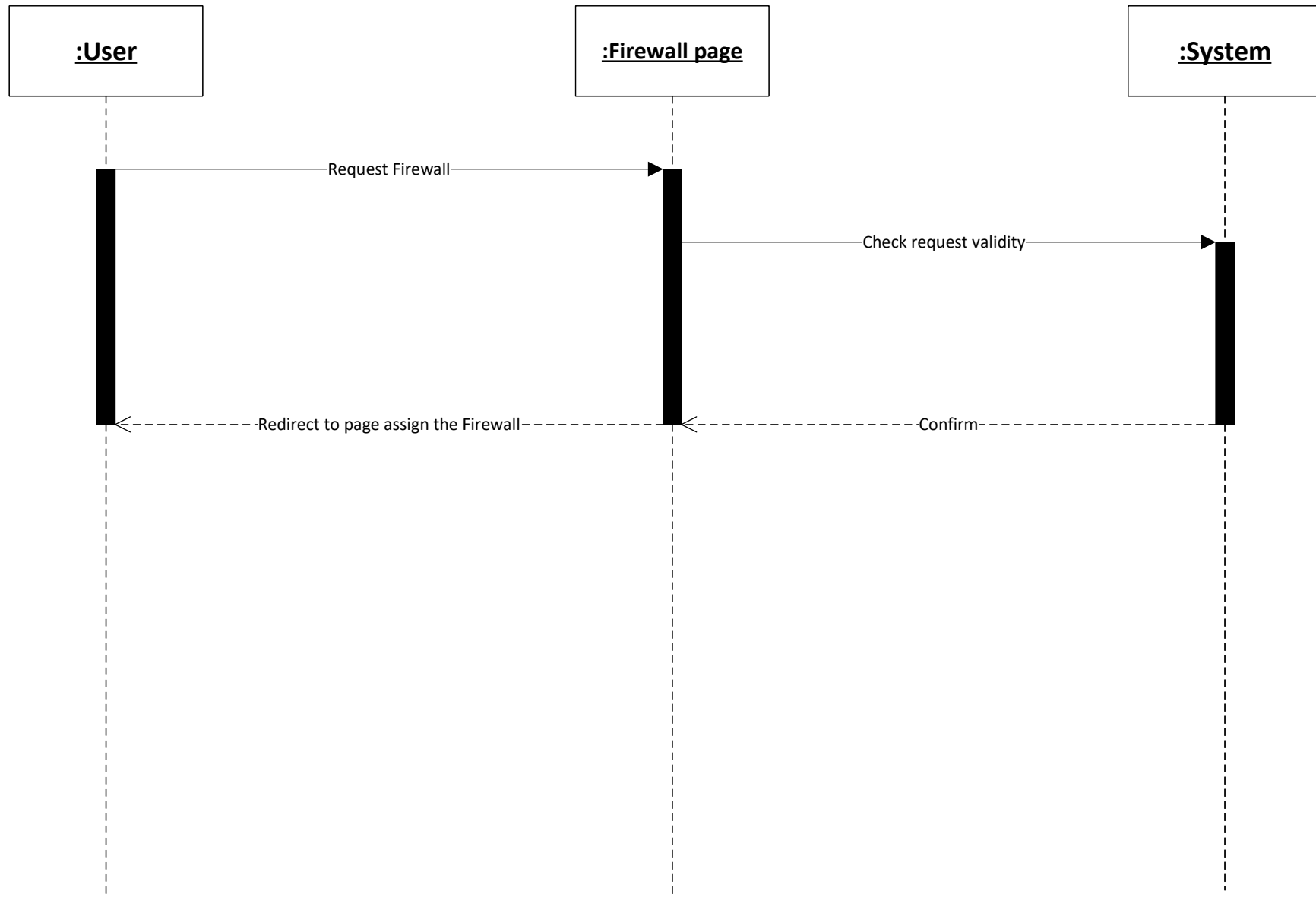
Sequence Diagram: Register



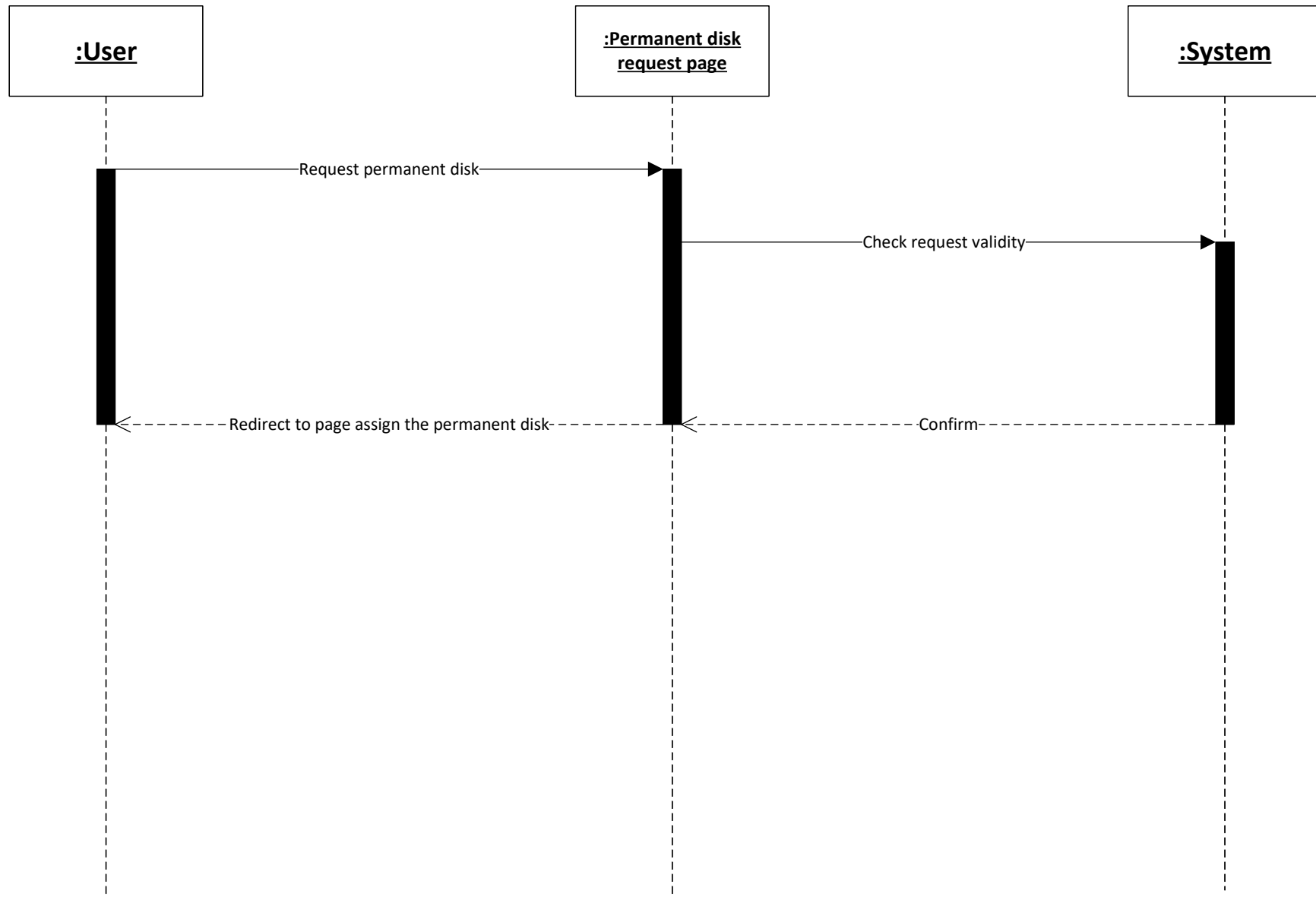
Sequence Diagram: Request snapshot



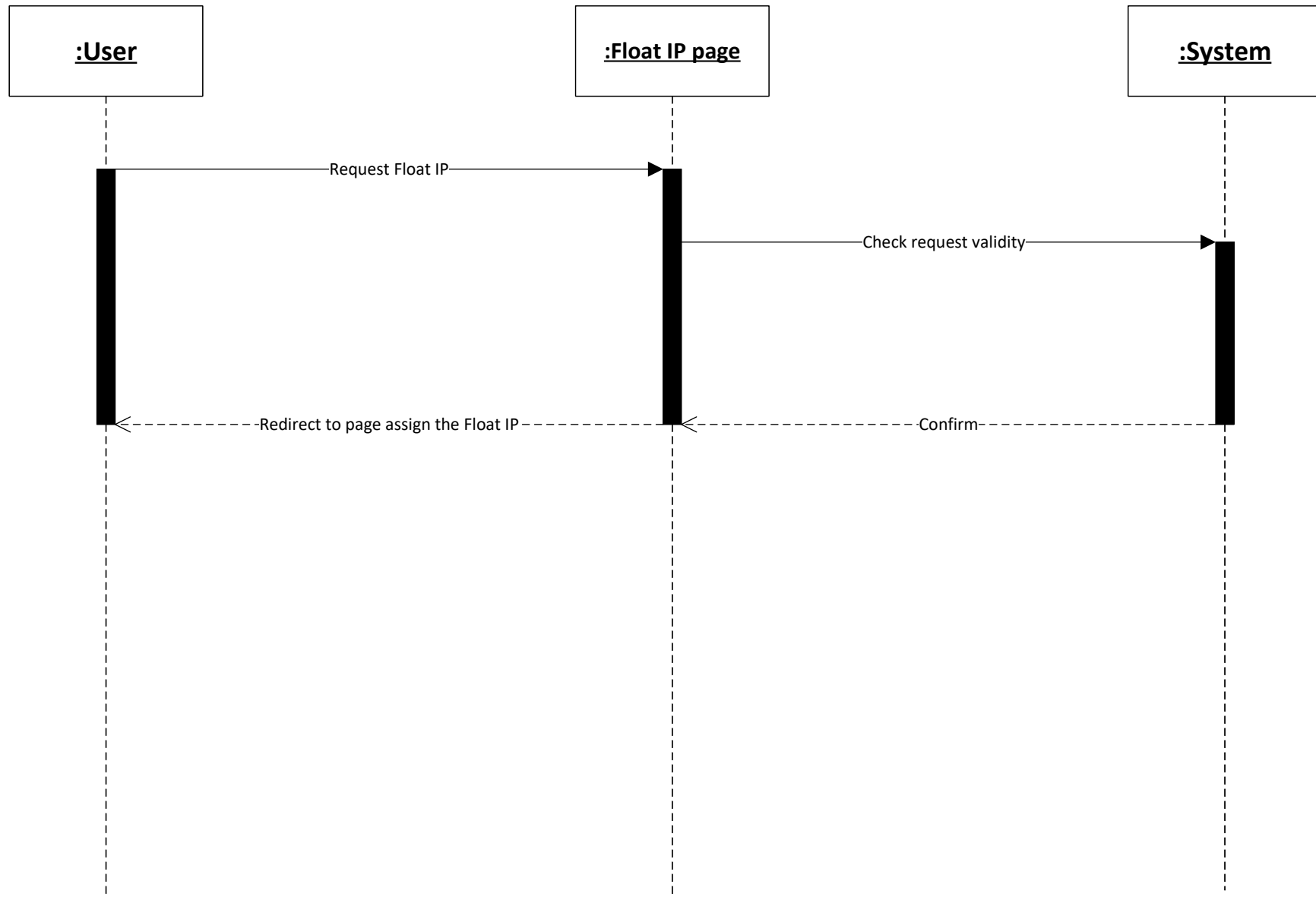
Sequence Diagram: Request Firewall



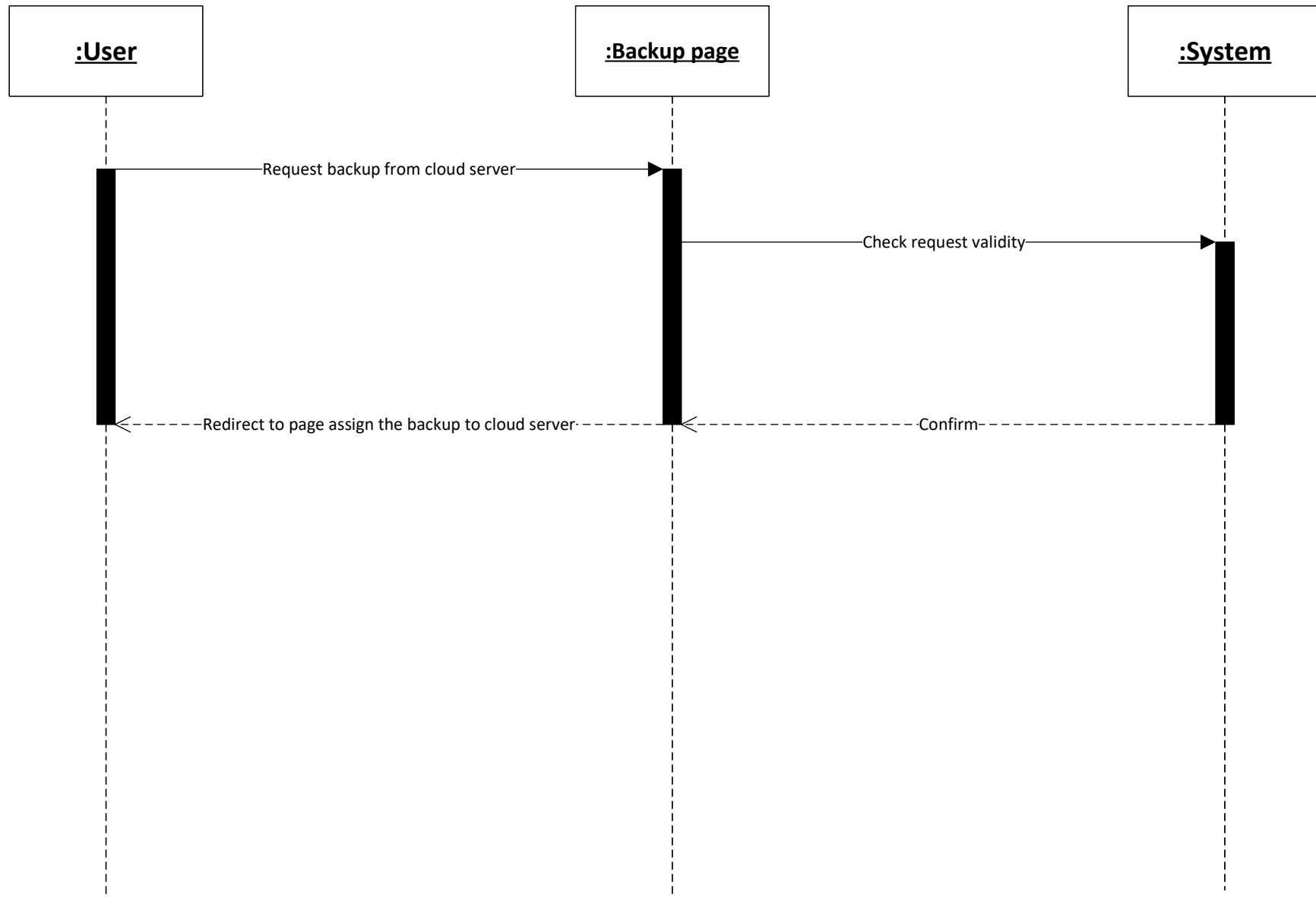
Sequence Diagram: Request permanent disk



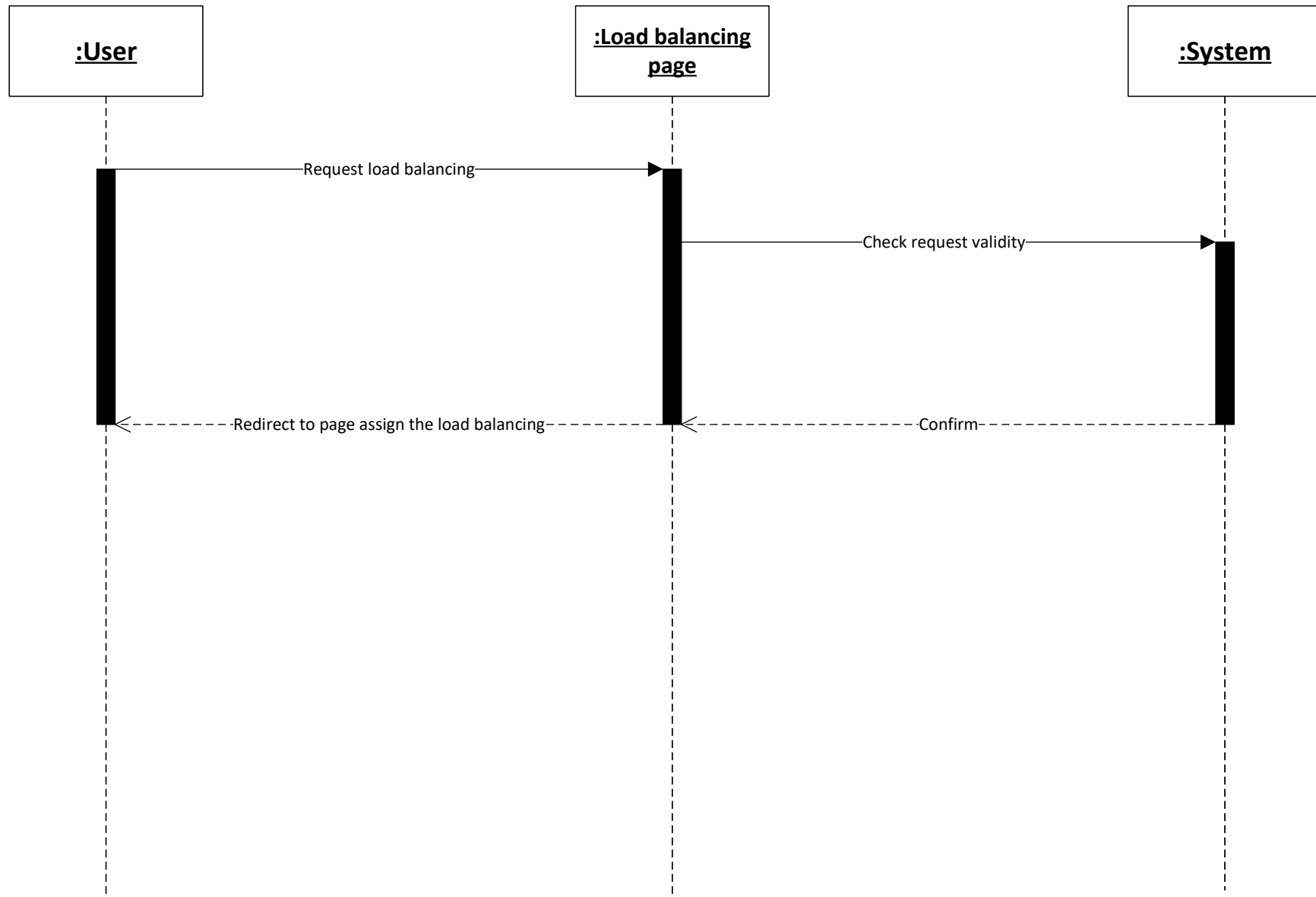
Sequence Diagram: Request Float IP



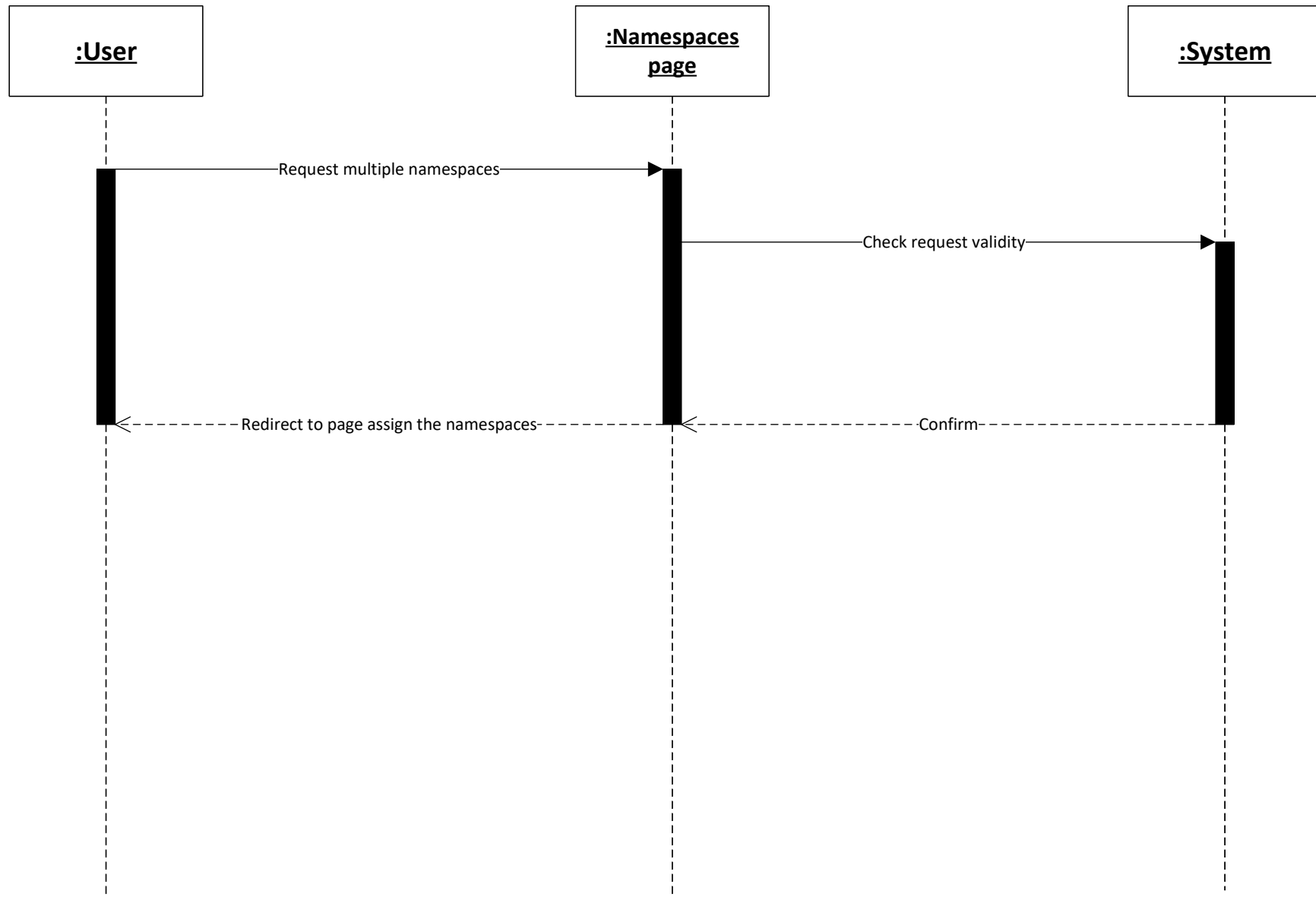
Sequence Diagram: Request backup from cloud server



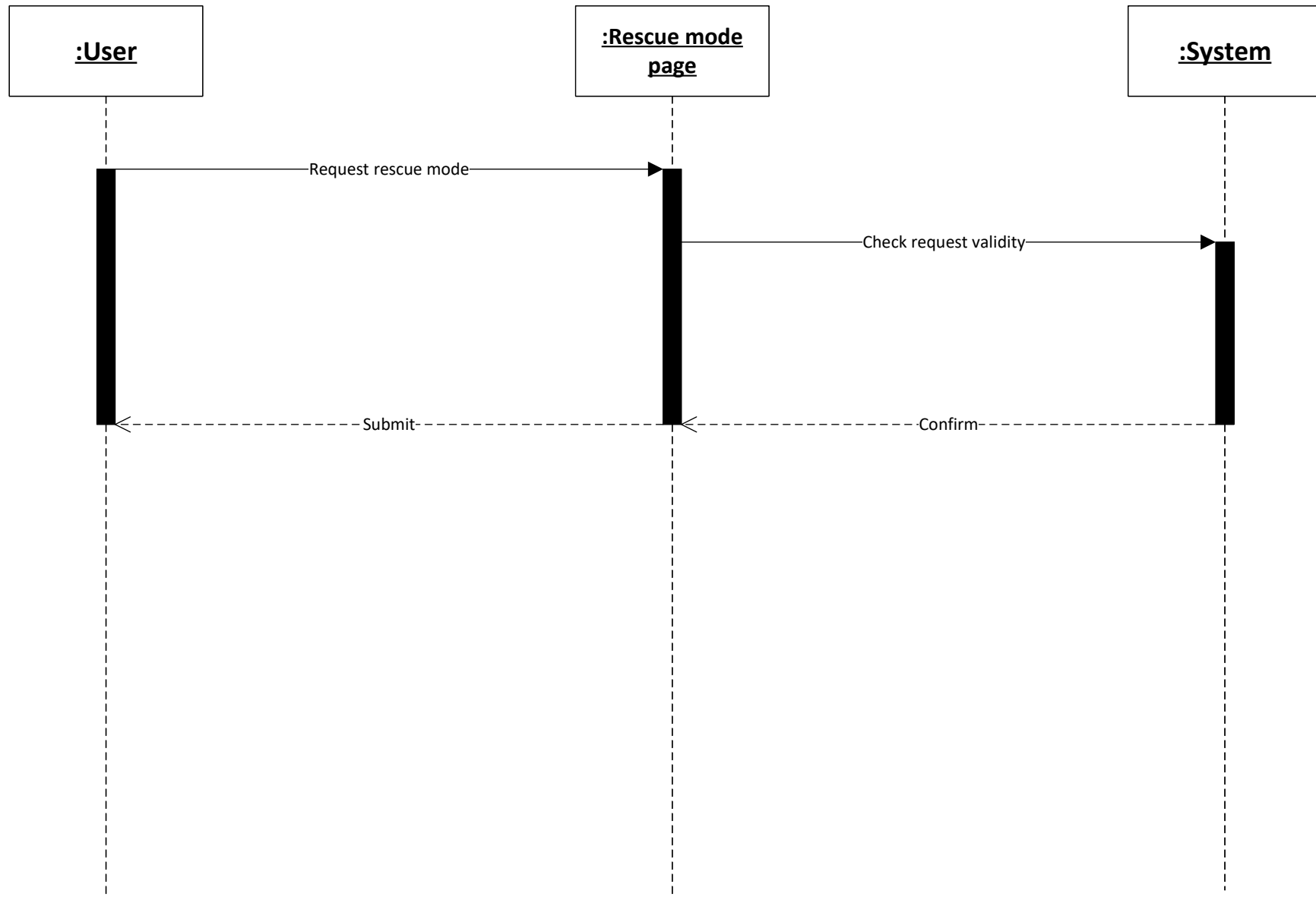
Sequence Diagram: Request load balancing



Sequence Diagram: Request multiple namespaces

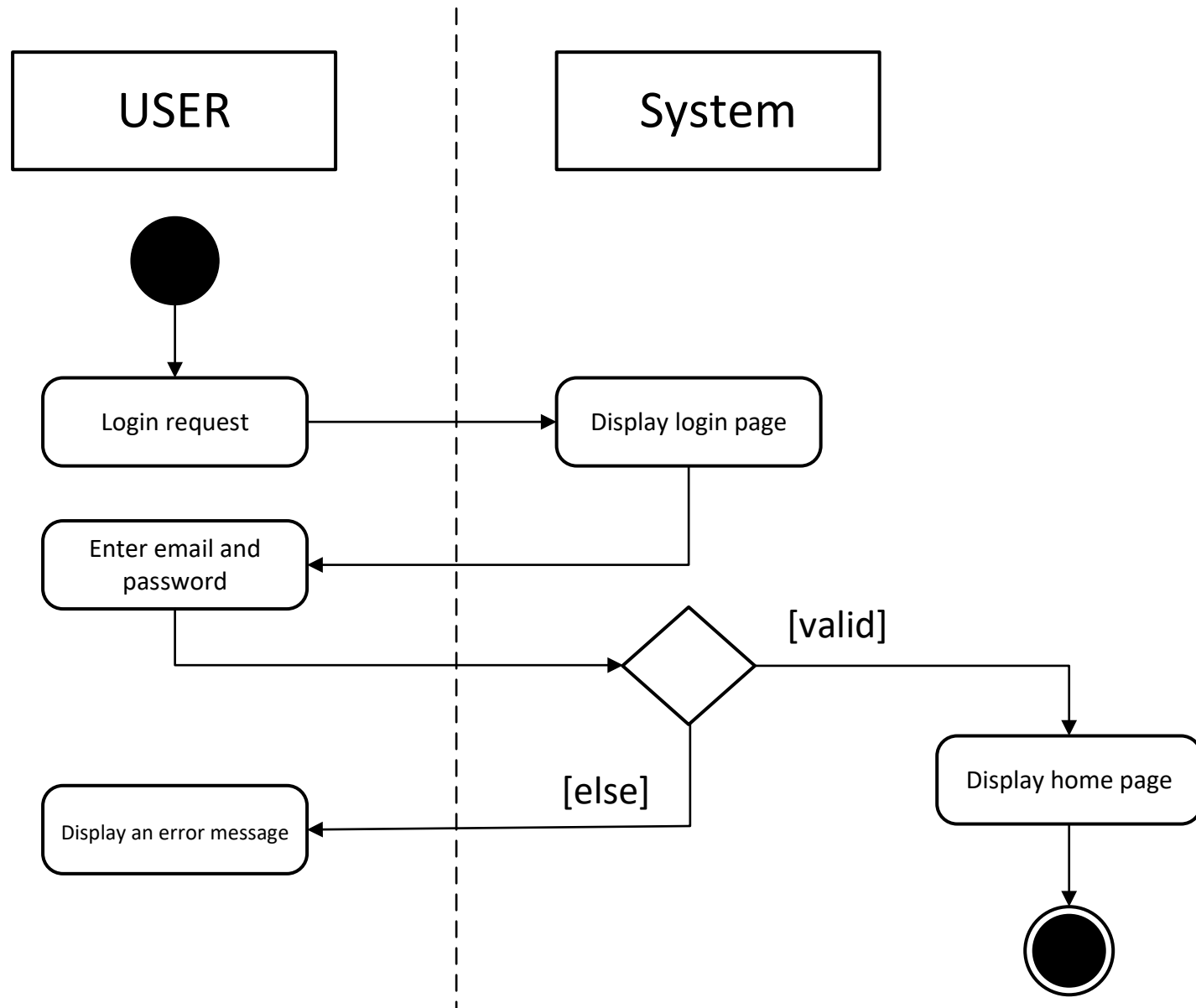


Sequence Diagram: Request rescue mode

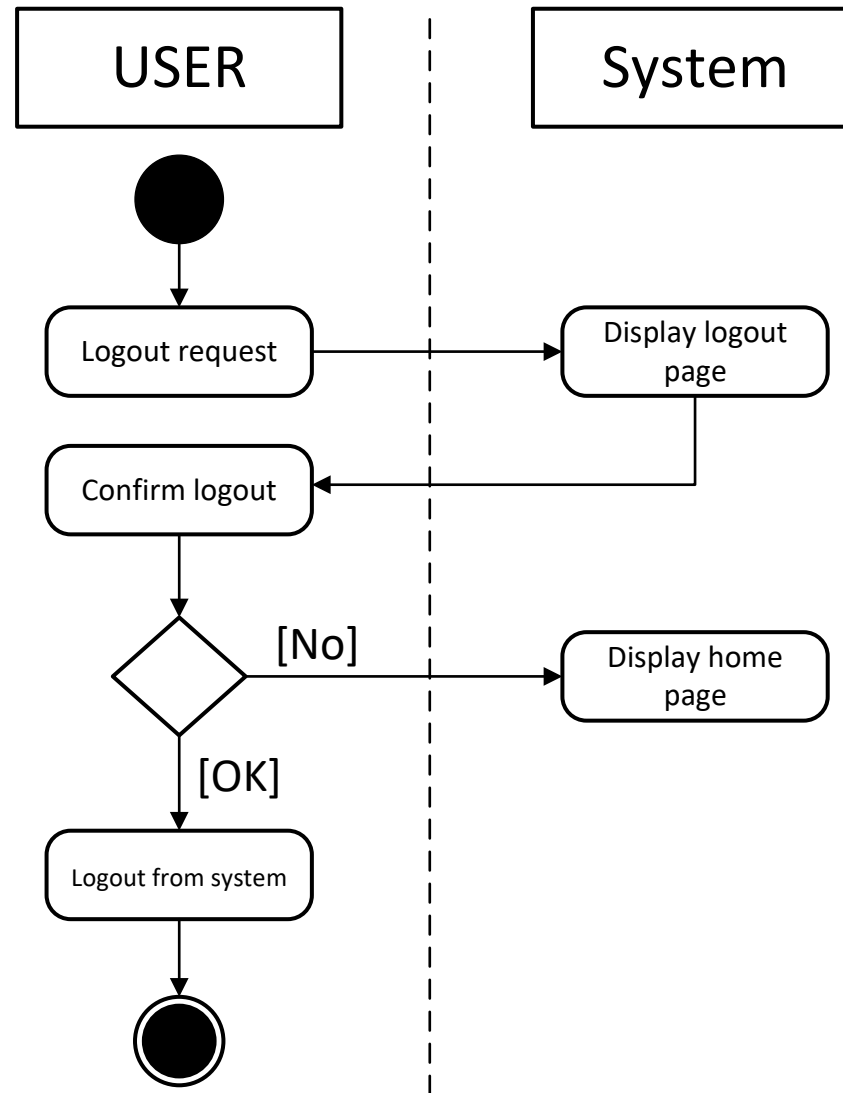


Activity Diagram

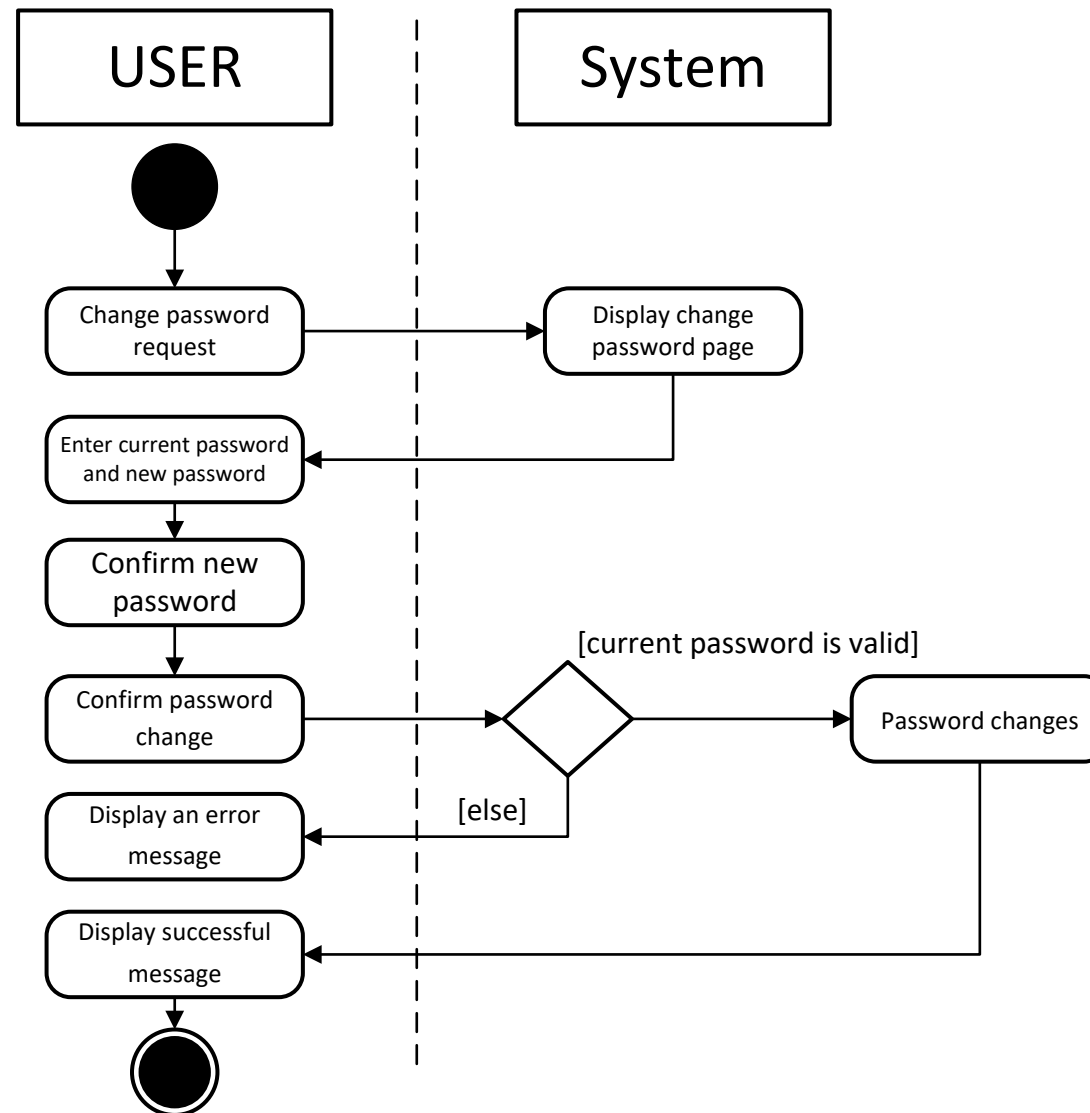
Activity Diagram: Login with account



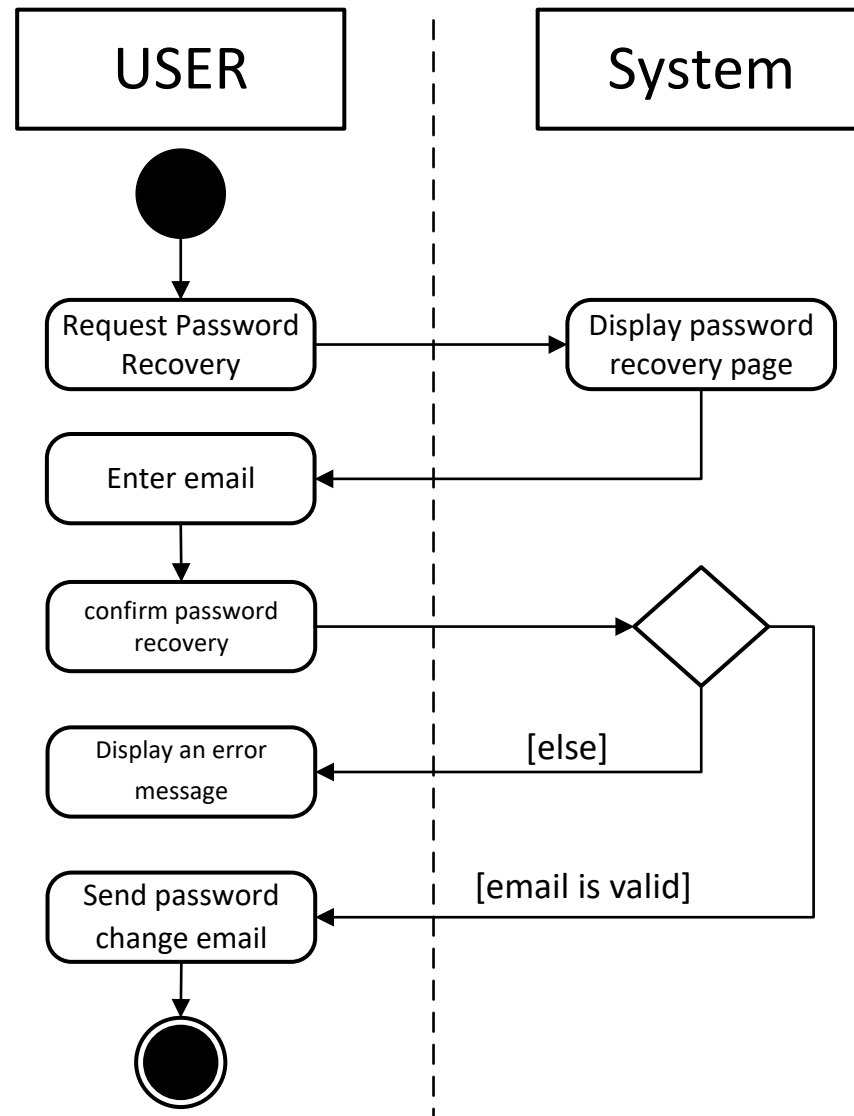
Activity Diagram: Logout



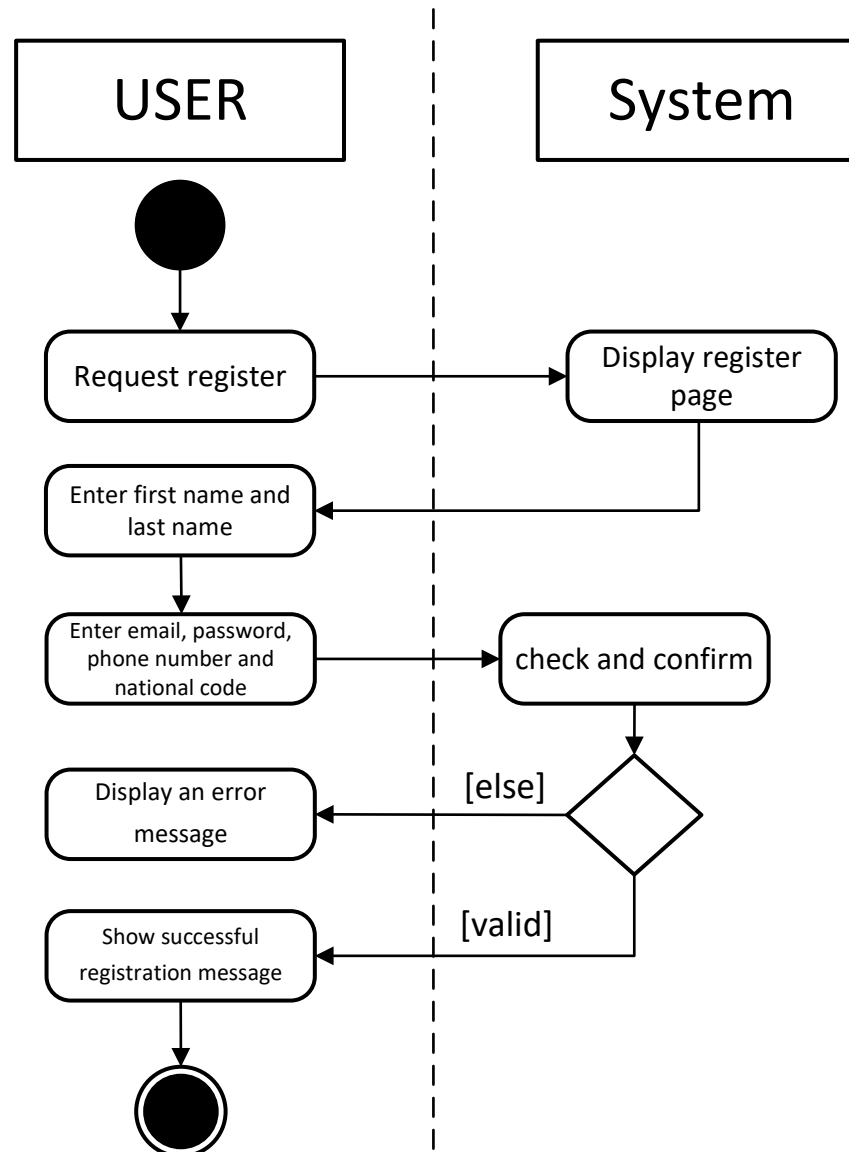
Activity Diagram: Change password



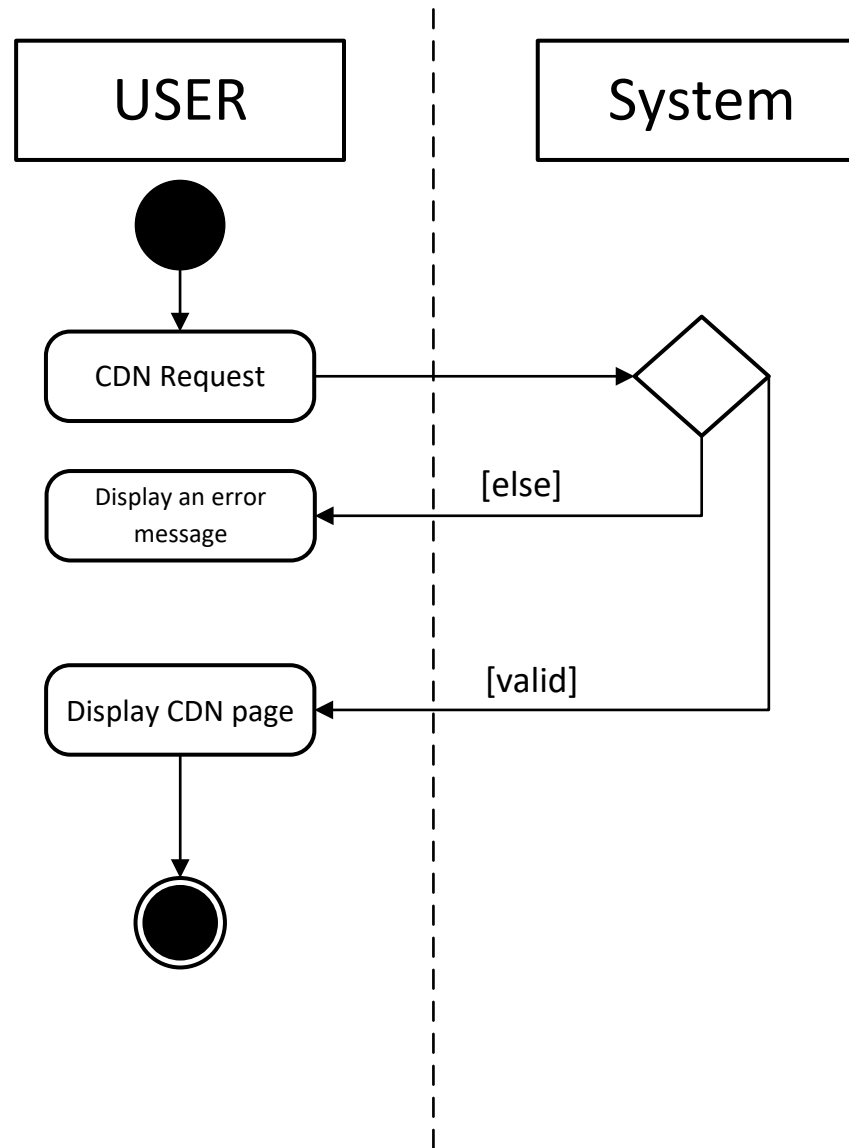
Activity Diagram: Request Password Recovery



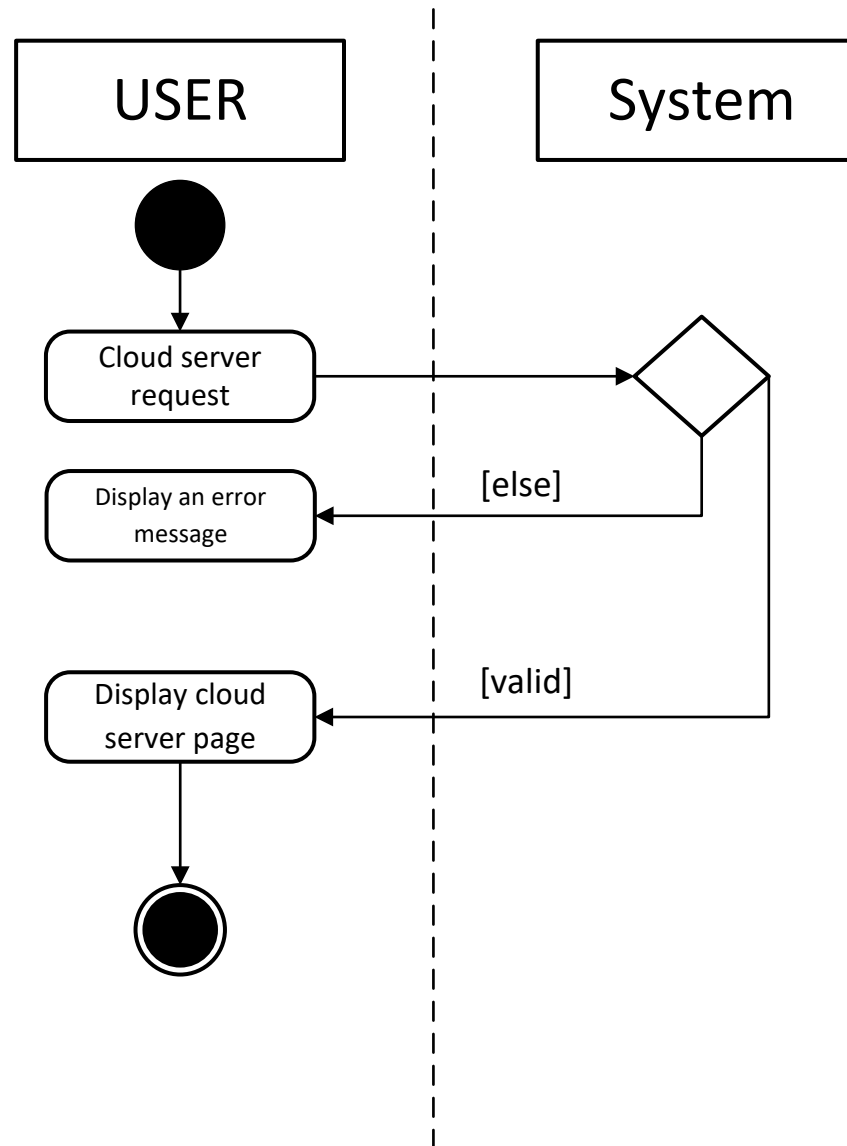
Activity Diagram: Register



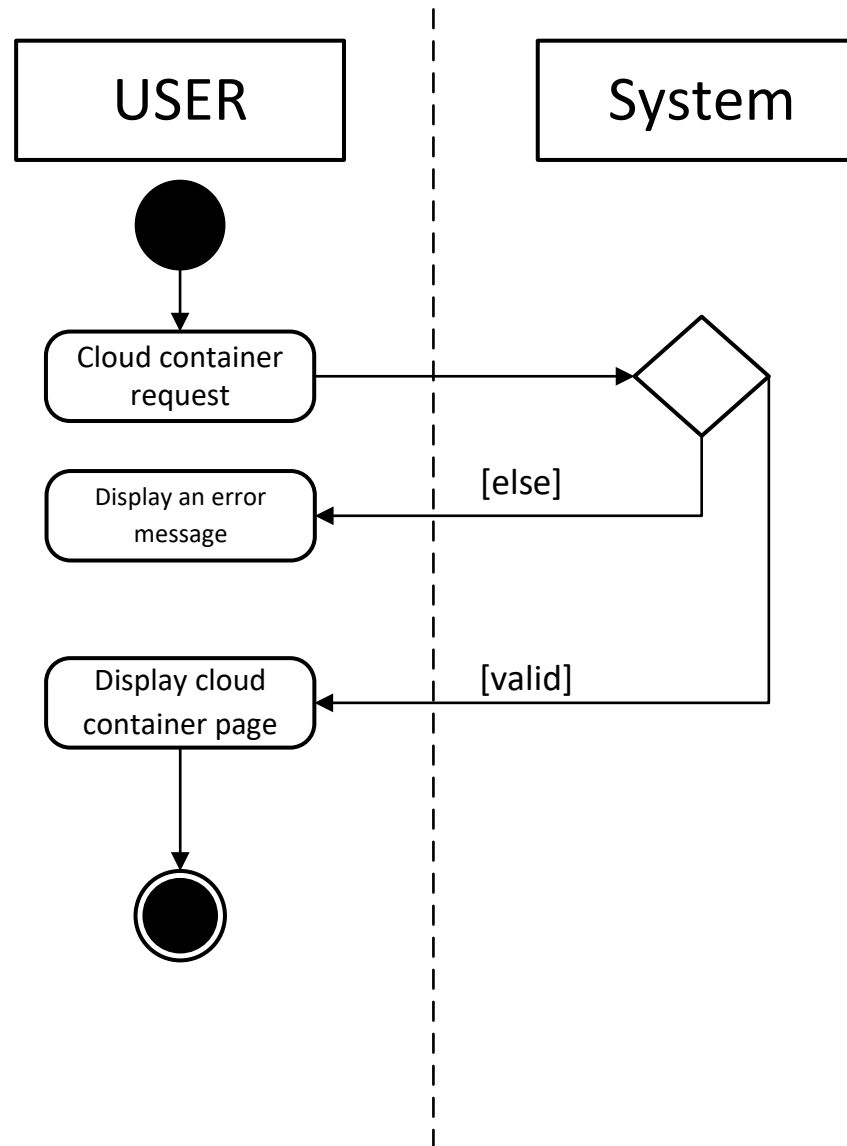
Activity Diagram: CDN request



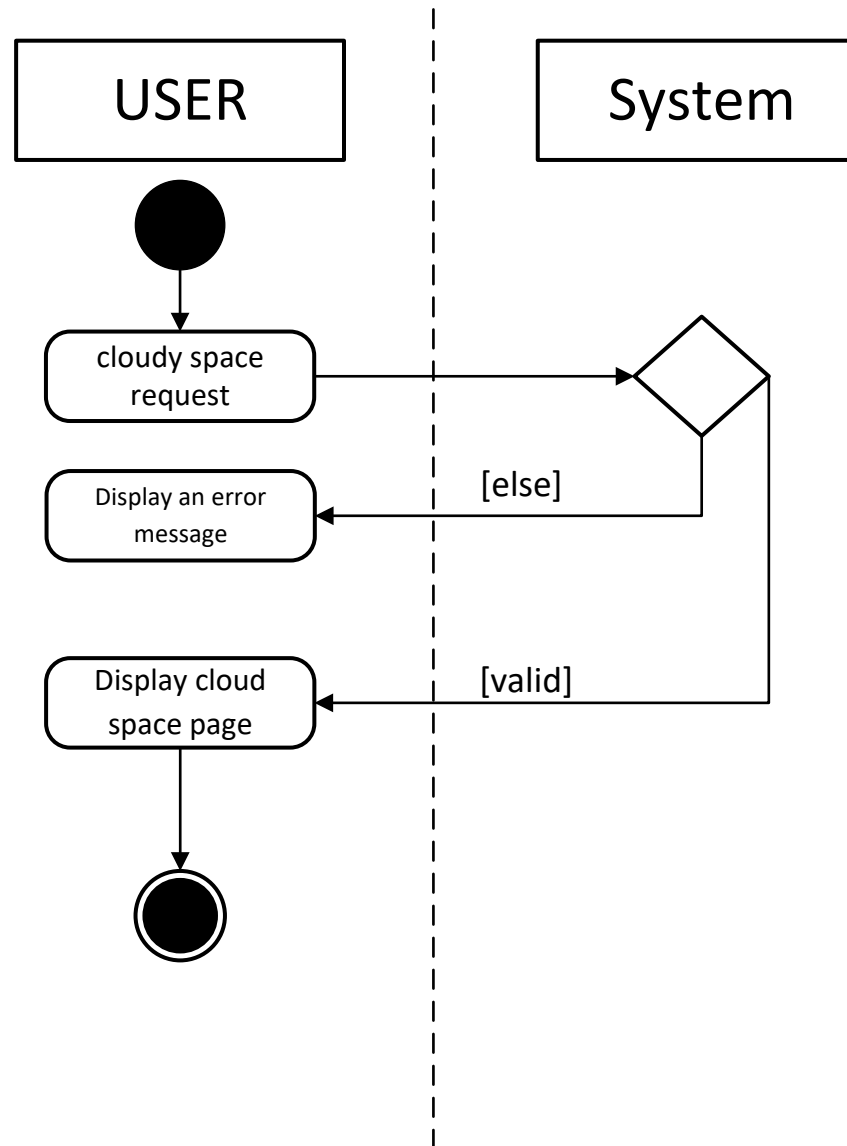
Activity Diagram: Cloud server request



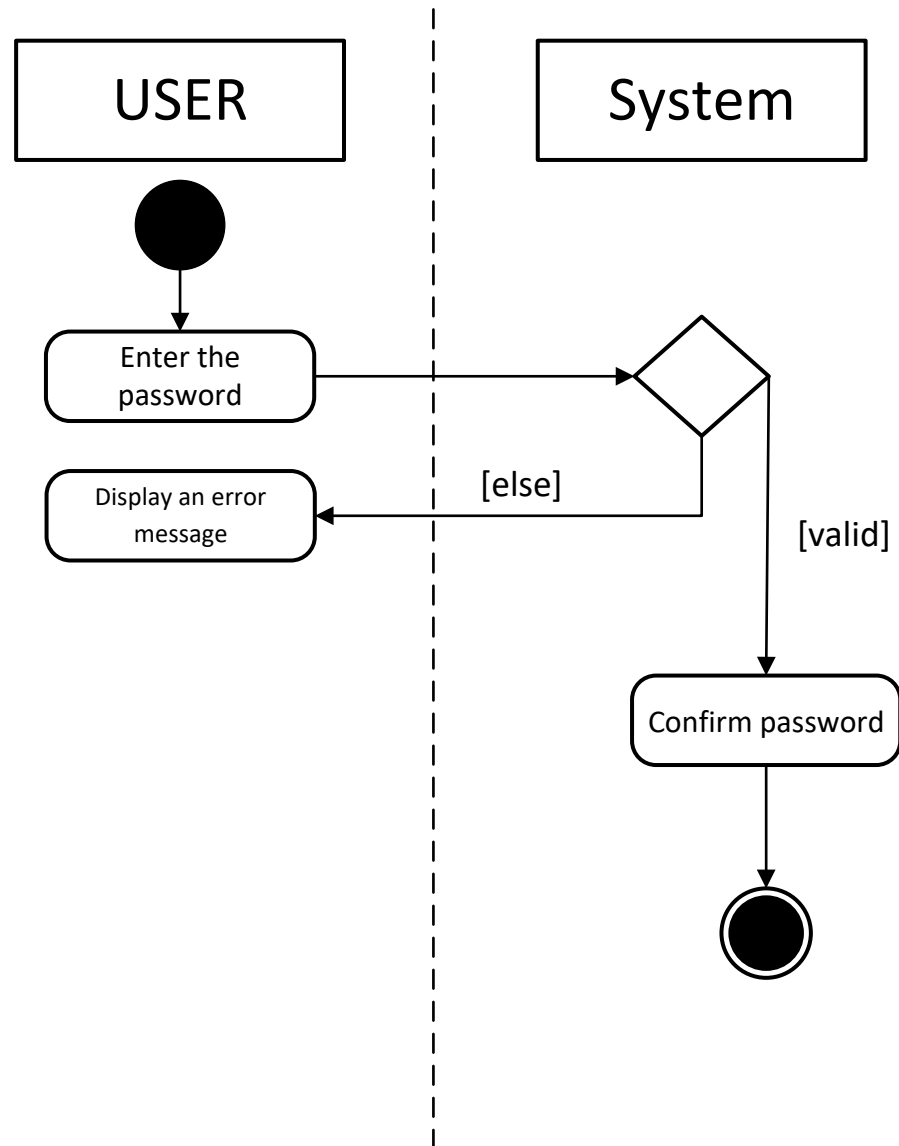
Activity Diagram: Cloud container request



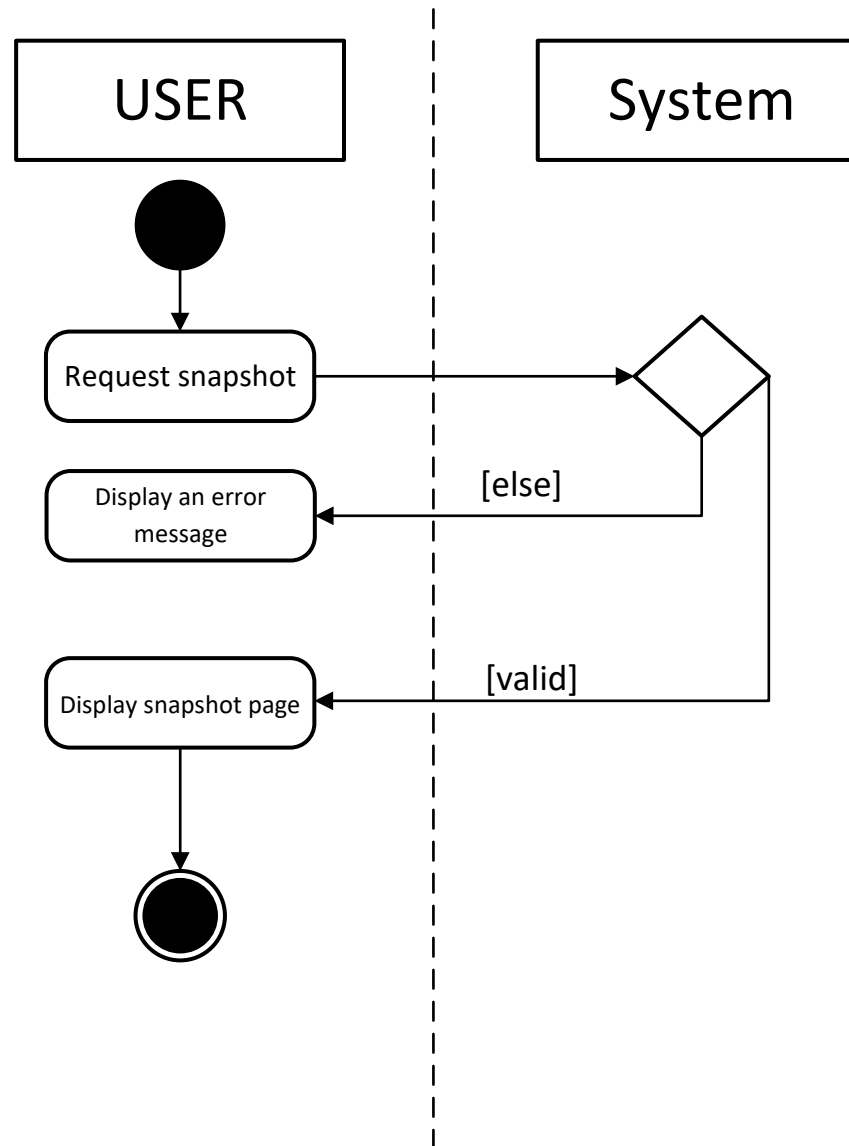
Activity Diagram: Apply for cloudy space



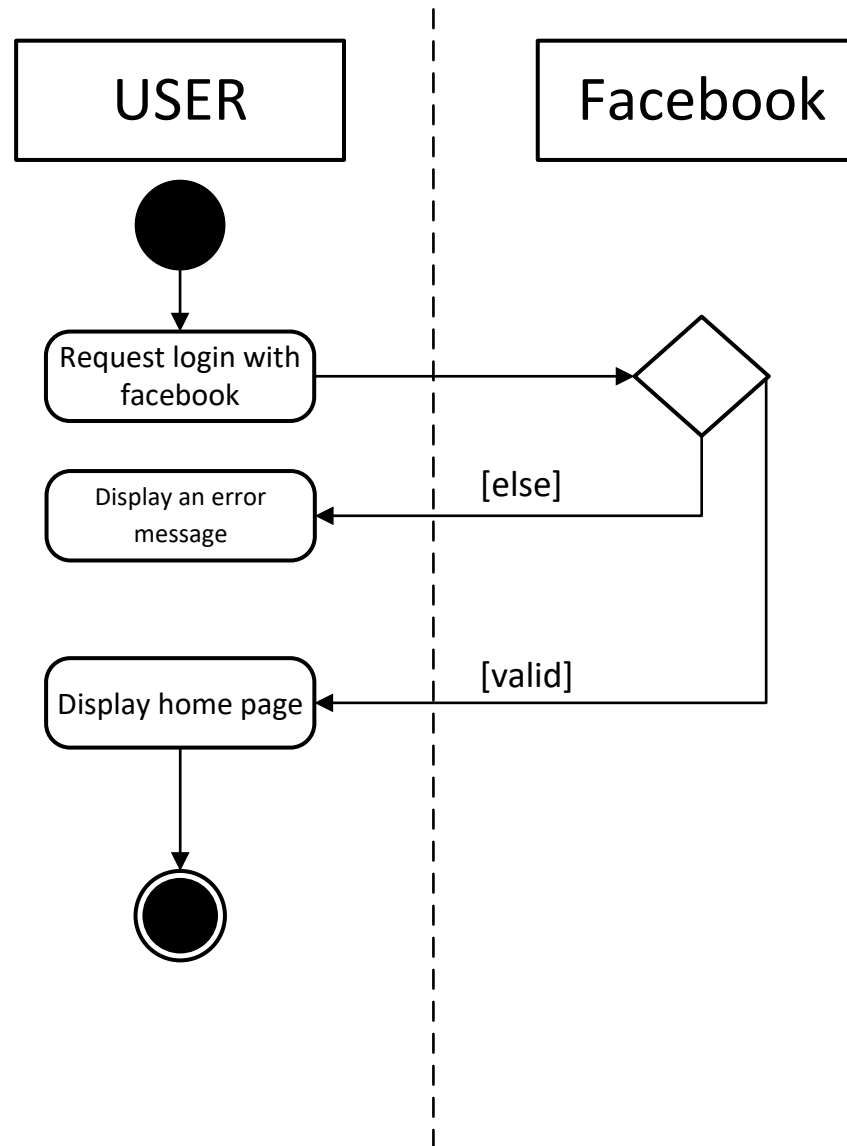
Activity Diagram: Verify password



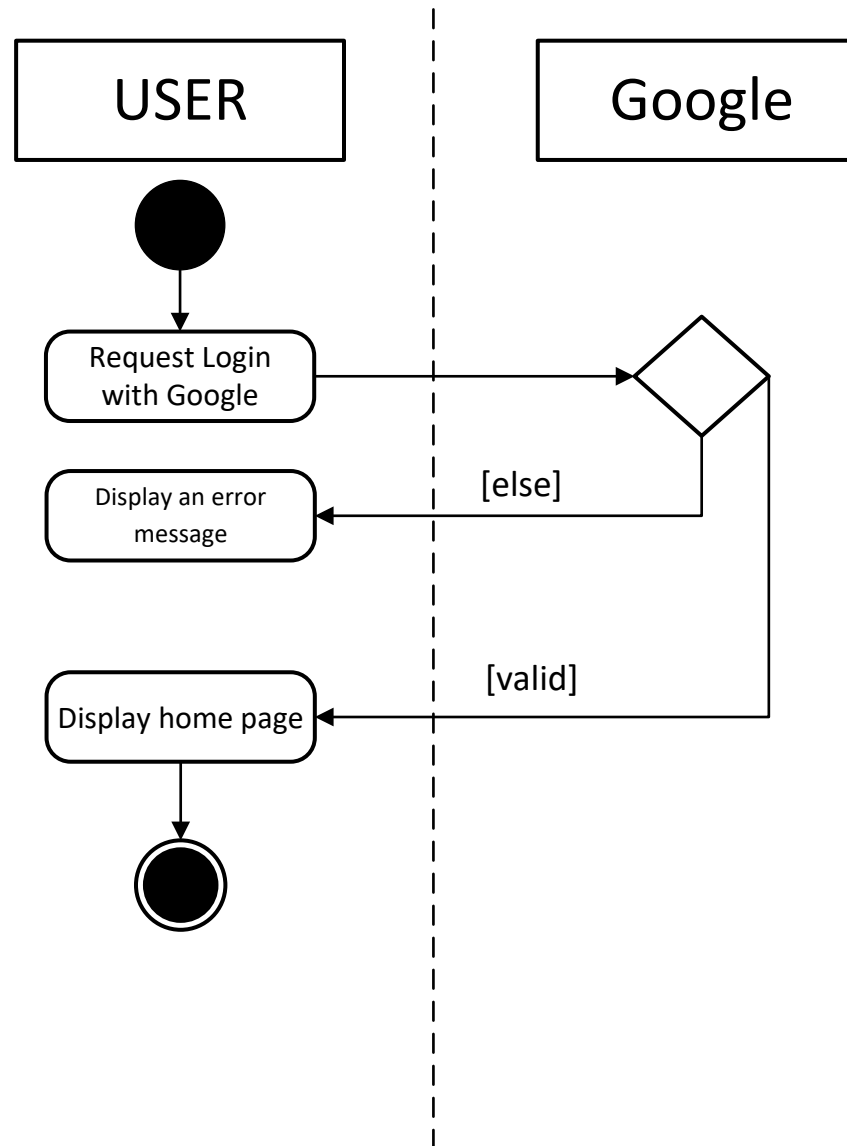
Activity Diagram: Request snapshot



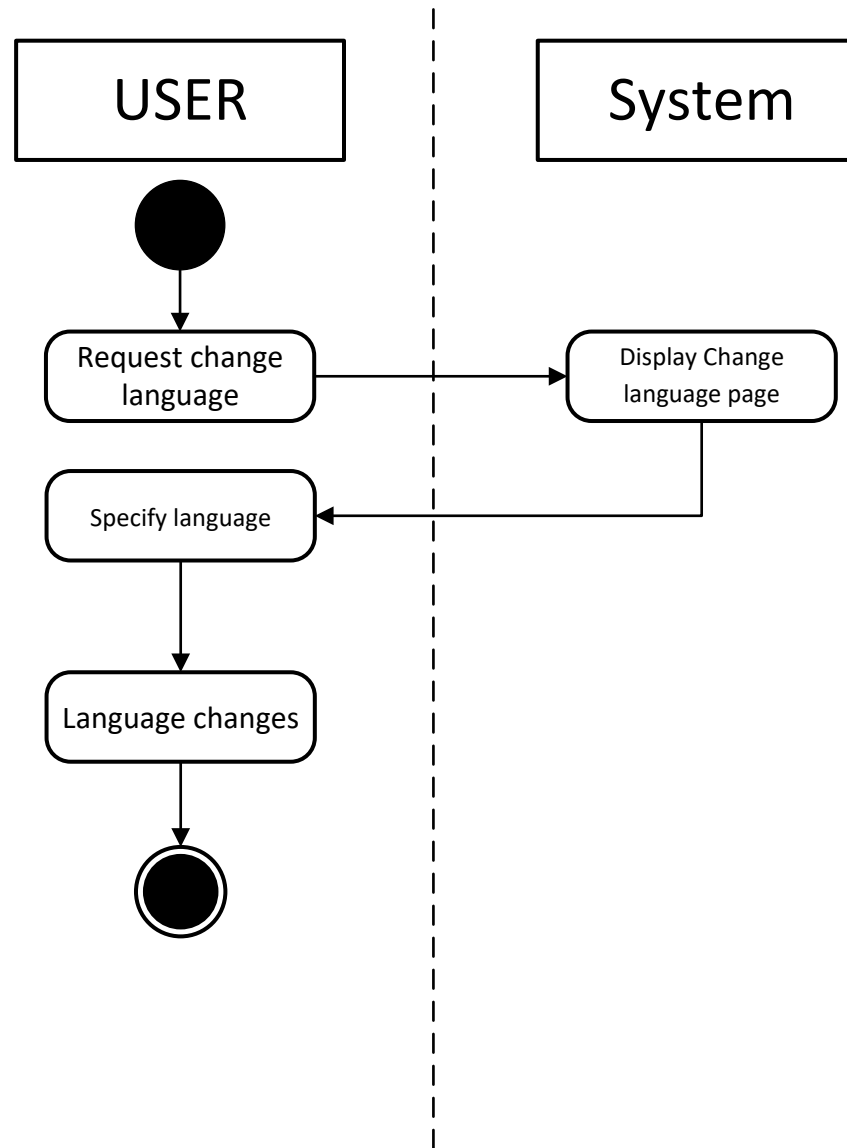
Activity Diagram: Login with facebook



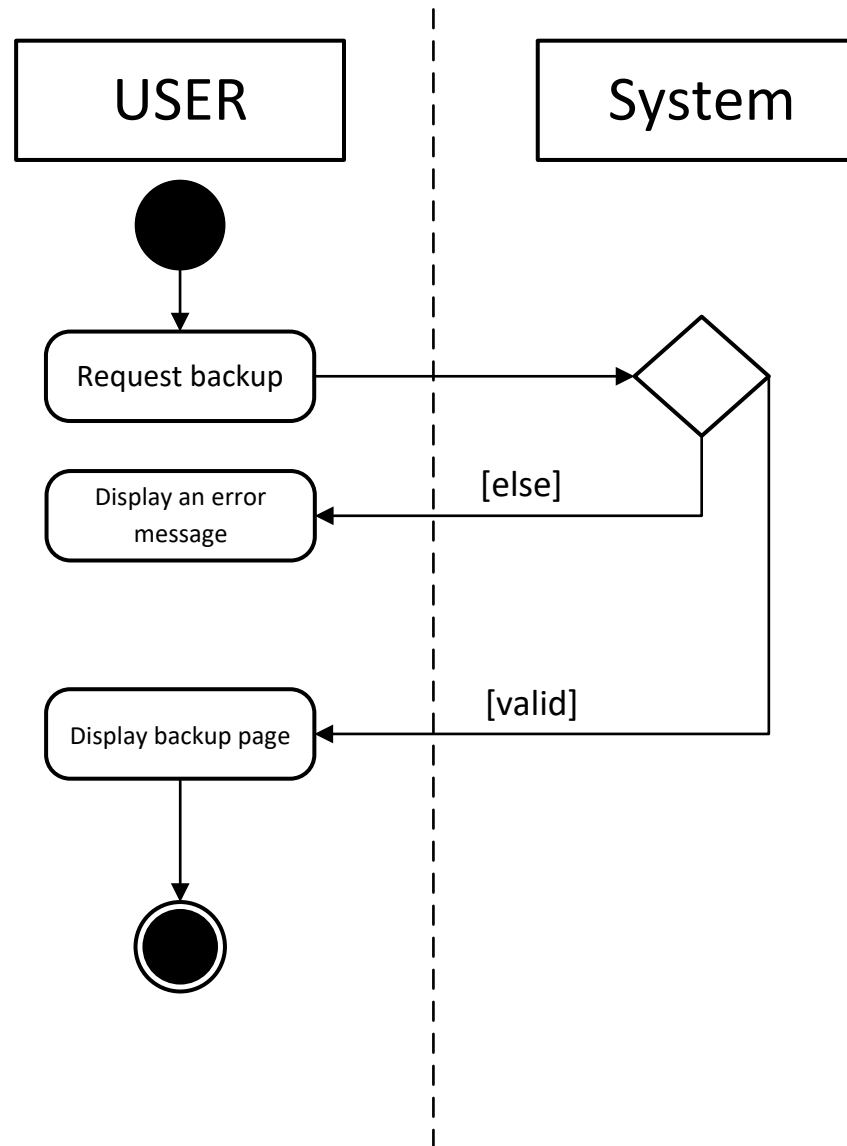
Activity Diagram: Login with Google



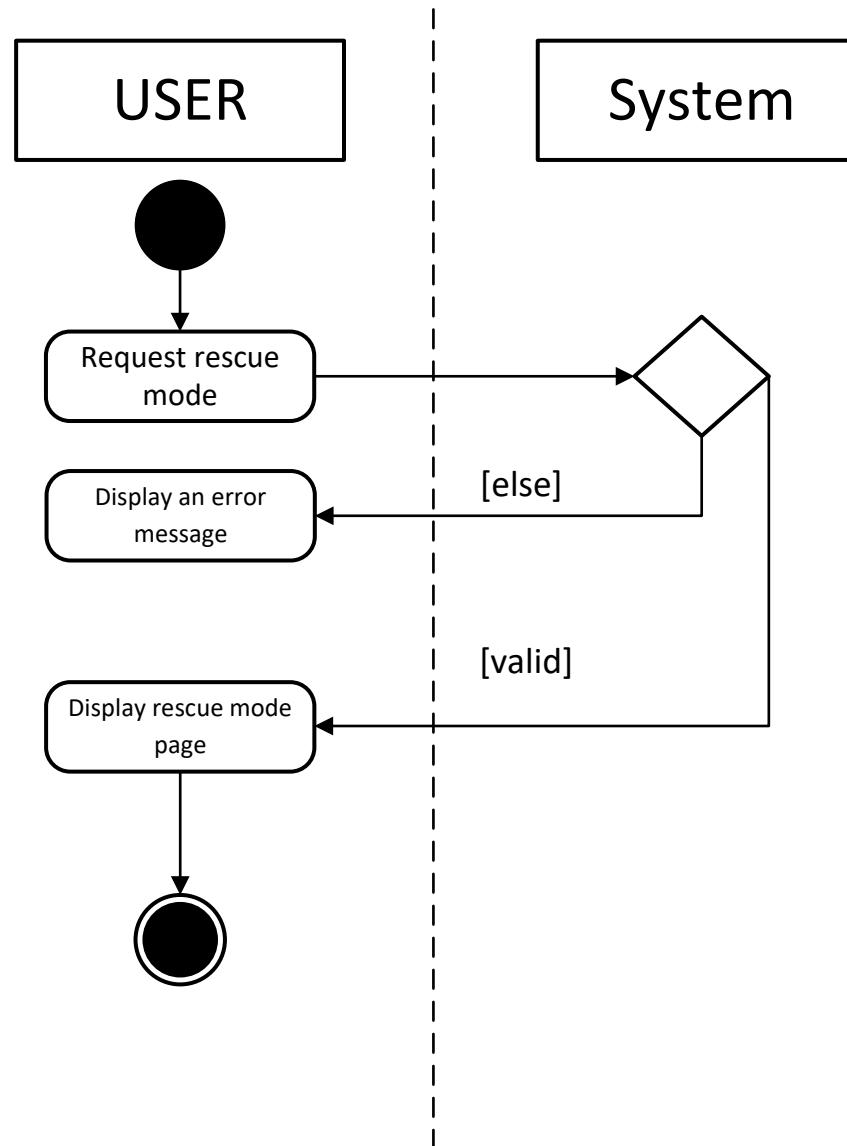
Activity Diagram: Change language



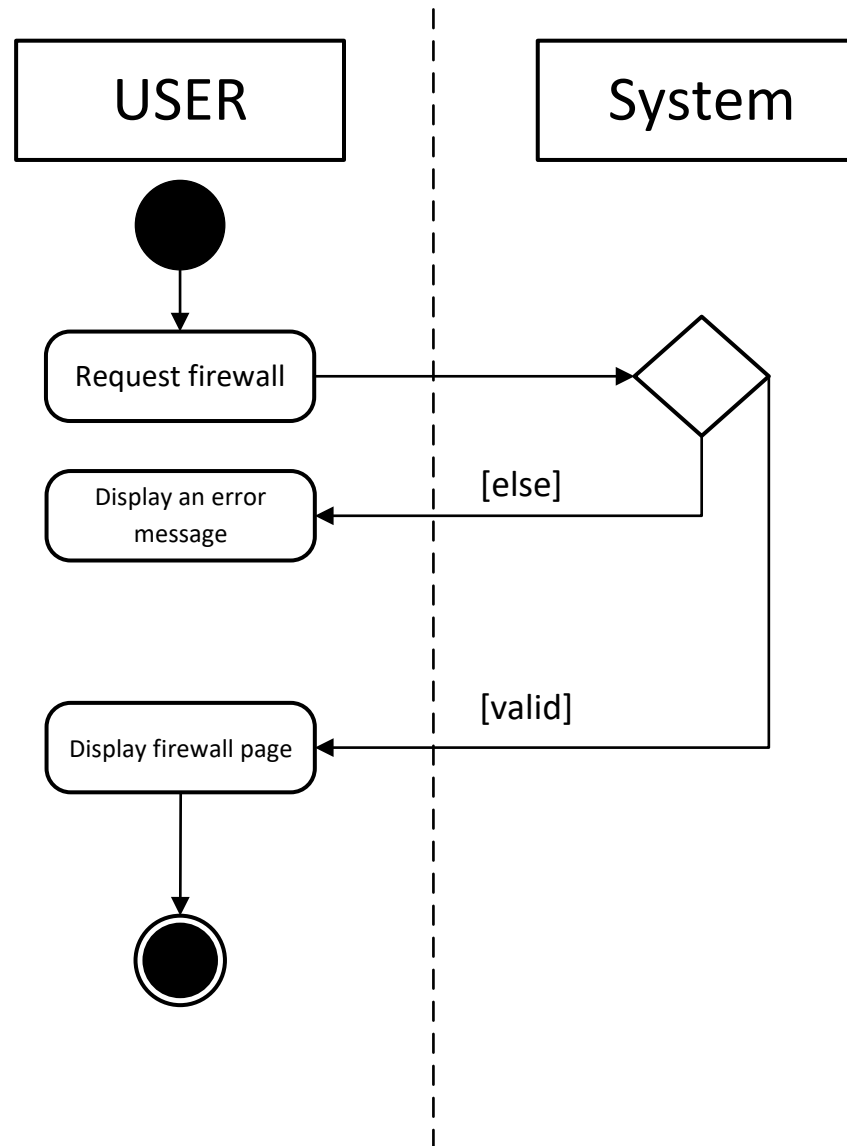
Activity Diagram: Request backup from cloud server



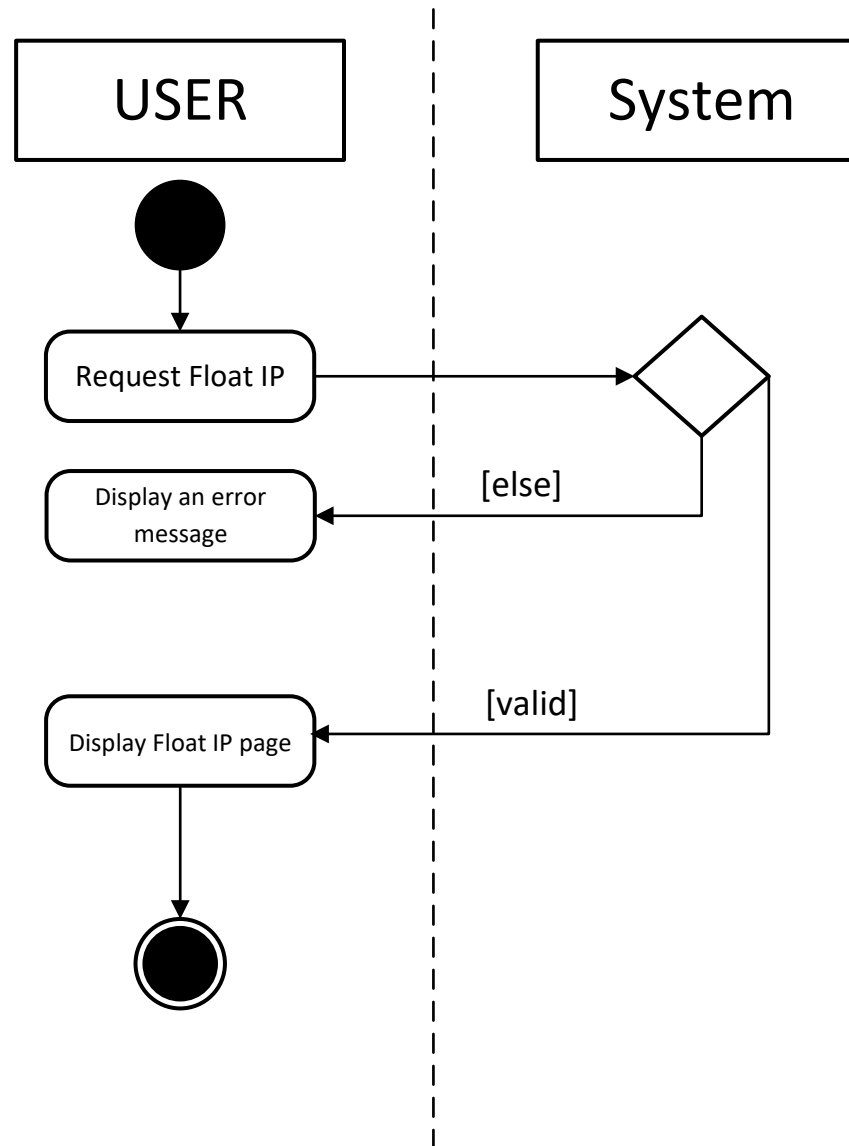
Activity Diagram: Request rescue mode



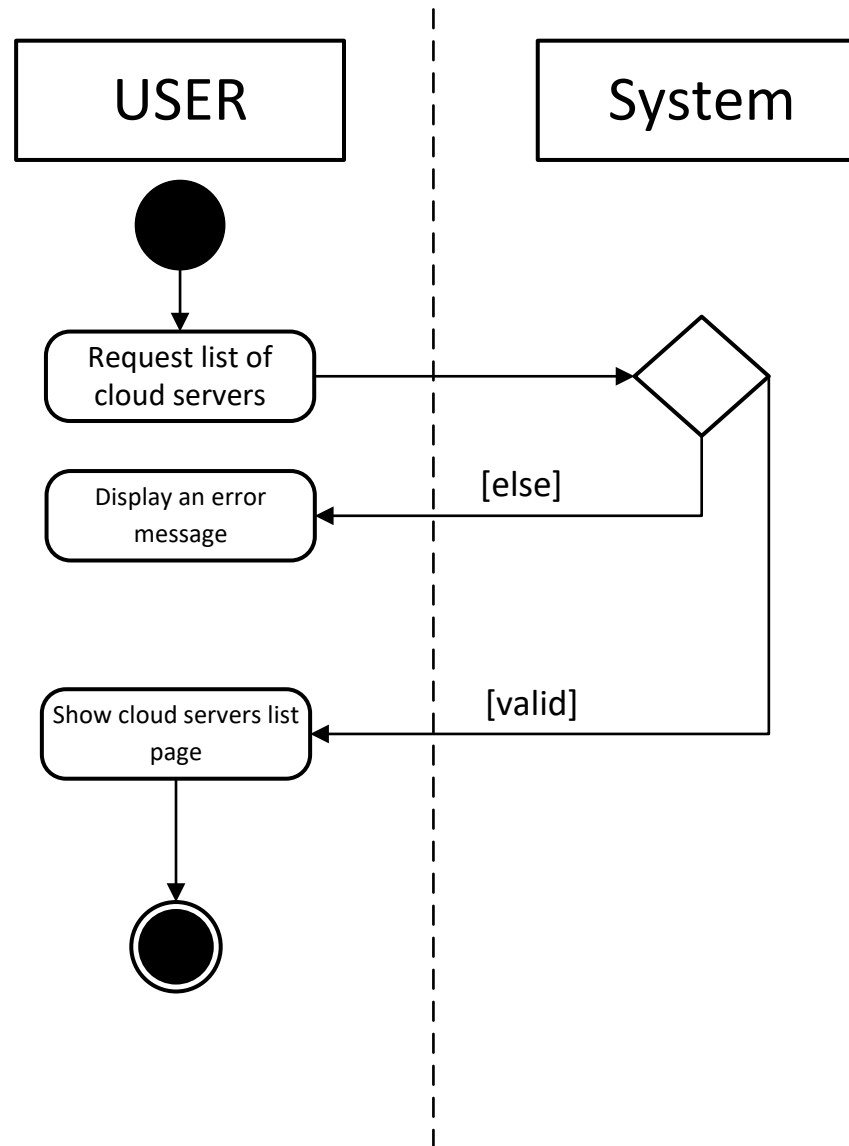
Activity Diagram: Request firewall



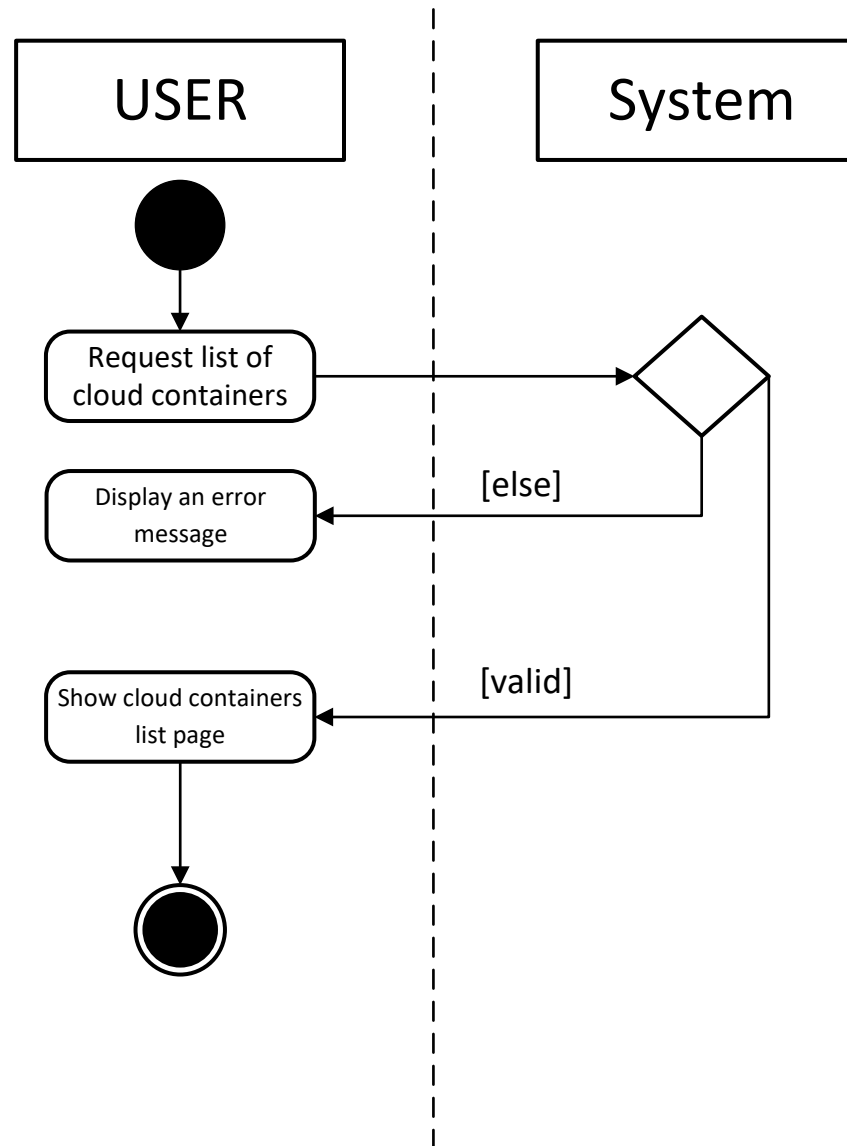
Activity Diagram: Request Float IP



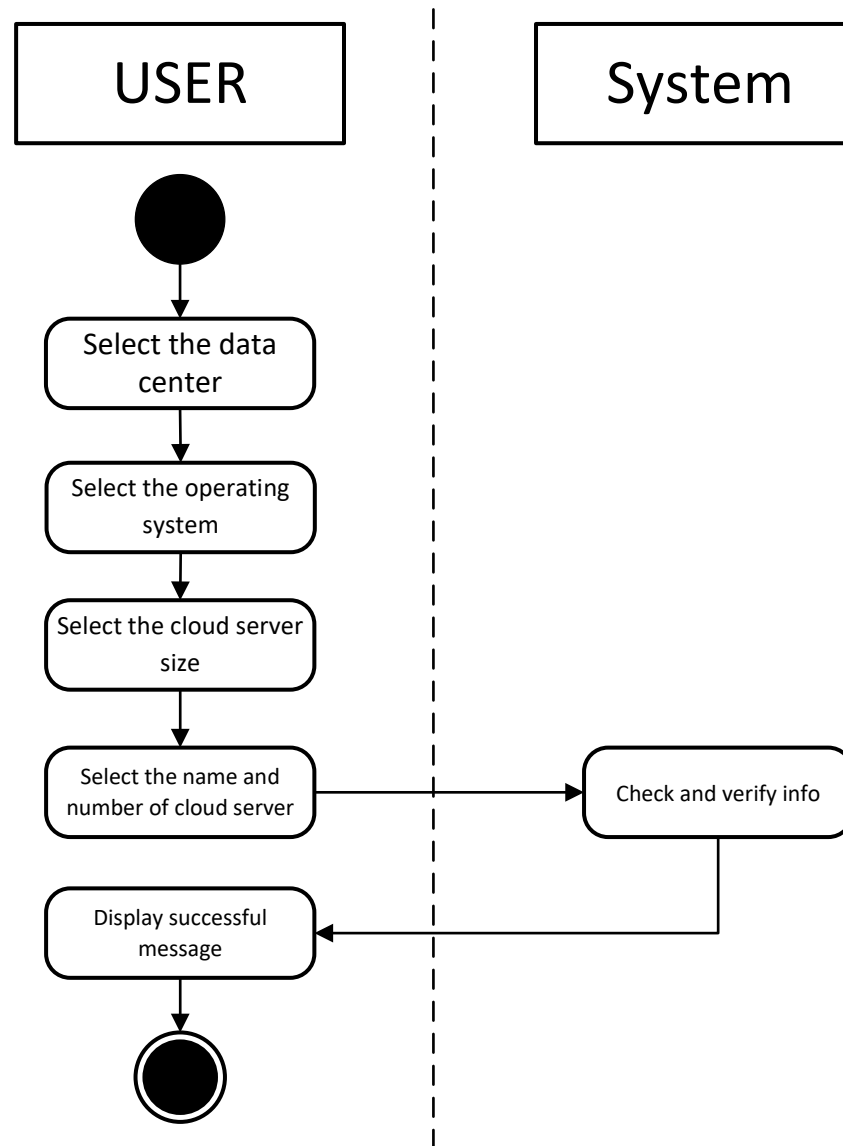
Activity Diagram: View the list of cloud servers



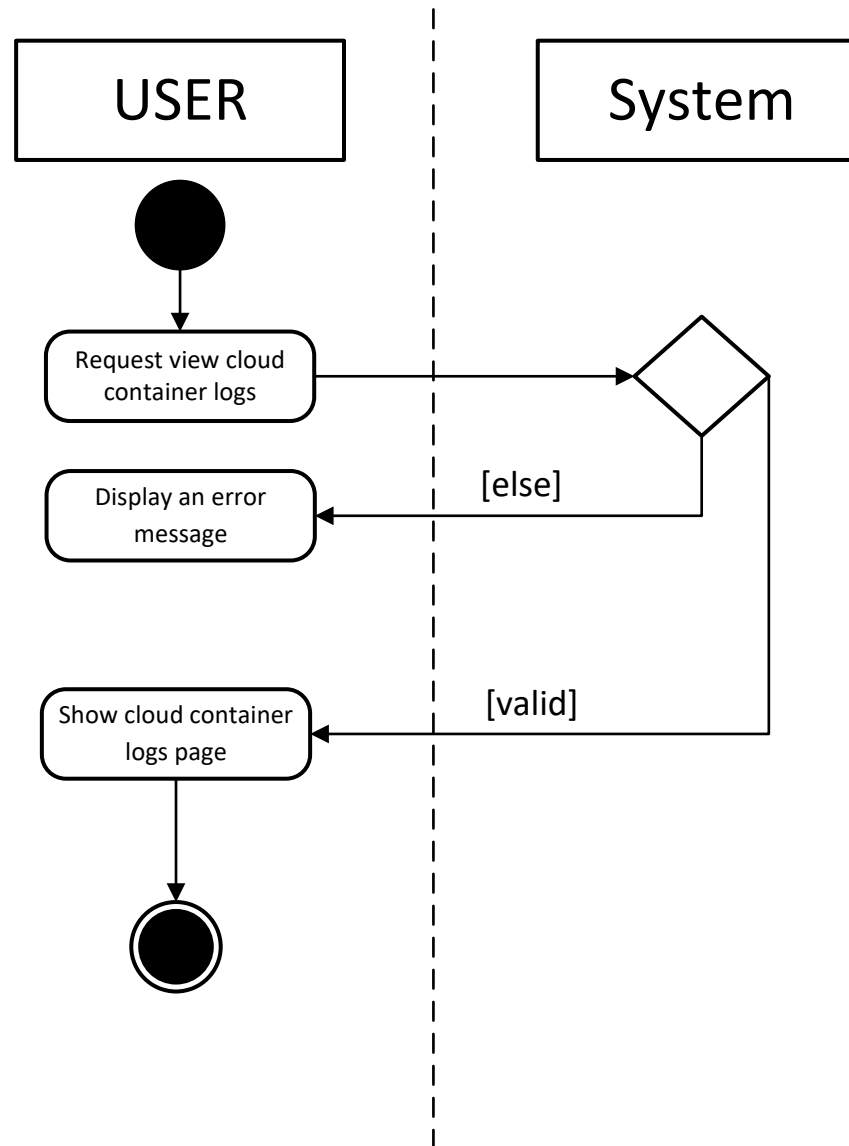
Activity Diagram: View the list of cloud containers



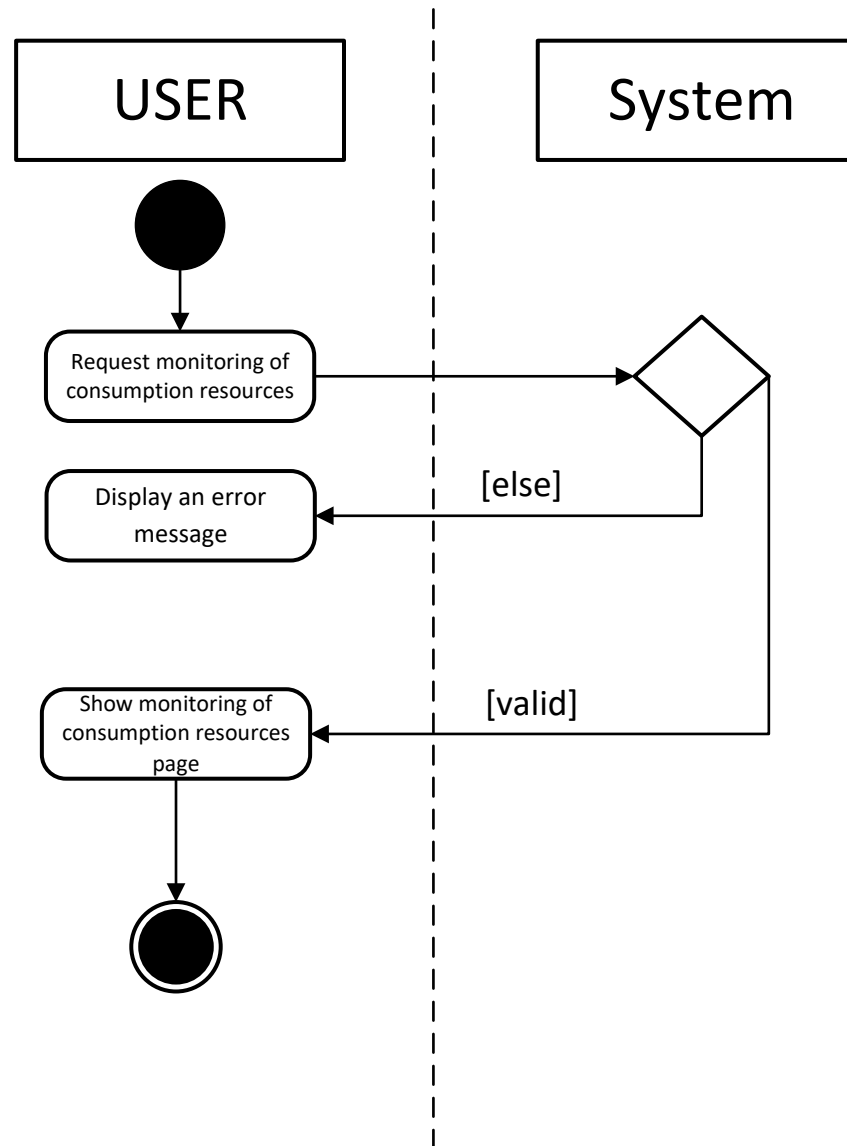
Activity Diagram: Assign the cloud server



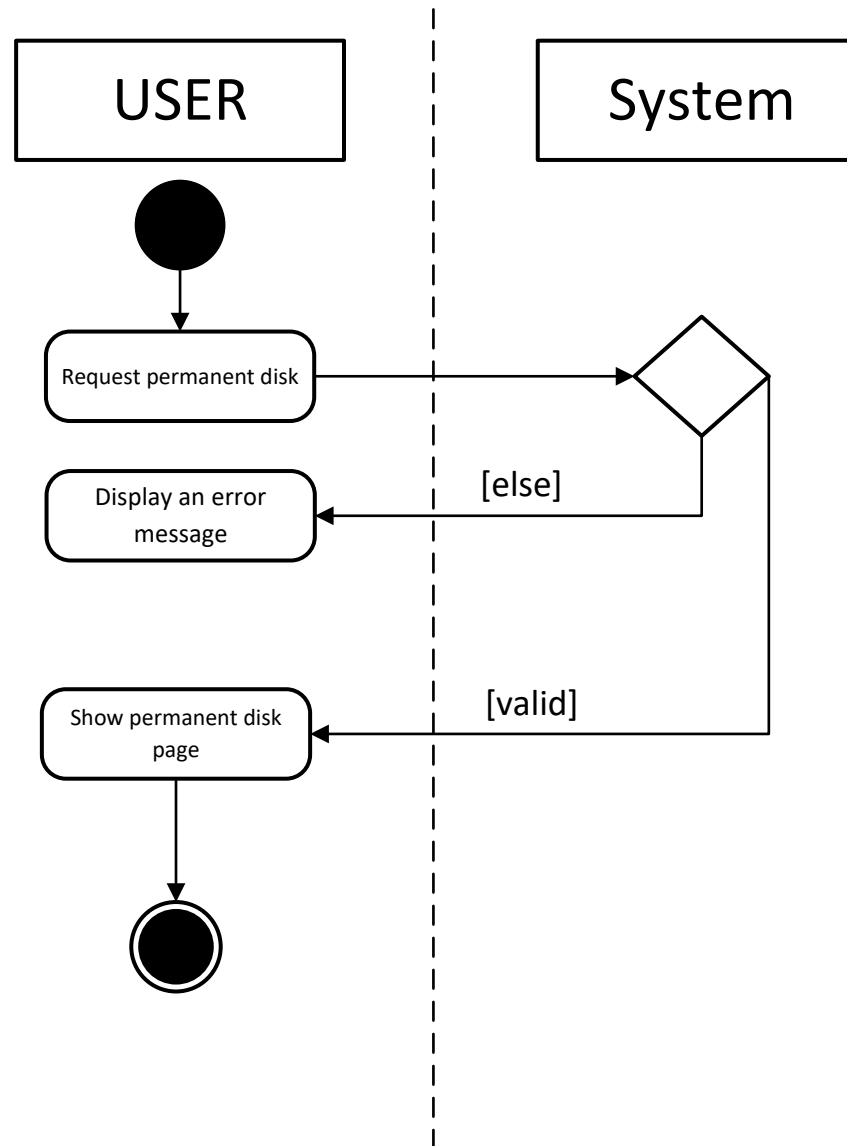
Activity Diagram: View cloud container logs



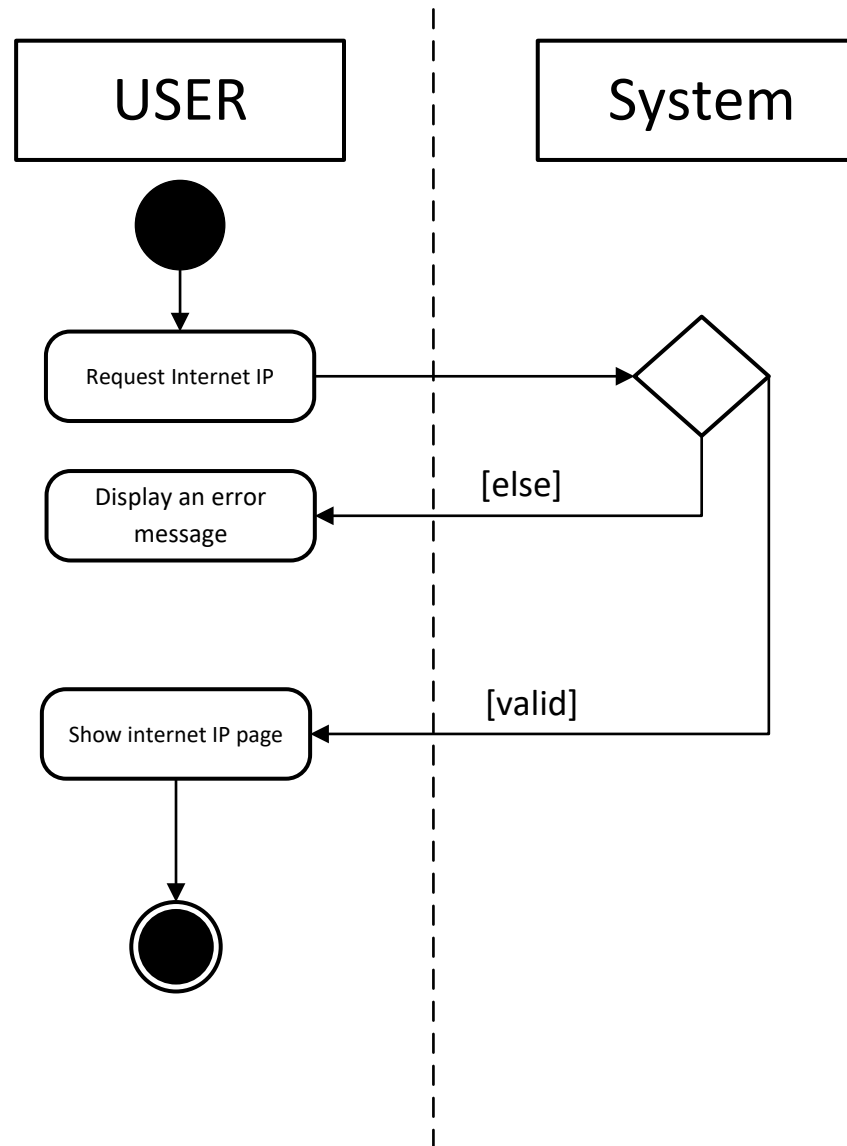
Activity Diagram: Monitoring of consumption resources



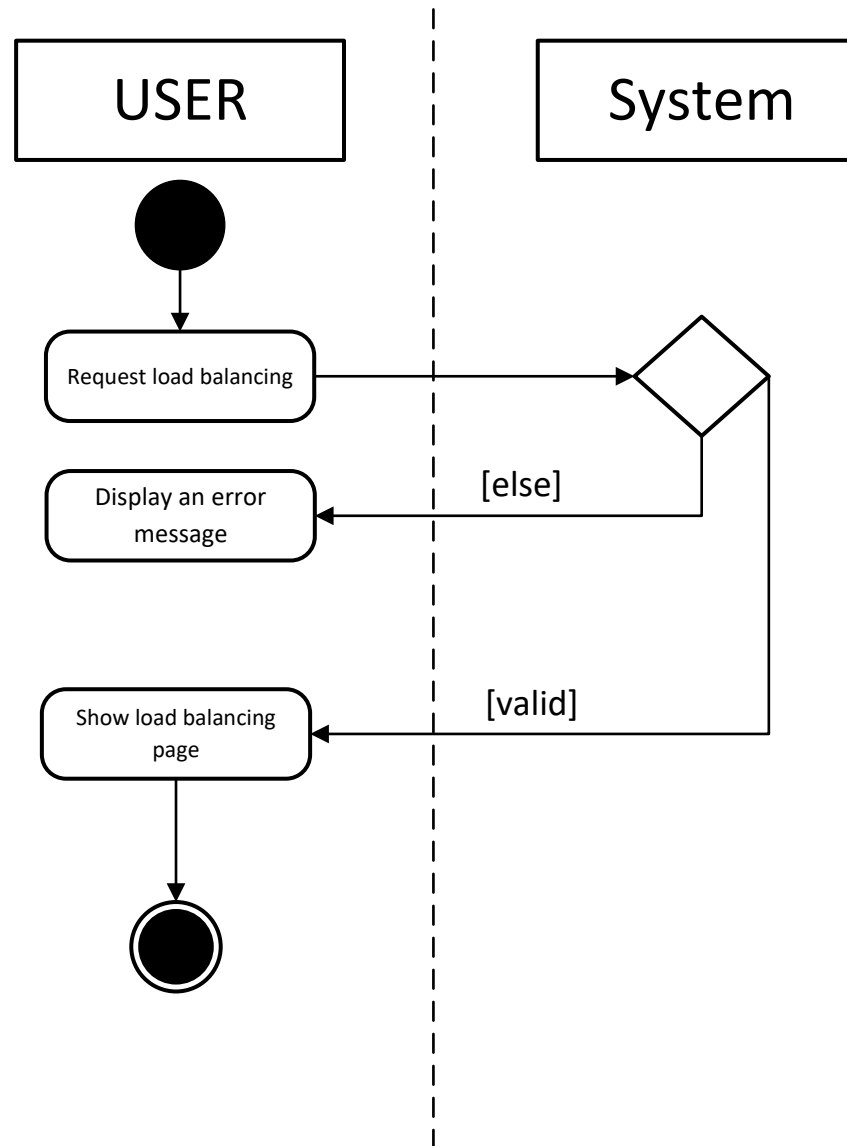
Activity Diagram: Request permanent disk



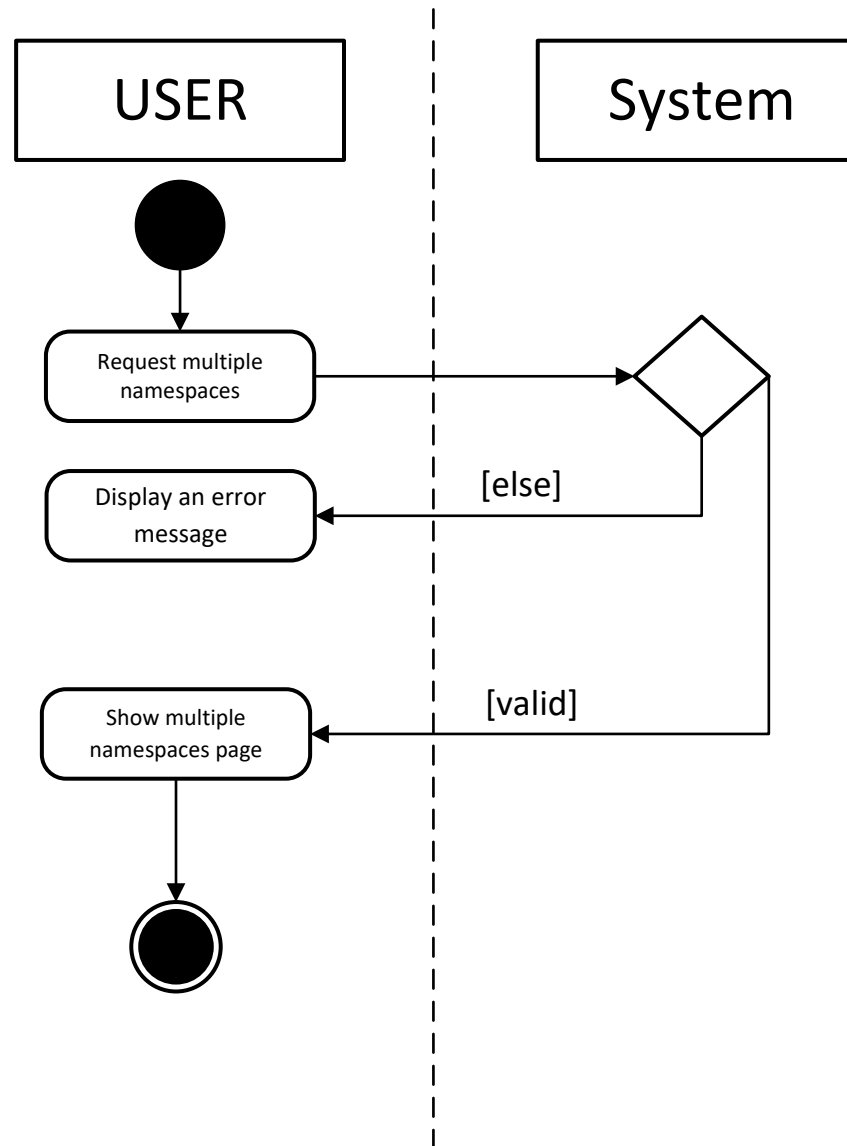
Activity Diagram: Request Internet IP



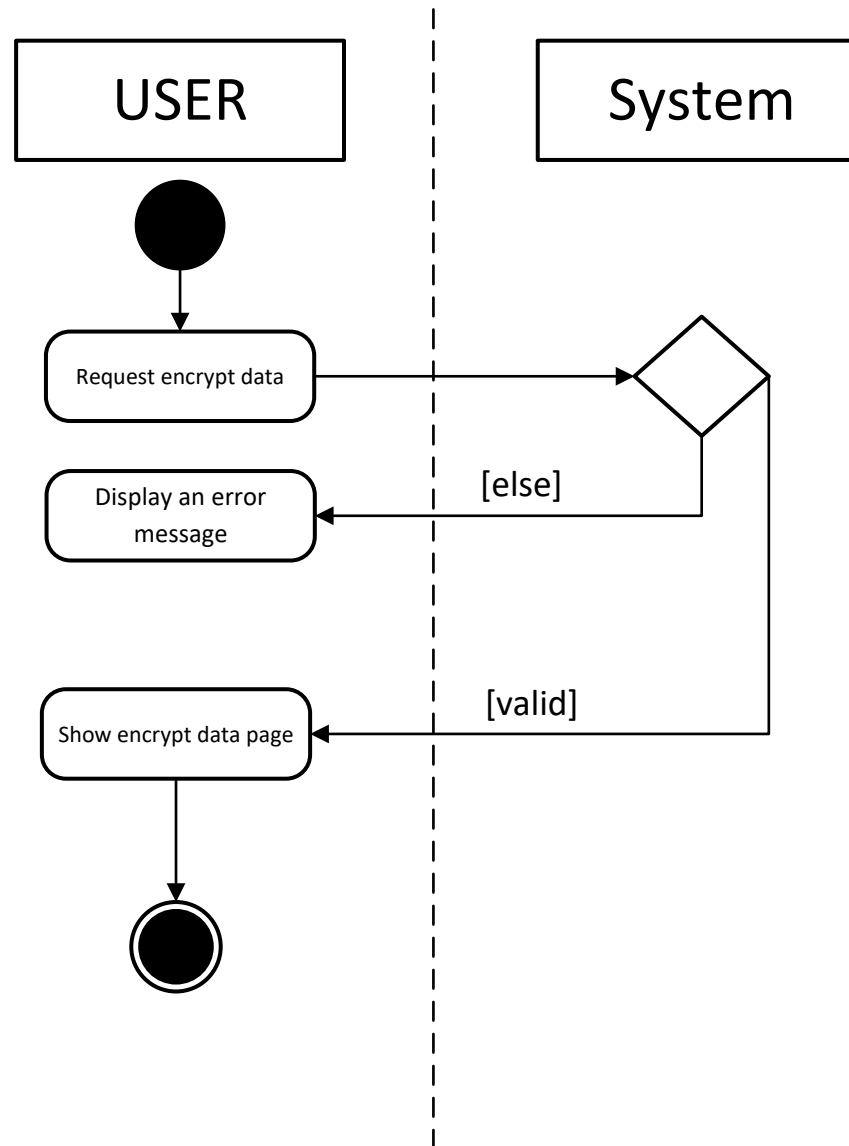
Activity Diagram: Request load balancing



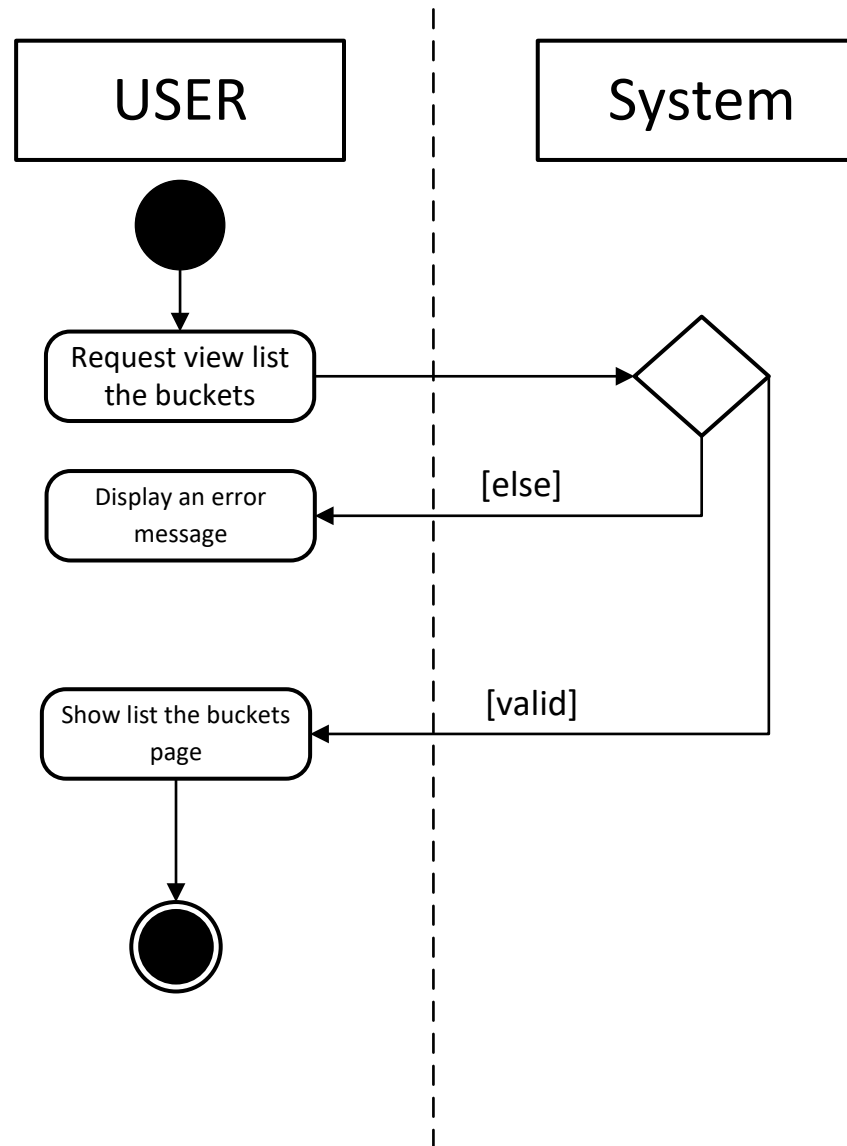
Activity Diagram: Request multiple namespaces



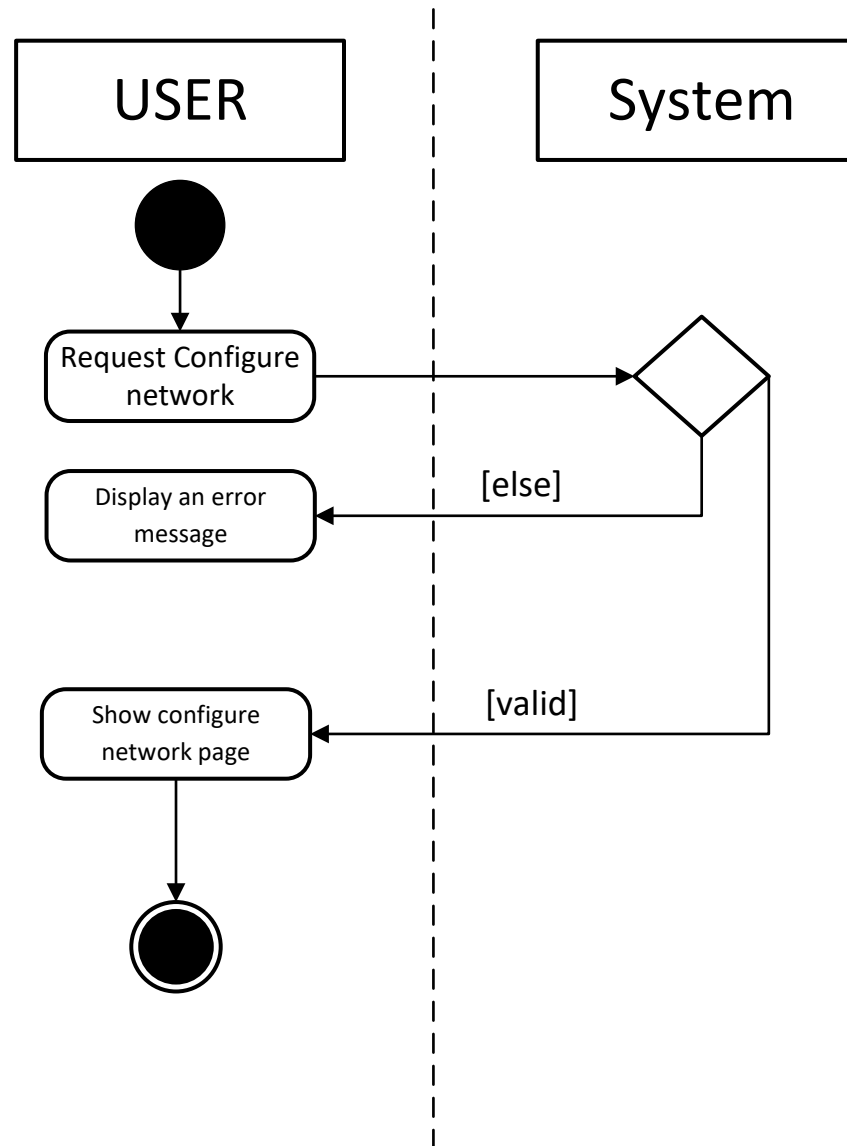
Activity Diagram: Request encrypt data



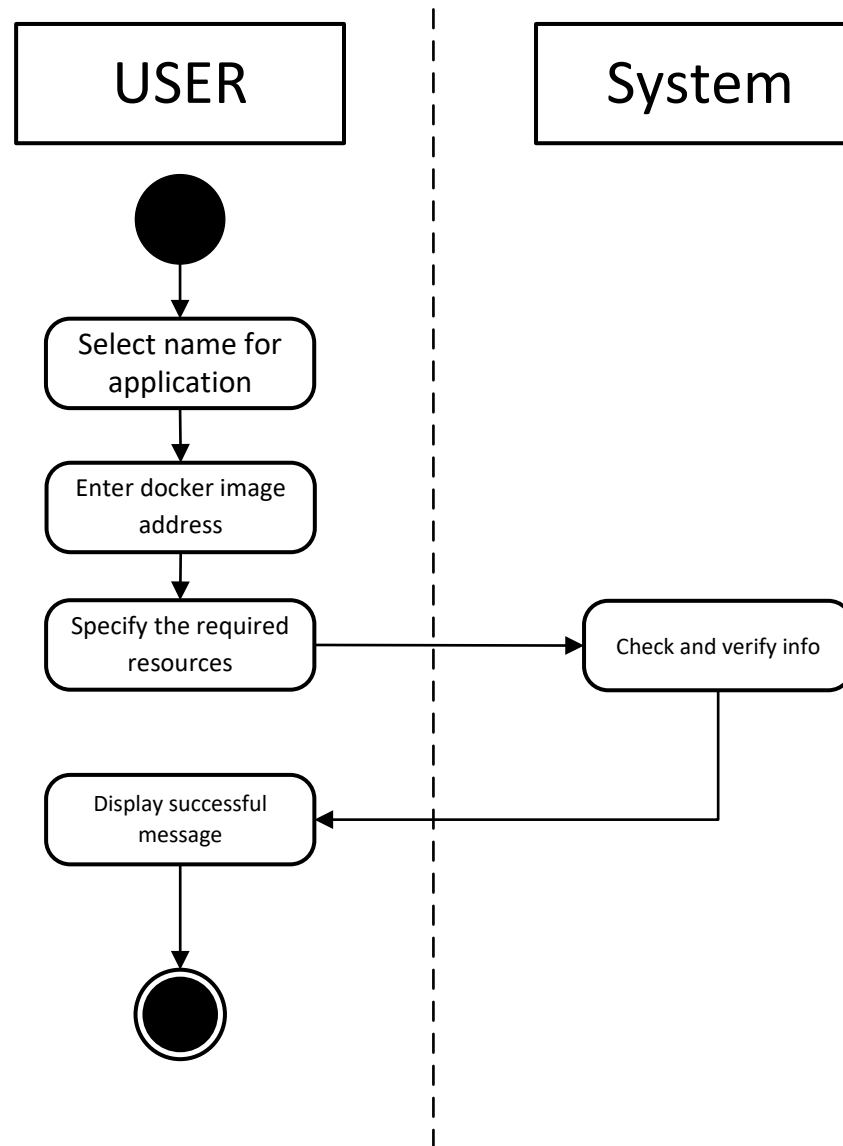
Activity Diagram: view list the buckets



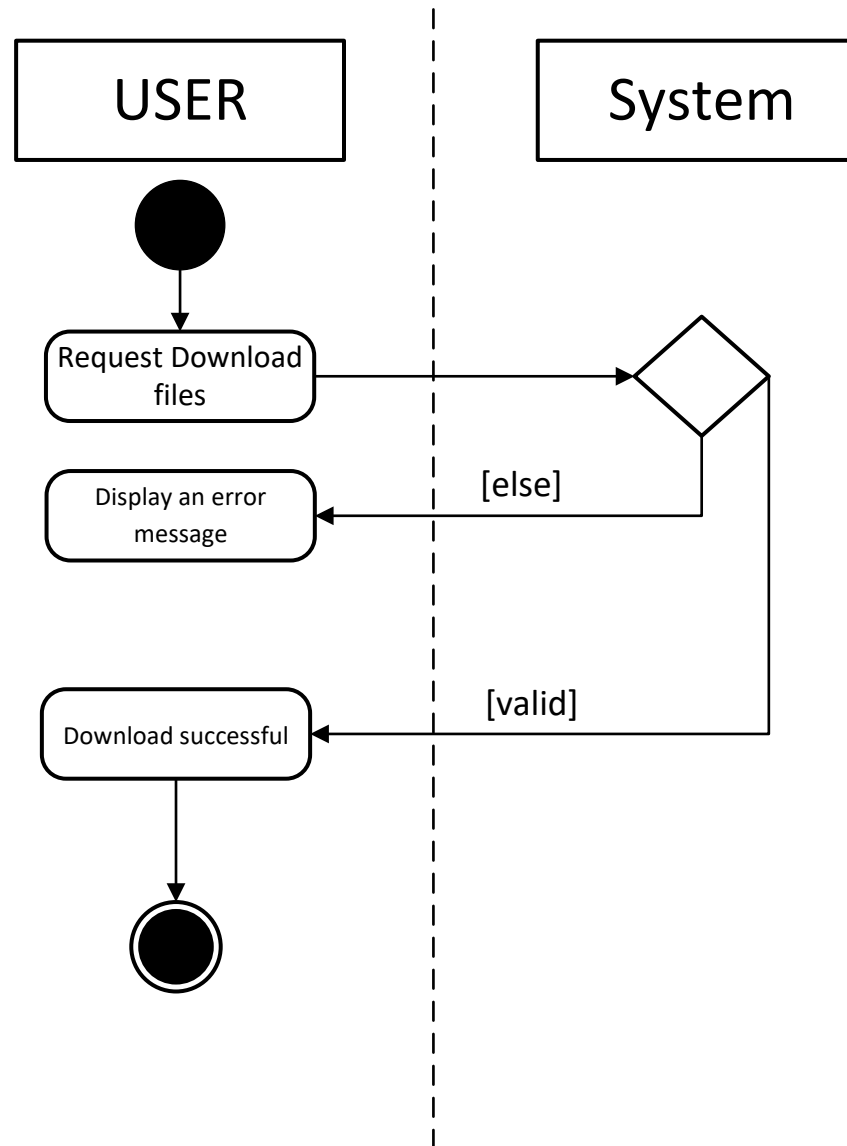
Activity Diagram: Configure network



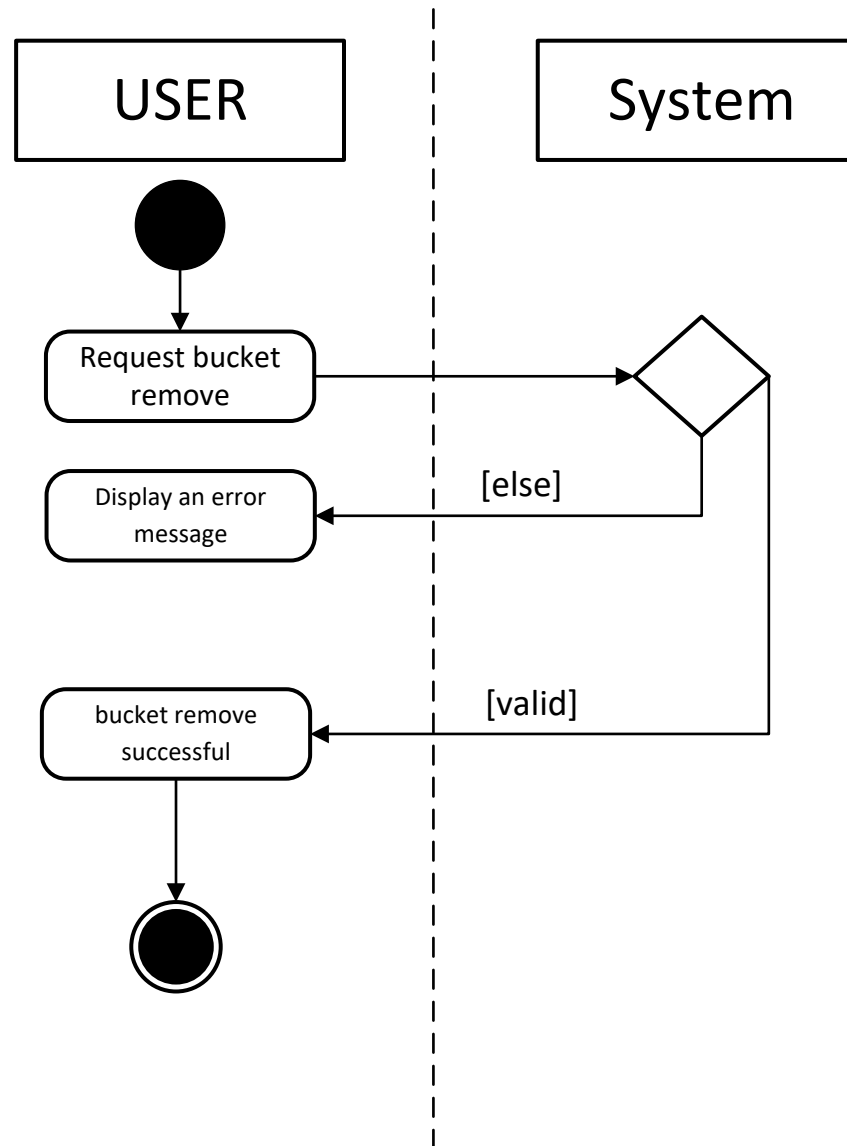
Activity Diagram: Assign the cloud container



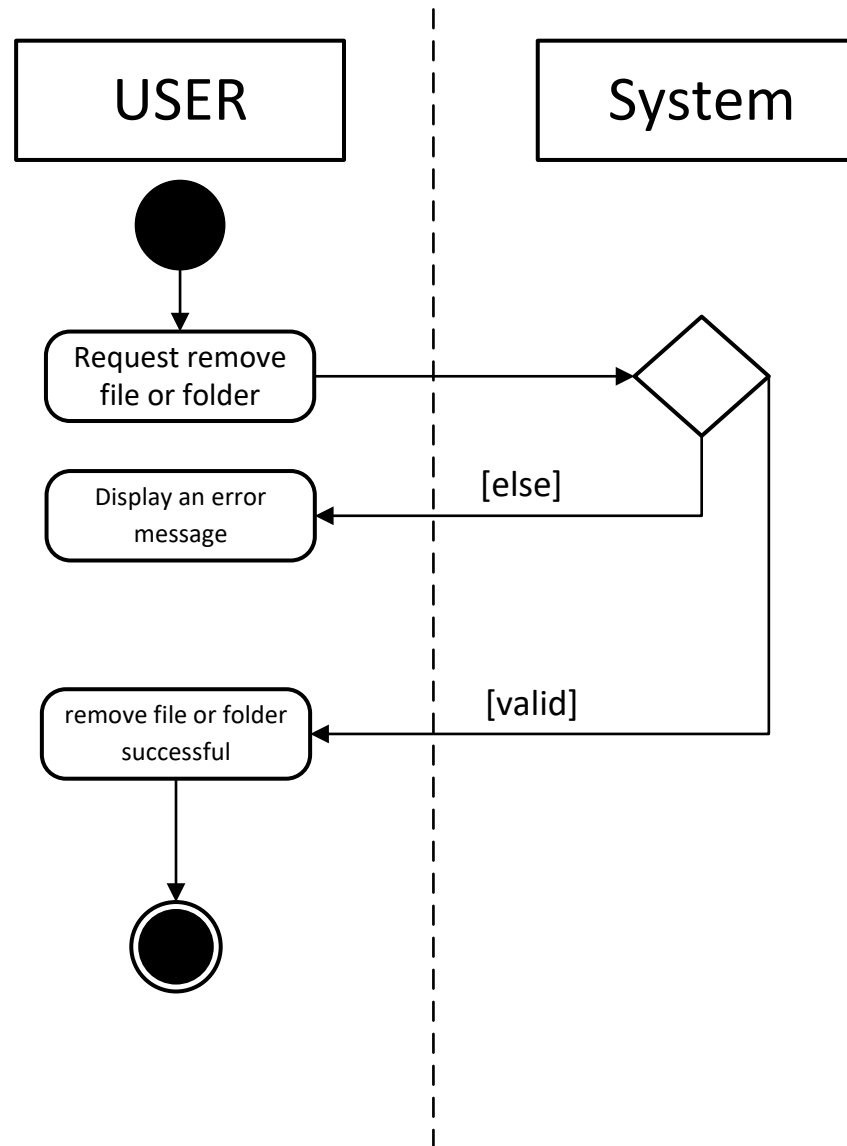
Activity Diagram: Download files



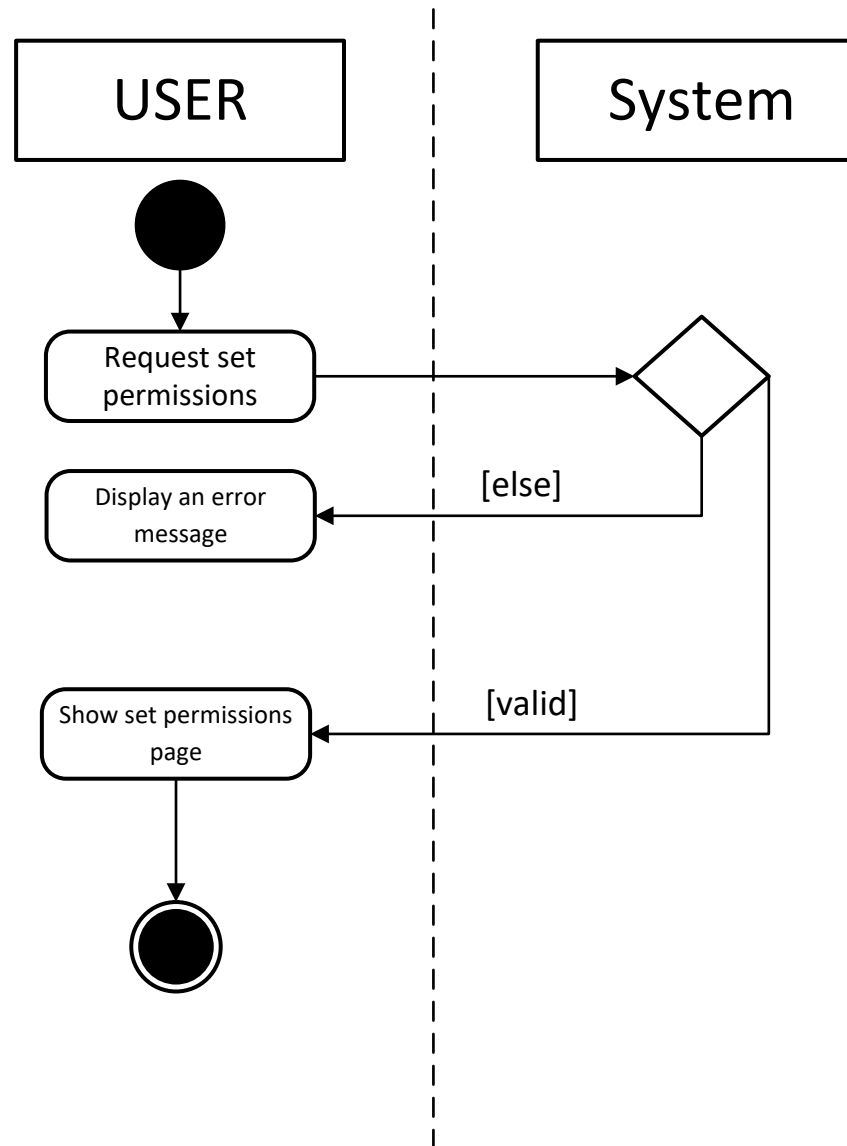
Activity Diagram: bucket remove



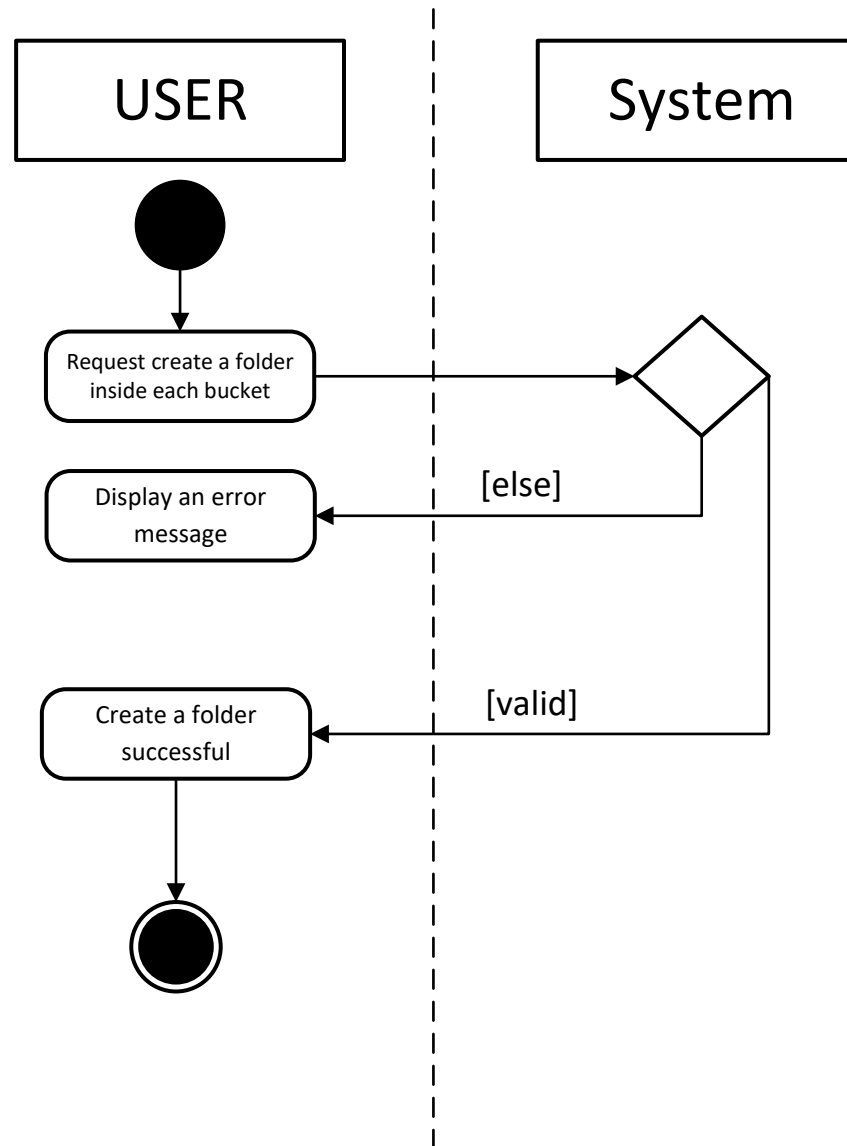
Activity Diagram: remove file or folder



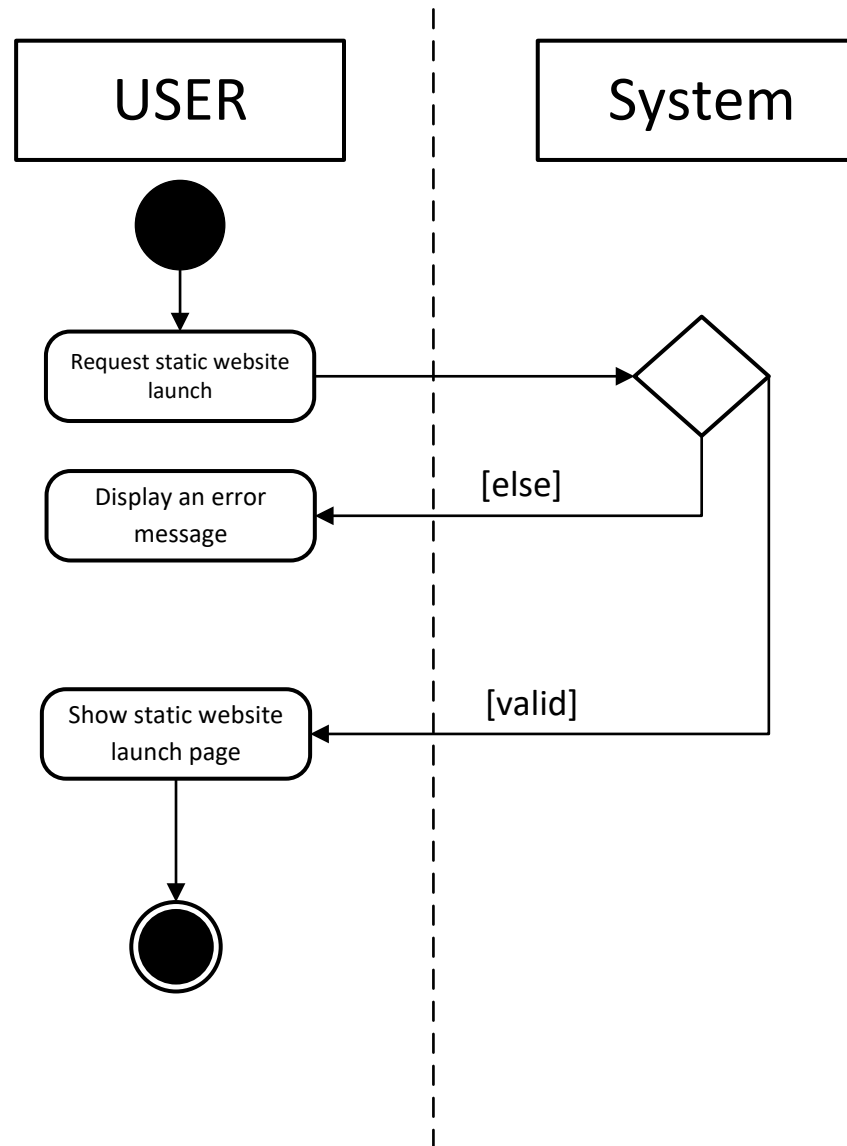
Activity Diagram: set permissions



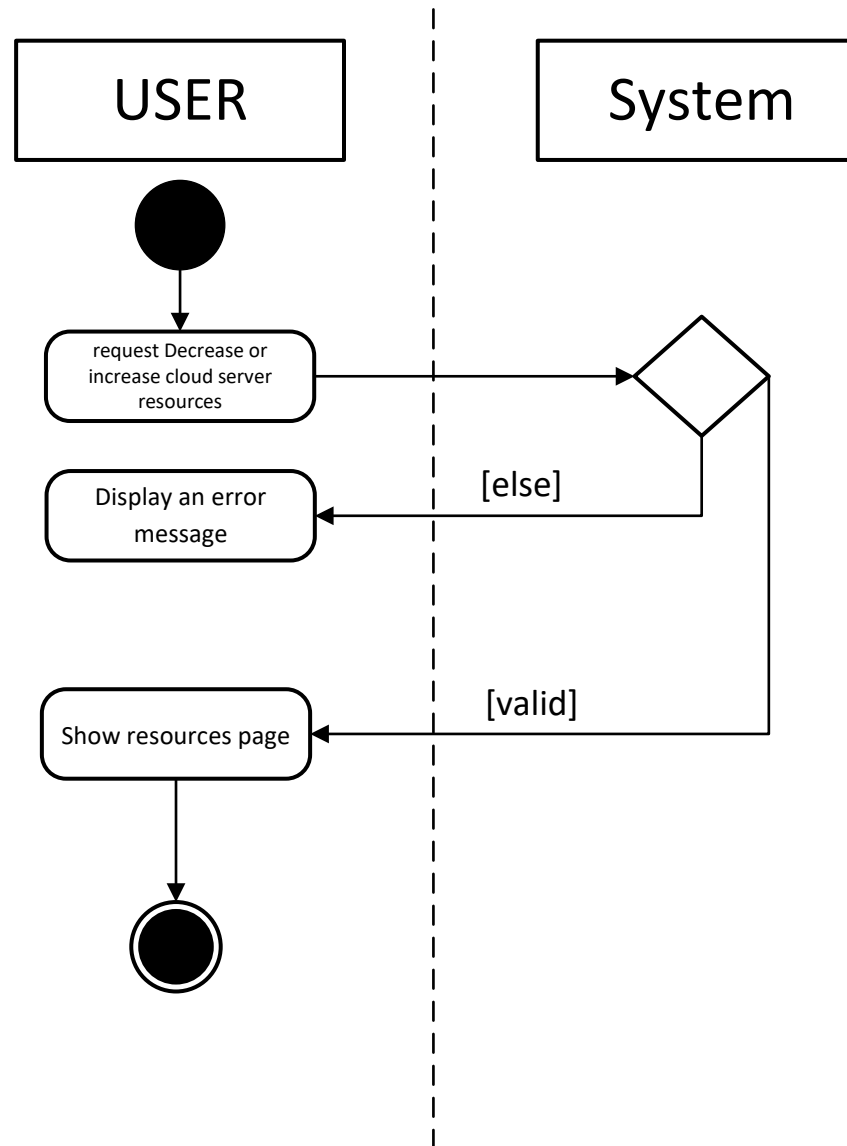
Activity Diagram: Create a folder inside each bucket



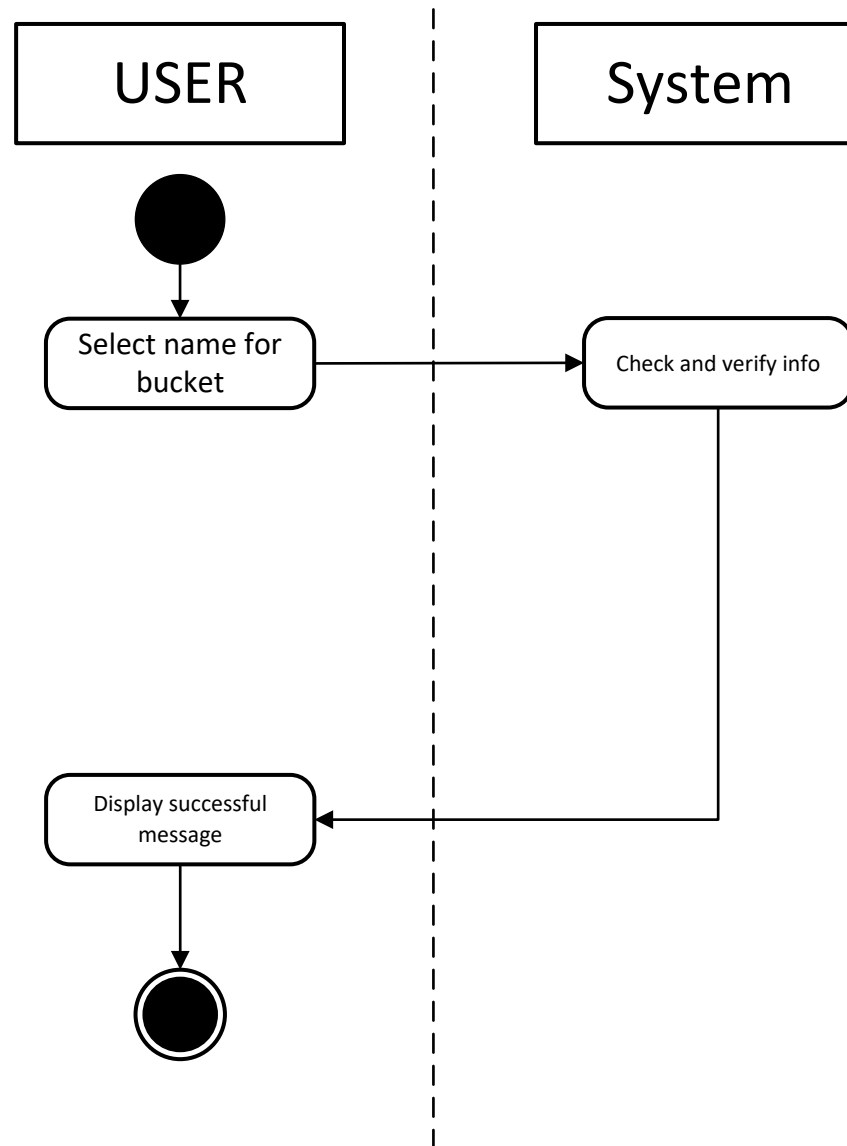
Activity Diagram: Static website launch



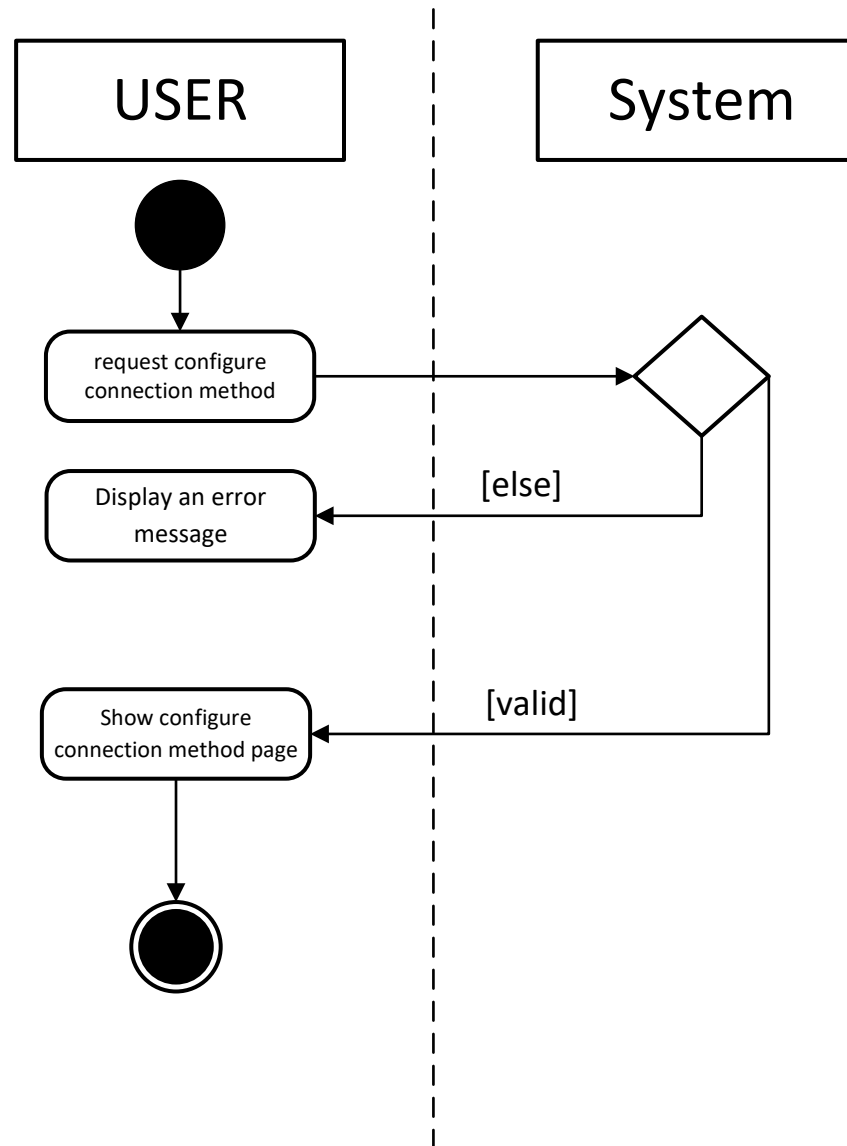
Activity Diagram: request Decrease or increase cloud server resources



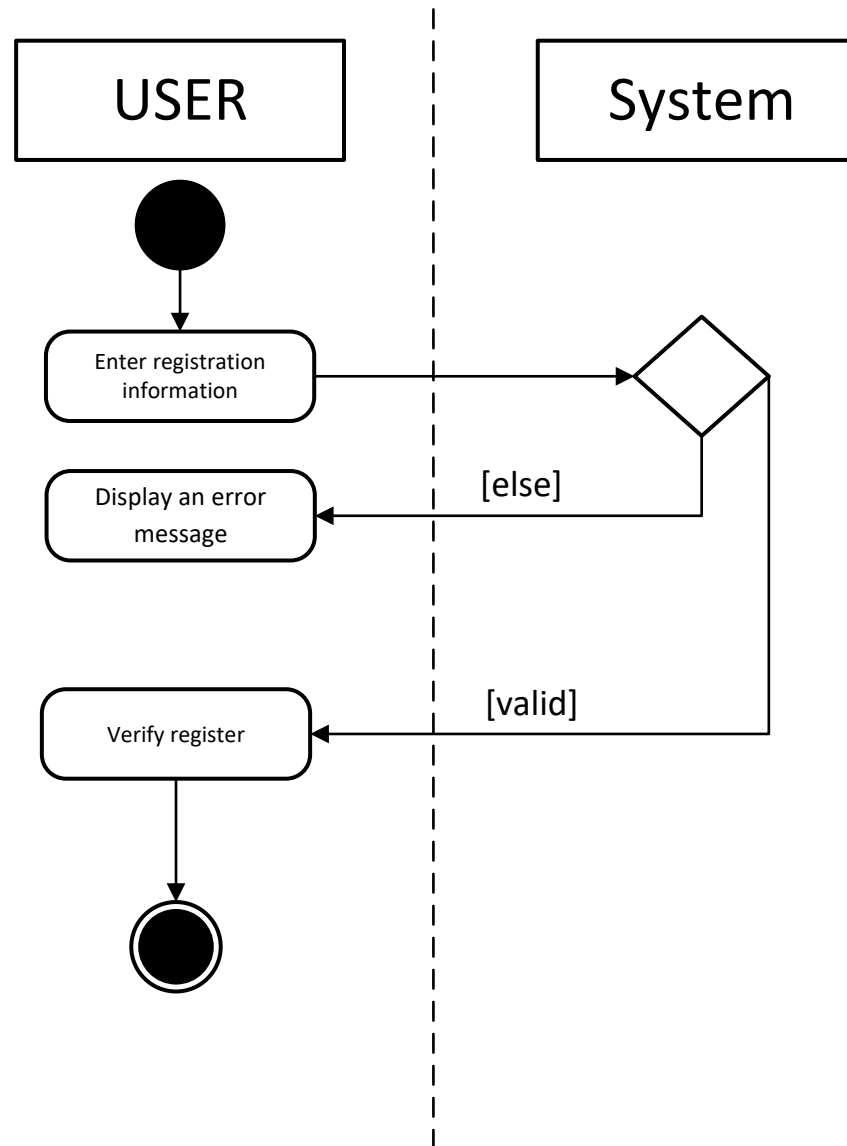
Activity Diagram: Allocate cloud space



Activity Diagram: configure connection method



Activity Diagram: Approve Registration



Activity Diagram: Send email access information

