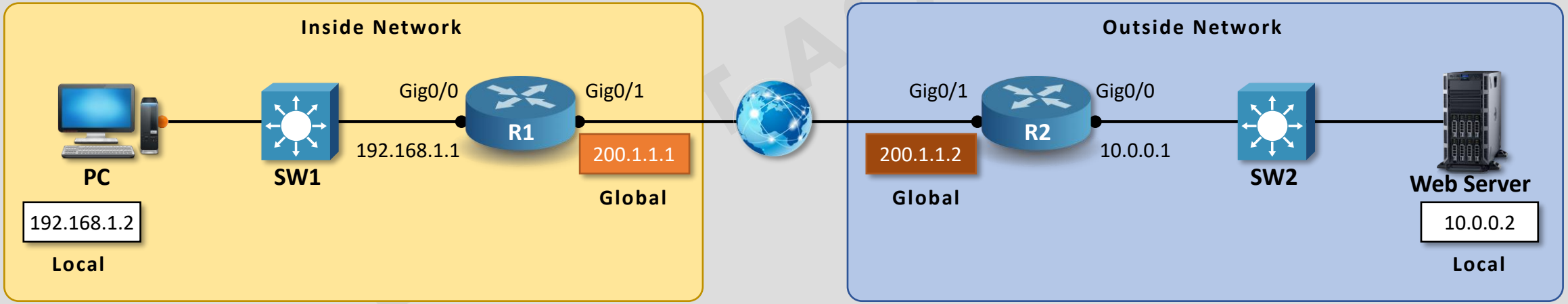
Network Address Translation (NAT)

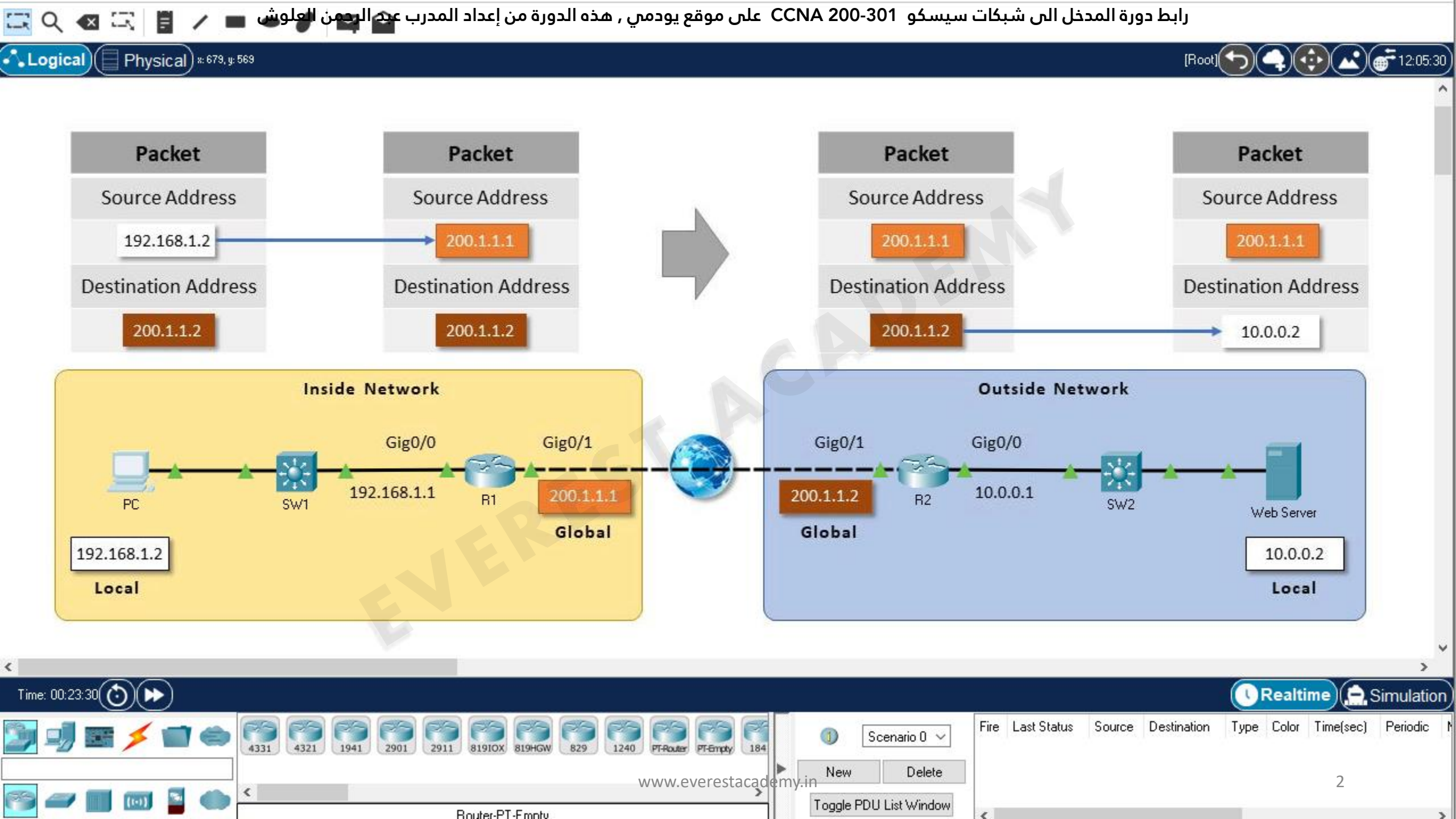
Packet	
Source Address	
192.168.1.2	
Destination Address	
200.1.1.2	

Packet	
Source Address	
200.1.1.1	
Destination Address	
200.1.1.2	

Packet	
Source Address	
200.1.1.1	
Destination Address	
200.1.1.2	

Packet	
Source Address	
200.1.1.1	
Destination Address	
10.0.0.2	

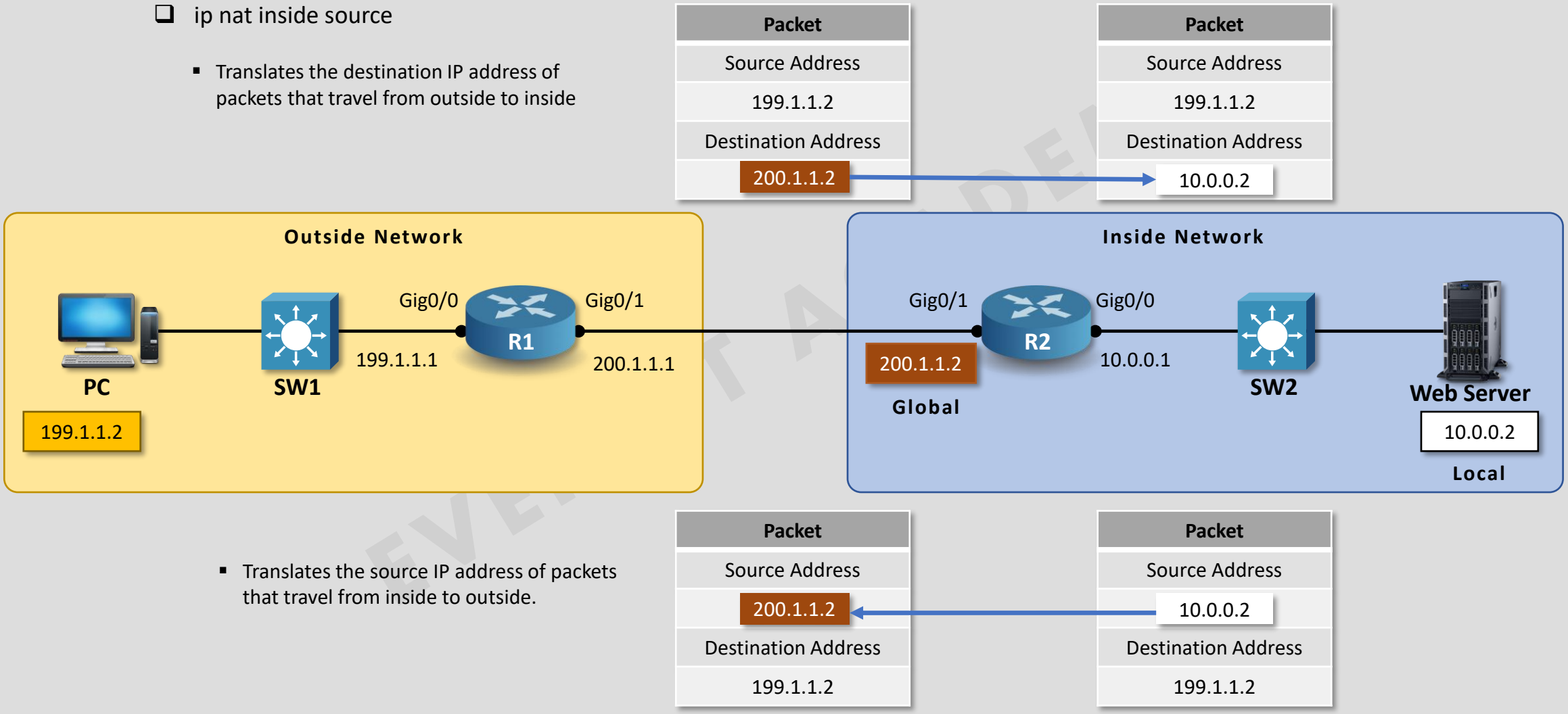




EVEREST ACADEMY

Static NAT

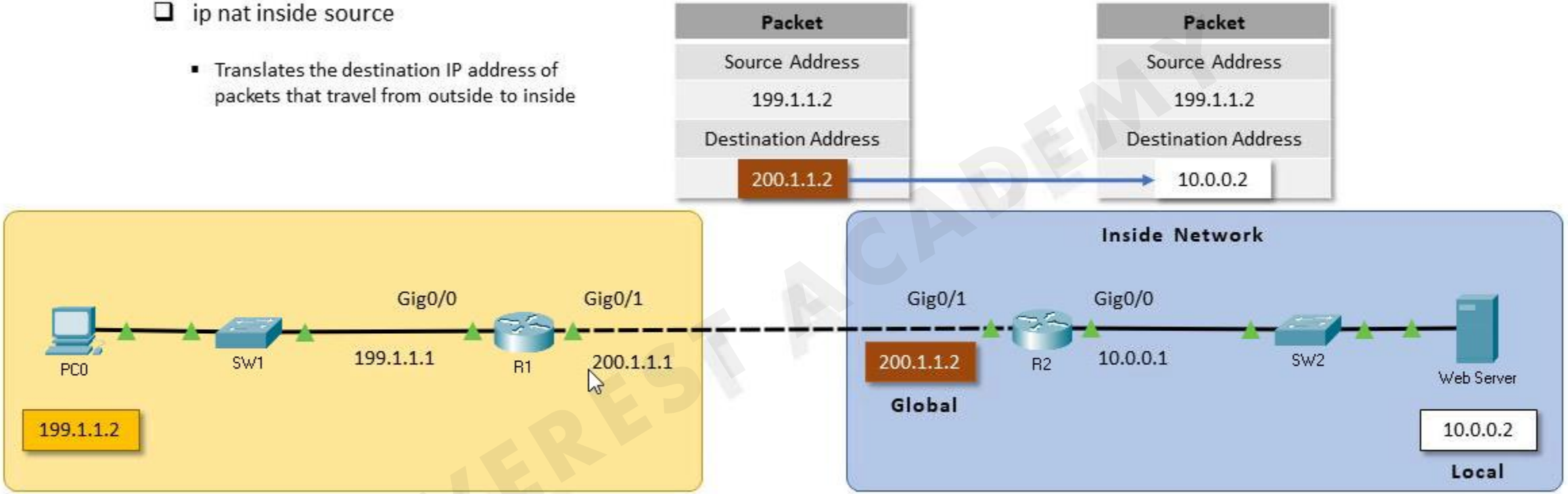
- ip nat inside source
  - Translates the destination IP address of packets that travel from outside to inside



- Translates the source IP address of packets that travel from inside to outside.

Logical | Physical | x: 481, y: 394 | [Root] | 08:17:30

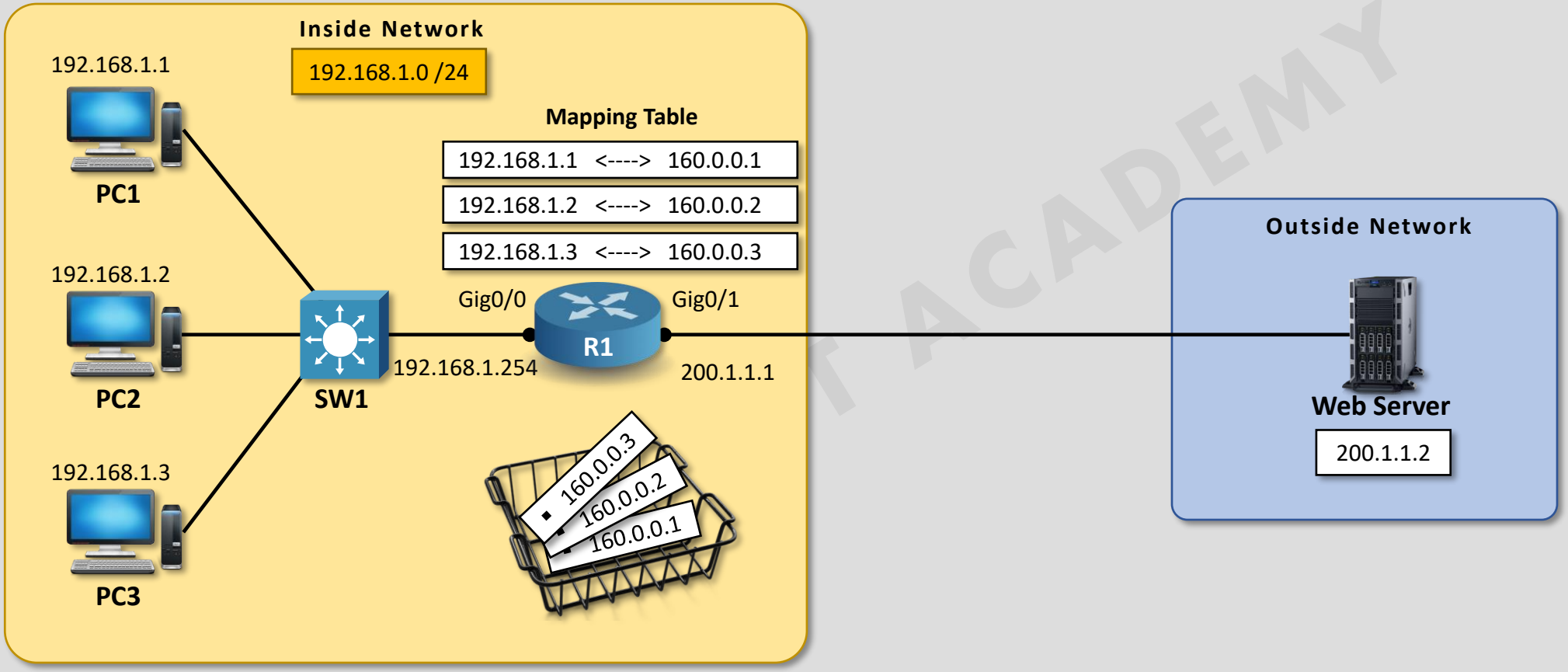
- ip nat inside source
  - Translates the destination IP address of packets that travel from outside to inside

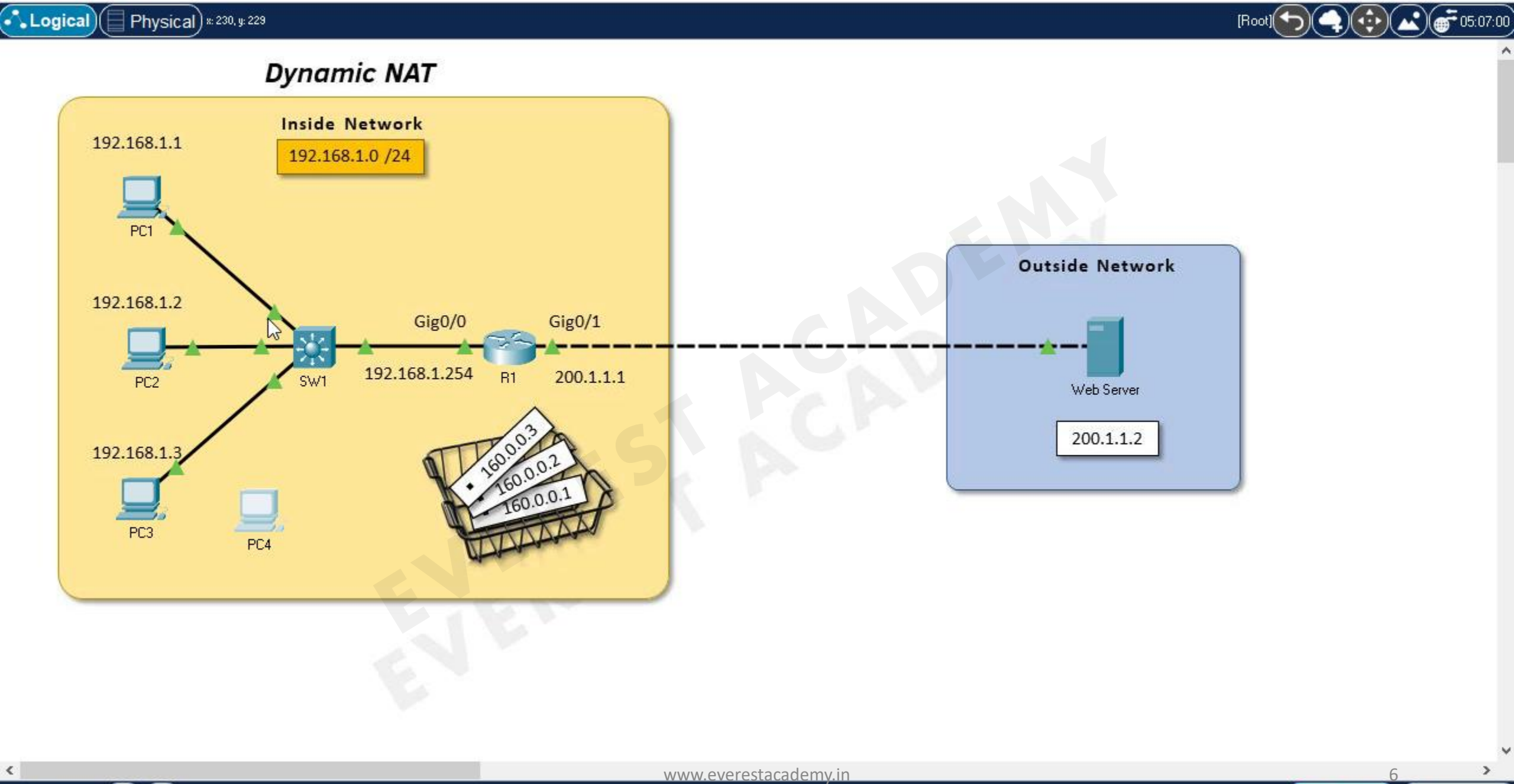


- Translates the source IP address of packets that travel from inside to outside.

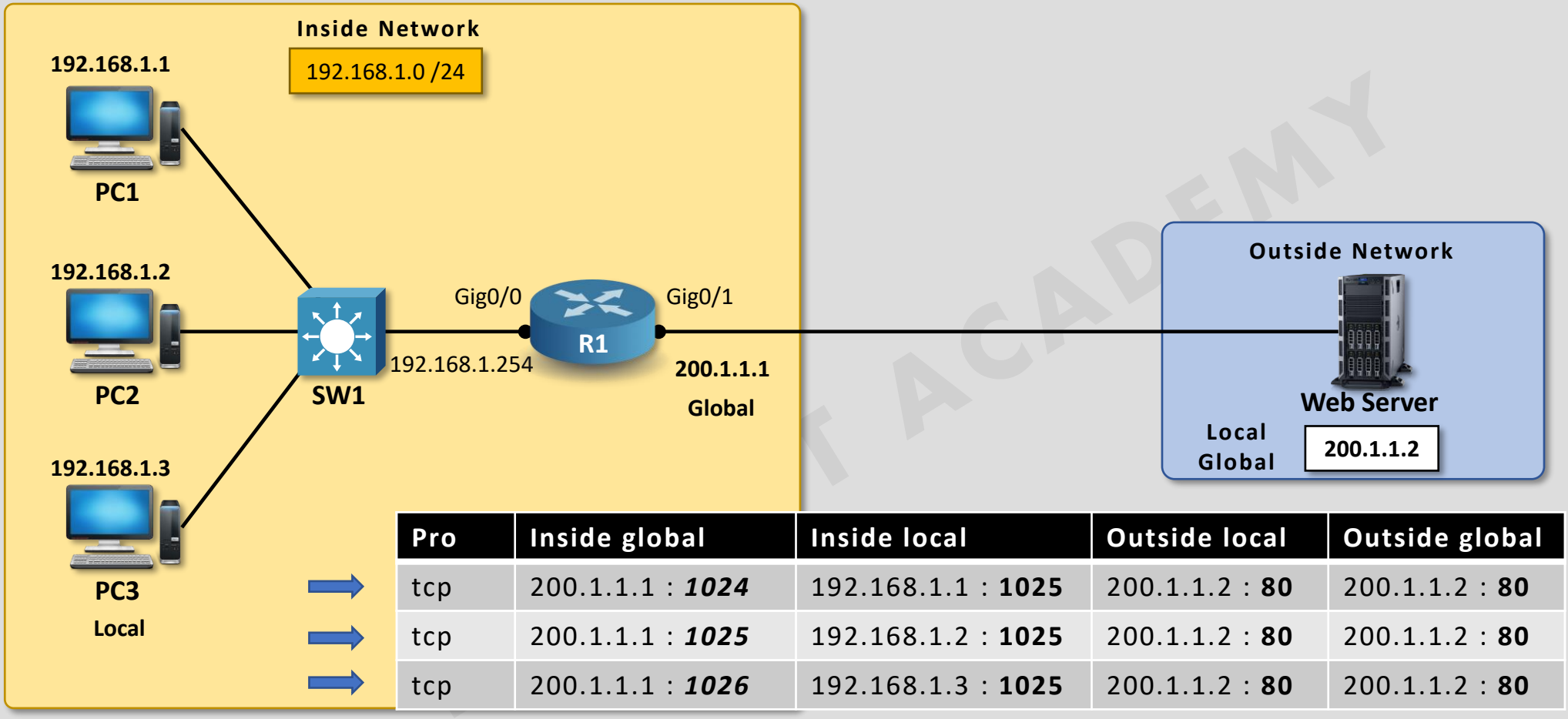
EVEREST ACADEMY

Dynamic NAT


Inside Network
192.168.1.0 /24
192.168.1.1
PC1
192.168.1.2
PC2
192.168.1.3
PC3
SW1
Mapping Table
192.168.1.1 <----> 160.0.0.1
192.168.1.2 <----> 160.0.0.2
192.168.1.3 <----> 160.0.0.3
Gig0/0
192.168.1.254
R1
Gig0/1
200.1.1.1
160.0.0.3
160.0.0.2
160.0.0.1
Outside Network
Web Server
200.1.1.2

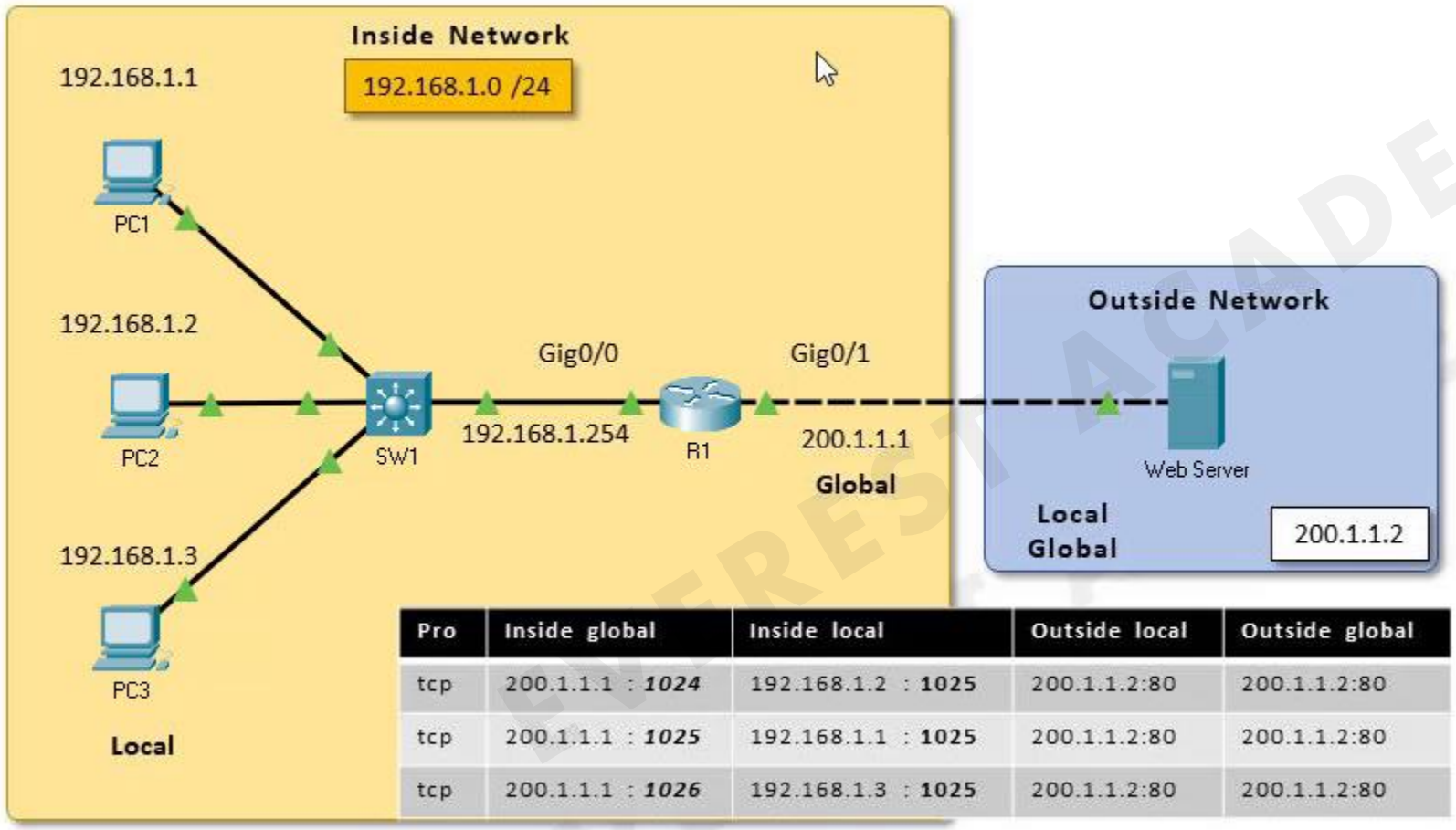

Logical
Physical
x: 230, y: 229
[Root]
05:07:00
Dynamic NAT
Inside Network
192.168.1.0 /24
192.168.1.1
PC1
192.168.1.2
PC2
192.168.1.3
PC3
PC4
SW1
Gig0/0
192.168.1.254
R1
Gig0/1
200.1.1.1
160.0.0.3
160.0.0.2
160.0.0.1
Outside Network
Web Server
200.1.1.2
Time: 00:10:24
Realtime
Simulation

Port Address Translation (PAT)



Pro	Inside global	Inside local	Outside local	Outside global
tcp	200.1.1.1 : ***1024***	192.168.1.1 : **1025**	200.1.1.2 : **80**	200.1.1.2 : **80**
tcp	200.1.1.1 : ***1025***	192.168.1.2 : **1025**	200.1.1.2 : **80**	200.1.1.2 : **80**
tcp	200.1.1.1 : ***1026***	192.168.1.3 : **1025**	200.1.1.2 : **80**	200.1.1.2 : **80**

Port Address Translation (PAT)



Pro	Inside global	Inside local	Outside local	Outside global
tcp	200.1.1.1 : ***1024***	192.168.1.2 : **1025**	200.1.1.2:80	200.1.1.2:80
tcp	200.1.1.1 : ***1025***	192.168.1.1 : **1025**	200.1.1.2:80	200.1.1.2:80
tcp	200.1.1.1 : ***1026***	192.168.1.3 : **1025**	200.1.1.2:80	200.1.1.2:80