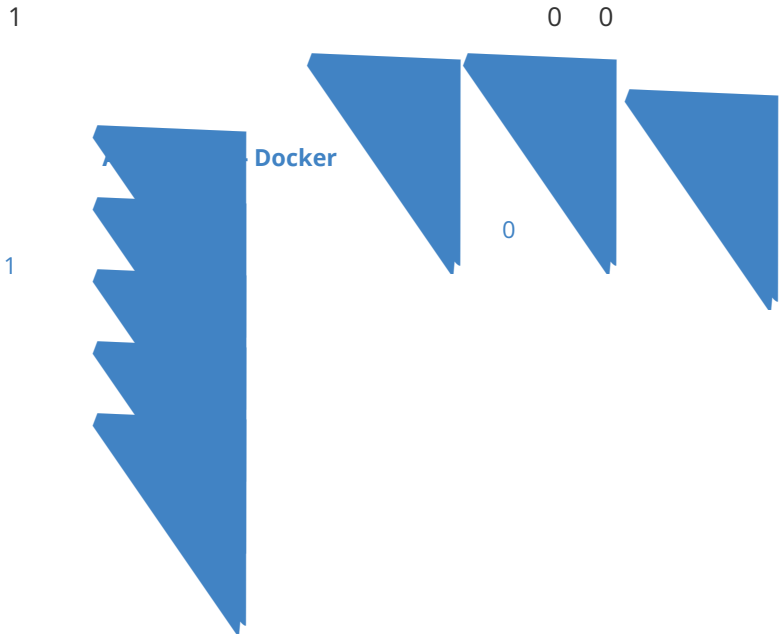
AIT - Lab 04 - Do er



roductio

Task 0: Identify issues and insta tools

.

' *docker-compos ml*
' (
. .)
.

'
,

, *docker-compose.yml*
. *webapp* -

```
version: "3.5"

services :
webapp3:
 container_name: s3
 build:
   context: .
   dockerfile: Dockerfile
 networks:
   heig:
     ipv4_address: 192.168.42.33
 ports:
         - "4003:3000"
       environment:
            - TAG=s3
            - SERVER_IP=192.168.42.33
```

. ( ) 00

`dock compose up d build` - --
.

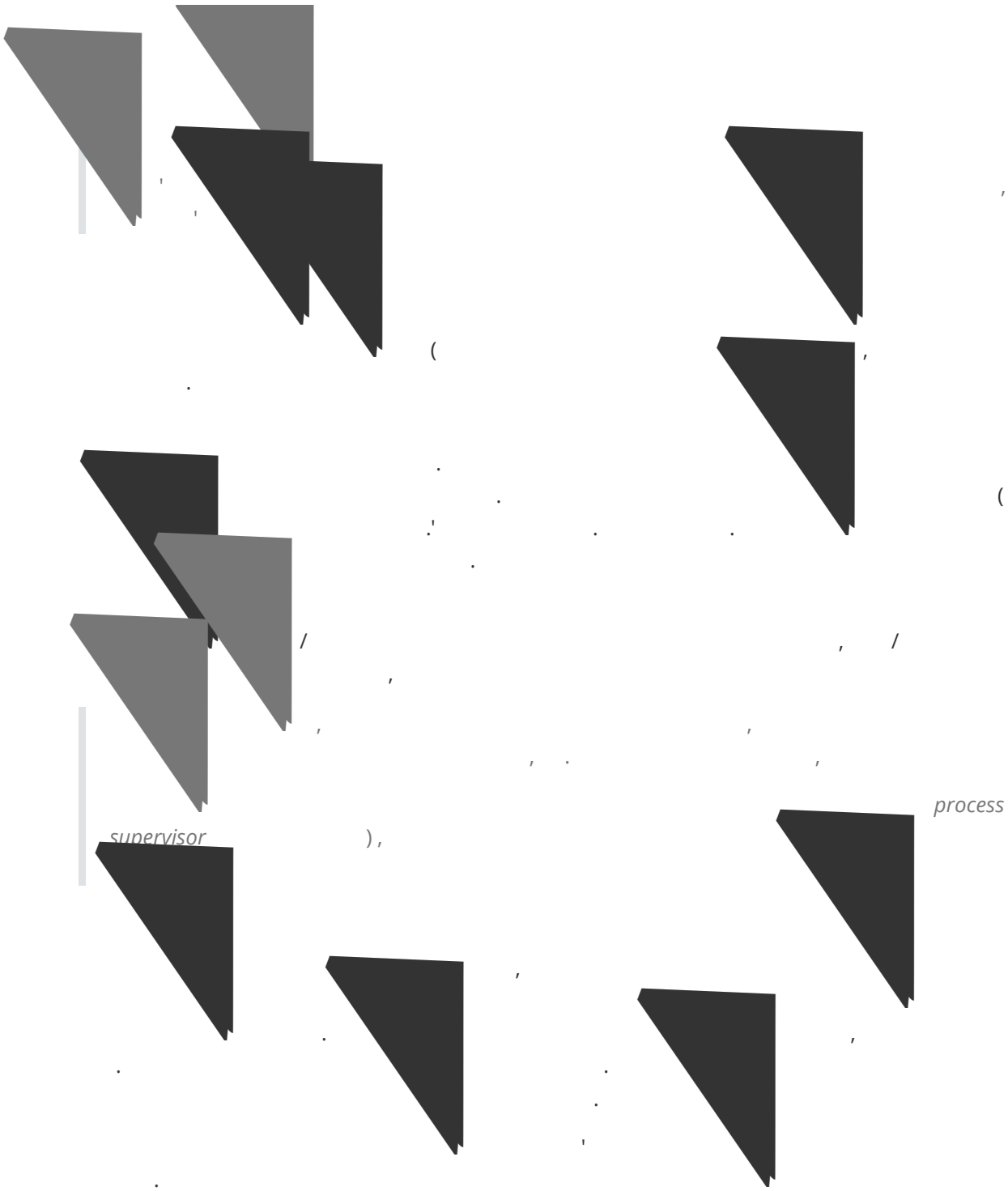
`/usr/local/etc/haproxy/haproxy.cfg`

```
    # HANDLEBARS START
    # TODO: [CFG] Remove all the servers
    server s1 ${WEBAPP_1_IP}:3000 check
    server s2 ${WEBAPP_2_IP}:3000 check
    server s3 192.168.42.33:3000 check
    # HANDLEBARS STOP
```

,

, .
.

'
,
/ .



HAProxy

Statistics Report for pid 10

> General process information

pid = 10 (process #1, nbproc = 1, nbthread = 4)
uptime = 0d 0h05m17s
system limits: memmax = unlimited; ulimit-n = 1048576
maxsock = 1048576; maxconn = 524269; maxpipes = 0
current conns = 3; current pipes = 0/0; conn rate = 1/sec; bit rate = 0.271 kbps
Running tasks: 1/21; idle = 100 %

active UP
active UP, going down
active DOWN, going up
active or backup DOWN
active or backup DOWN for maintenance (MAINT)
active or backup SOFT STOPPED for maintenance
backup UP
backup UP, going down
backup DOWN, going up
not checked
Note: "NOLB"/"DRAIN" = UP with load-balancing disabled.

Display option:
- Scope :
- Hide 'DOWN' servers
- Refresh now
- CSV export
- JSON export (schema)

External resources:
- Primary site
- Updates (v2.2)
- Online manual

stats

	Queue			Session rate			Sessions						Bytes		Denied		Errors			Warnings		Server								
	Cur	Max	Limit	Cur	Max	Limit	Cur	Max	Limit	Total	LbTot	Last	In	Out	Req	Resp	Req	Conn	Resp	Retr	Redis	Status	LastChk	Wght	Act	Bck	Chk	Dwn	Dwntme	Thrtle
Frontend				1	1	-	1	1	524 269	1			0	0	0	0	0					OPEN								
Backend	0	0		0	0		0	0	52 427	0	0	0s	0	0	0	0		0	0	0	0	5m17s UP		0	0	0		0		

localnodes

	Queue			Session rate			Sessions						Bytes		Denied		Errors			Warnings		Server								
	Cur	Max	Limit	Cur	Max	Limit	Cur	Max	Limit	Total	LbTot	Last	In	Out	Req	Resp	Req	Conn	Resp	Retr	Redis	Status	LastChk	Wght	Act	Bck	Chk	Dwn	Dwntme	Thrtle
Frontend				0	2	-	2	2	524 269	2			898	1 317	0	0	0					OPEN								

nodes

	Queue			Session rate			Sessions						Bytes		Denied		Errors			Warnings		Server								
	Cur	Max	Limit	Cur	Max	Limit	Cur	Max	Limit	Total	LbTot	Last	In	Out	Req	Resp	Req	Conn	Resp	Retr	Redis	Status	LastChk	Wght	Act	Bck	Chk	Dwn	Dwntme	Thrtle
s1	0	0	-	0	1		0	1	-	1	1	20s	453	813		0			0	0	0	5m13s UP	L7OK/200 in 1ms	1	Y	-	1	1	4s	-
s2	0	0	-	0	1		0	1	-	1	1	20s	445	504		0			0	0	0	5m17s UP	L7OK/200 in 2ms	1	Y	-	0	0	0s	-
Backend	0	0		0	2		0	1	52 427	2	2	20s	898	1 317	0	0			0	0	0	5m17s UP		2	2	0		0	0s	

HAProxy stats

. __ __ // / / - - - -0 0-

Task 1: Add a process supervisor to run several processes

HAProxy

Statistics Report for pid 197

> General process information

pid = 197 (process #1, nbproc = 1, nbthread = 4)
uptime = 0d 0h00m20s
system limits: memmax = unlimited; ulimit-n = 1048576
maxsock = 1048576; maxconn = 524269; maxpipes = 0
current conns = 3; current pipes = 0/0; conn rate = 1/sec; bit rate = 0.271 kbps
Running tasks: 1/21; idle = 100 %

active UP
active UP, going down
active DOWN, going up
active or backup DOWN
active or backup DOWN for maintenance (MAINT)
active or backup SOFT STOPPED for maintenance
backup UP
backup UP, going down
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not checked
Note: "NOLB"/"DRAIN" = UP with load-balancing disabled.

Display option:
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- CSV export
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External resources:
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stats

	Queue			Session rate			Sessions						Bytes		Denied		Errors			Warnings		Server								
	Cur	Max	Limit	Cur	Max	Limit	Cur	Max	Limit	Total	LbTot	Last	In	Out	Req	Resp	Req	Conn	Resp	Retr	Redis	Status	LastChk	Wght	Act	Bck	Chk	Dwn	Dwntme	Thrtle
Frontend				1	1	-	1	1	524 269	1			0	0	0	0	0					OPEN								
Backend	0	0		0	0		0	0	52 427	0	0	0s	0	0	0	0		0	0	0	0	20s UP		0	0	0		0		

localnodes

	Queue			Session rate			Sessions						Bytes		Denied		Errors			Warnings		Server								
	Cur	Max	Limit	Cur	Max	Limit	Cur	Max	Limit	Total	LbTot	Last	In	Out	Req	Resp	Req	Conn	Resp	Retr	Redis	Status	LastChk	Wght	Act	Bck	Chk	Dwn	Dwntme	Thrtle
Frontend				0	2	-	2	2	524 269	2			589	506	0	0	0					OPEN								

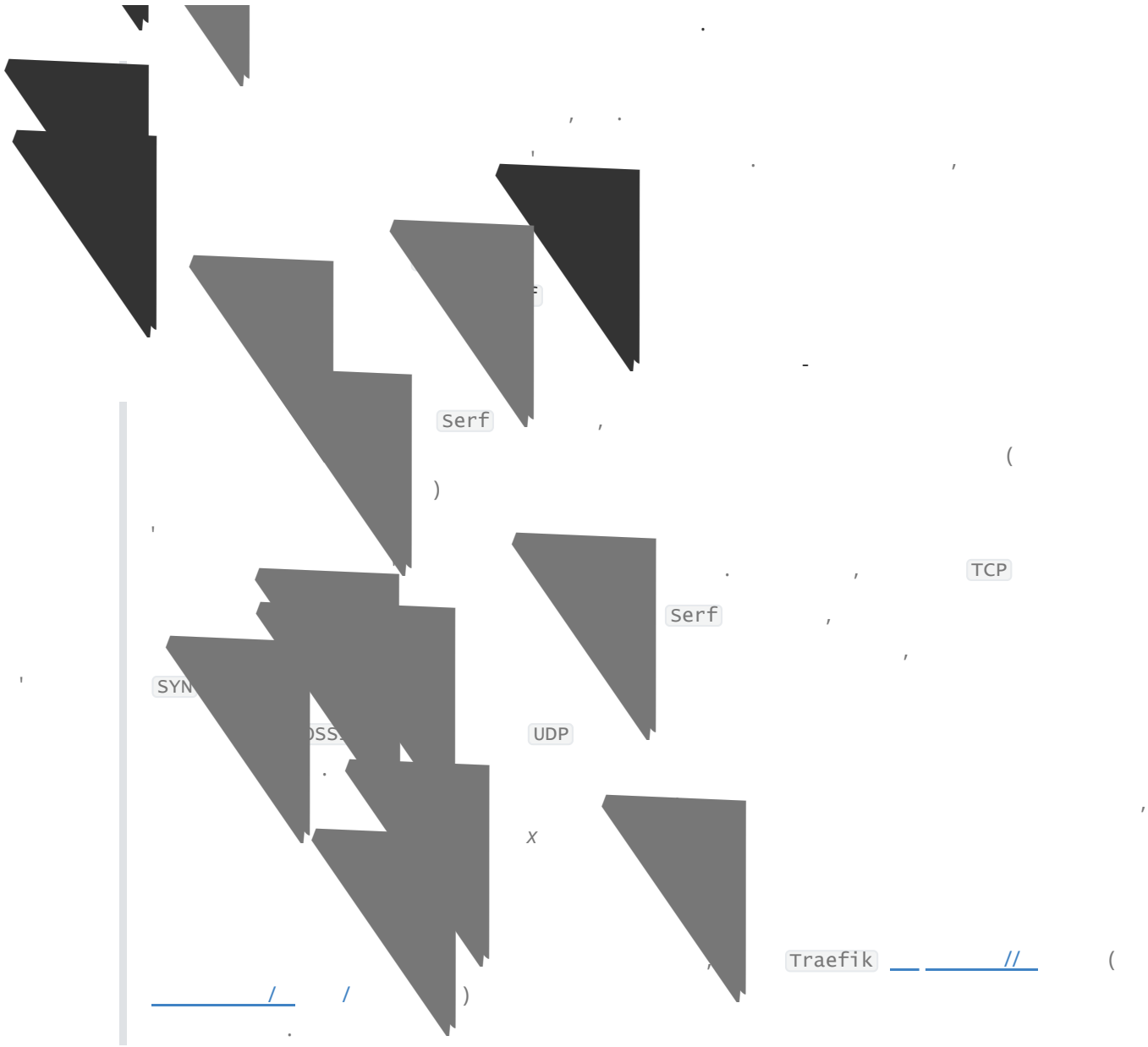
nodes

	Queue			Session rate			Sessions						Bytes		Denied		Errors			Warnings		Server								
	Cur	Max	Limit	Cur	Max	Limit	Cur	Max	Limit	Total	LbTot	Last	In	Out	Req	Resp	Req	Conn	Resp	Retr	Redis	Status	LastChk	Wght	Act	Bck	Chk	Dwn	Dwntme	Thrtle
s1	0	0	-	0	1		0	1	-	1	1	13s	589	506		0		0	0				TOK/200 in 2ms	1	Y	-	0	0	0s	-
s2	0	0	-	0	0		0	0	-	0	0	?	0	0		0		0	0				TOK/200 in 5ms	1	Y	-	0	0	0s	-
Backend	0	0		0	1		0	1	52 427	1	1	13s	589	506	0	0		0	0	0				2	2	0		0	0s	

HAProxy stats

process supervisor `s6`

Task 2: Add a tool to manage membership in the web server cluster



Deliverables

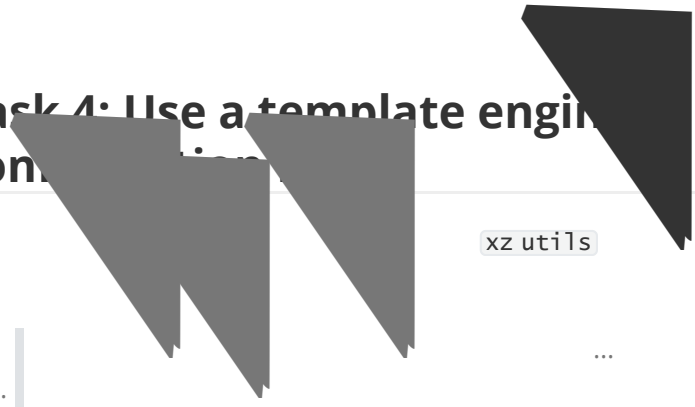
- [ ]

Task 3: React to membership changes

Deliverables

- [ ]

Task 4: Use a template engi easily generate con



```
RUN command 1
RUN command 2
RUN command 3
```

```
RUN command 1 && command 2 && command 3
```

RUN

RUN

s ng flattening

1

ha webapp

squ --

0

multi-stage

COPY from=imgName --)

logs

Deliverables

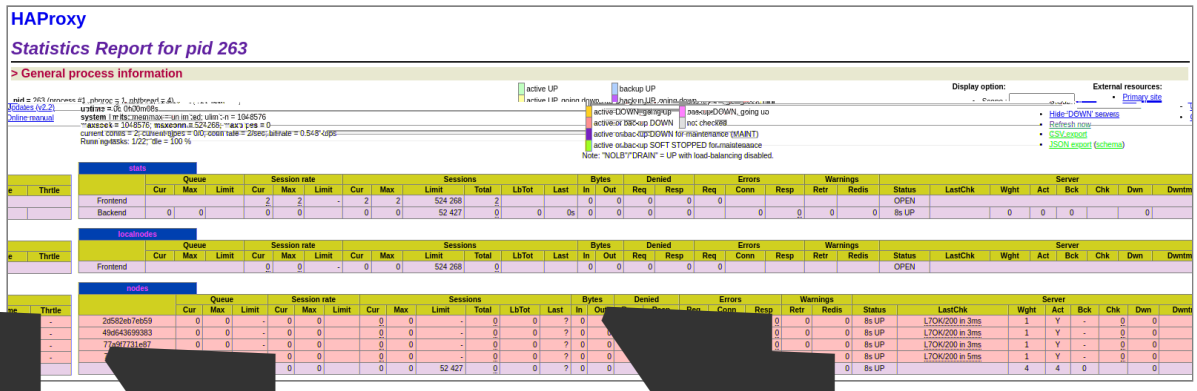
- _____ _____

Task 5: Generate a new load balancer configuration when membership changes

Deliverables

- _____ _____

Task 6: Make the load balancer automatically reload the new configuration



HAProxy stats avec 4

Traefik

Deliverables:

Difficultés

Conclusion

`s6` `serf`