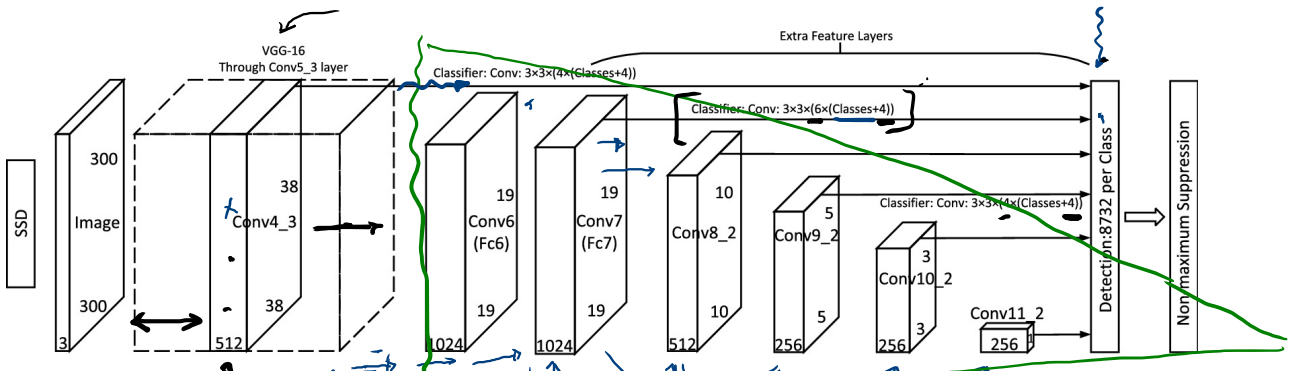
SSD

a Single shot Detector and Single shot multibox Detector.

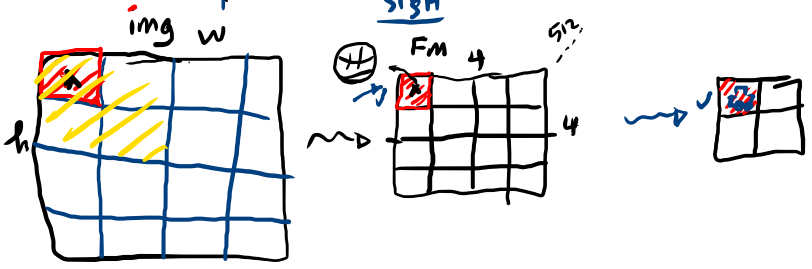
Low resolution → { 300×300, 512×512

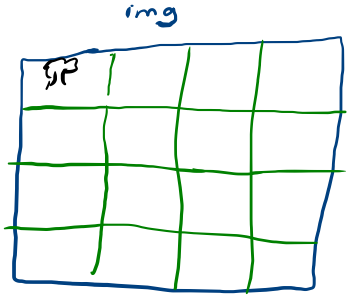


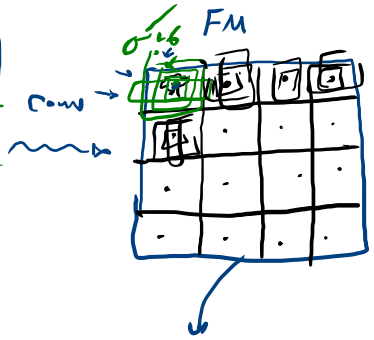
Conv

stage 1

stage 4







in 1 cell → 6 box → 4 coordinate → $(\Delta c_x, \Delta c_y, \Delta w, \Delta h)$

$[c_1, c_2, c_3, \cdots, c_n, c_b]$

number of classes.

$4 \times 4 \times 6$

96

$w \times H \times 6$

$w \times H \times 4$

$(w - Fm \times H - Fm) \times 6 \times [\Delta c_x, \Delta c_y, \Delta w, \Delta h, c_1, \cdots, c_N, c_b]$

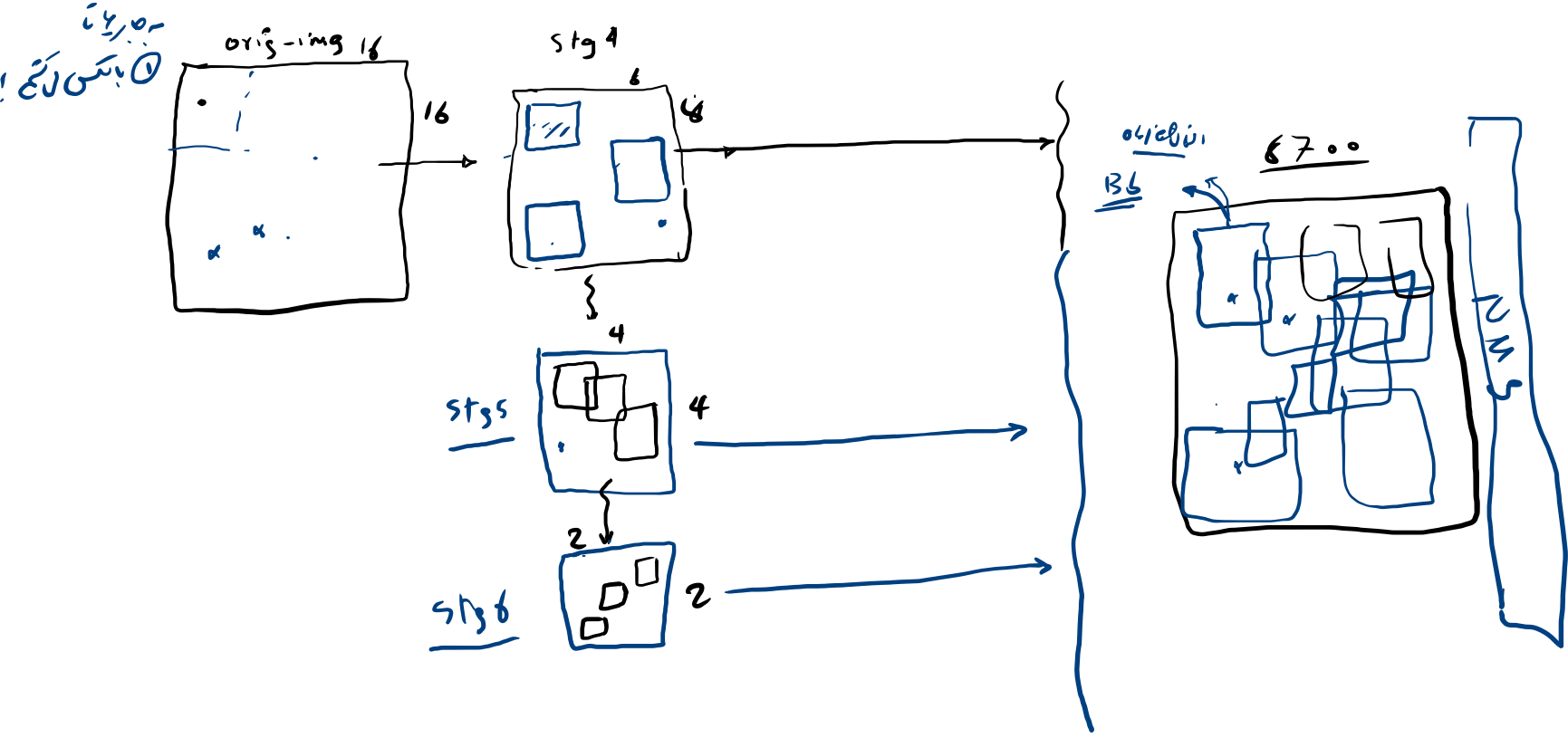
4

تعداد کلاس‌ها + 1

خروجی هر سل $[\Delta c_x, \Delta c_y, \Delta w, \Delta h, c_1, c_2, \cdots, c_N, c_b]$

Stage دوم

system	mAP	FPS	Number of boxes	Input Resolution
Faster RCNN VGG(16)	73,2	7	~ 6000	~ 1000 x 600
yolo	63,4	45	~ 98	~ 448 x 448
SSD300	77,2	46	~ 8732	~ 300 x 300
SSD 512	79,8	19	~ 24564	~ 512 x 512


orig-img 16
16
stg 4
4
4
stg5
4
2
stg6
2
67.00
BG
M

The End

la fine