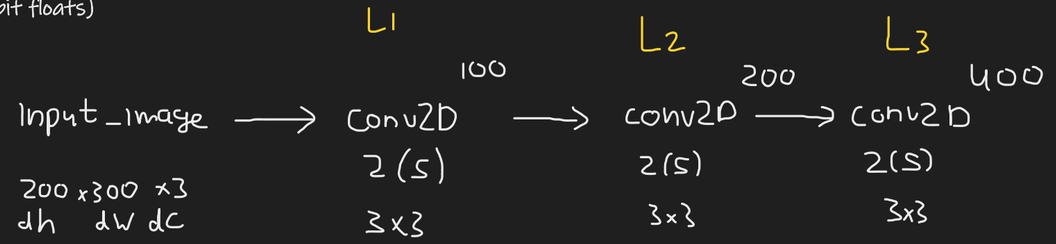
n_param = (m*n*input + bias) * output

memory = feature_map * 32(bit floats)



$L_1 = (3*3*3+1)*100 = 2800$

$L_2 = (3*3*100+1)*200 = 180200$

$L_3 = (3*3*200+1)*400 = 720,400$

Total parameters = 903,400

Parameters memory = 903,400 * 4 = 3.6MB

$L_1 = 100 \times 150 \times 100$

$L_2 = 50 \times 75 \times 200$

$L_3 = 25 \times 38 \times 400$

Memory requied per Layer

(100 * 100 * 150 * 32) / 8 = 6MB

(200 * 50 * 75 * 32) / 8 = 3MB

(400 * 25 * 38 * 32) / 8 = 1.5MB

Memory required for batch of 50 images:

- RAM requided by all layers = 10.5MB * 50(batch) = 525MB

- Memory required for parameters = 3.6MB

- Memory required for 50 images = 50 * 300 * 200 * 3 * 4 = 36MB

TOTAL Memory = 525 + 3.6 + 36 = 565MB