Group 13

In

cnt

Rotate Left | Shift Left | Shift Right Arith | Shift Right Logical

Mark
Apoorva
Kevin

00   01   ō   =

OP[1:0]

↓

out

Example:
cnt[3]

Leftshift8 —/— N

Shift 8

N

In —

left shift 8_out

In
Shift 4

leftshift4 —

cnt[2]

leftshift 4 out

cnt[1]

Shift 2

leftshift 2 —

leftshift_2 out

Shift 1 — out

leftshift 1 out

cnt[0]
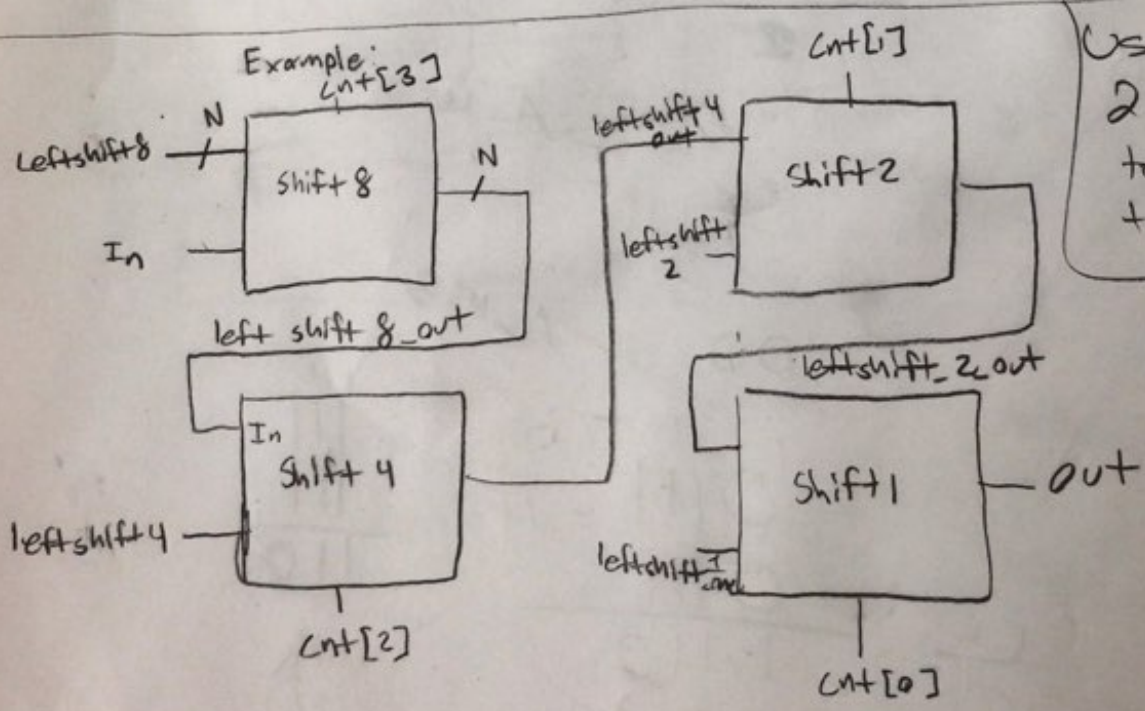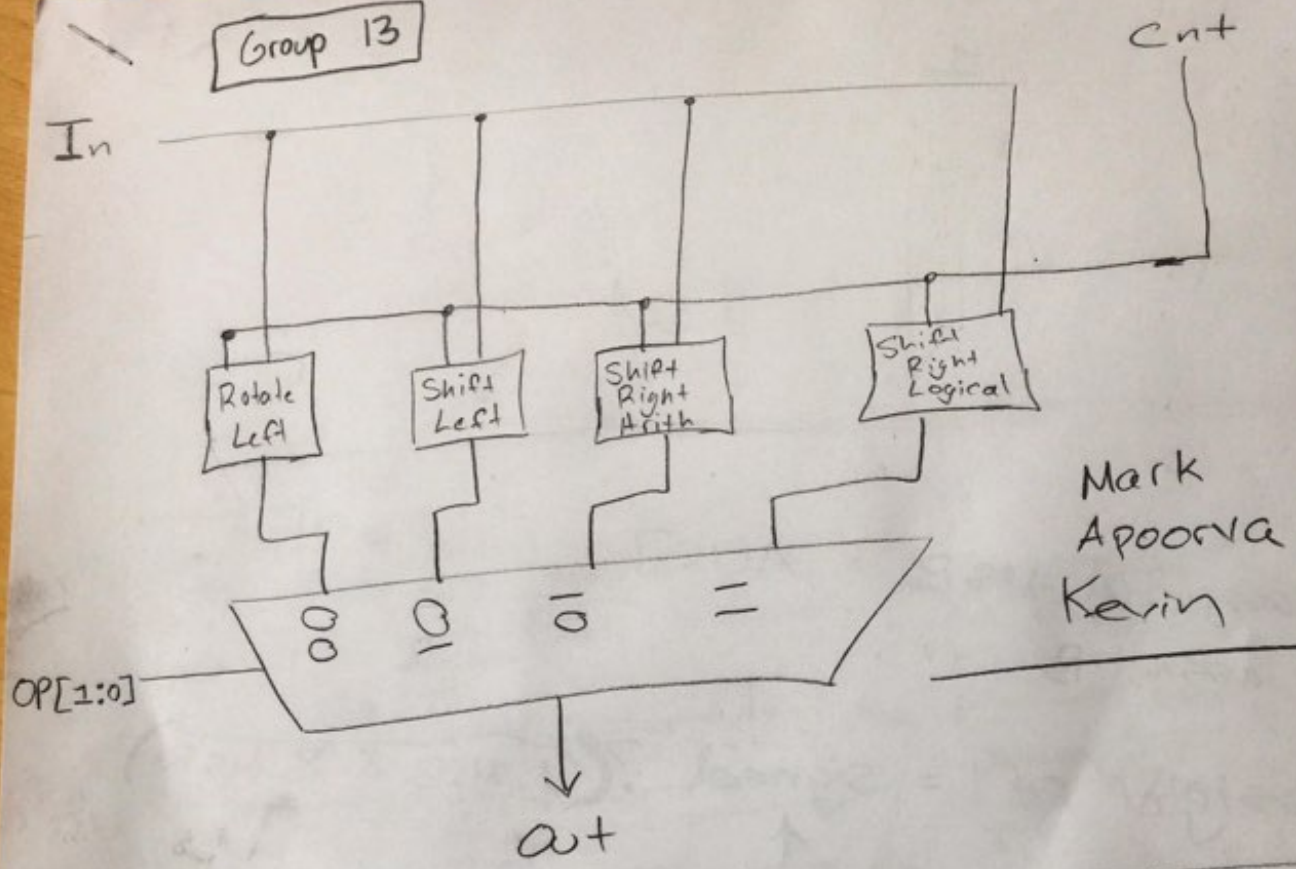
Use 4, 16 bit
2 to 1 muxes
to do all
the shifts

left Shift 8 = { In[7:0], {8{1'b0}}}

⋮

left shift 1 = {leftShift2_out[14:0], {1'b0}}

For the other shifters
just pass in different
values.