

# ARM Pipeline

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## 2 Instrucciones Soportadas

- Operaciones Aritmeticas

- add, qadd
- sub, qsub
- mul, mla

- Operaciones Logicas

- and, bic, orr, eor
- cmp, cmn, tst, teq

- Mov y Shift

- mov
- lsr, asr, lsl, ror

- Load y Store

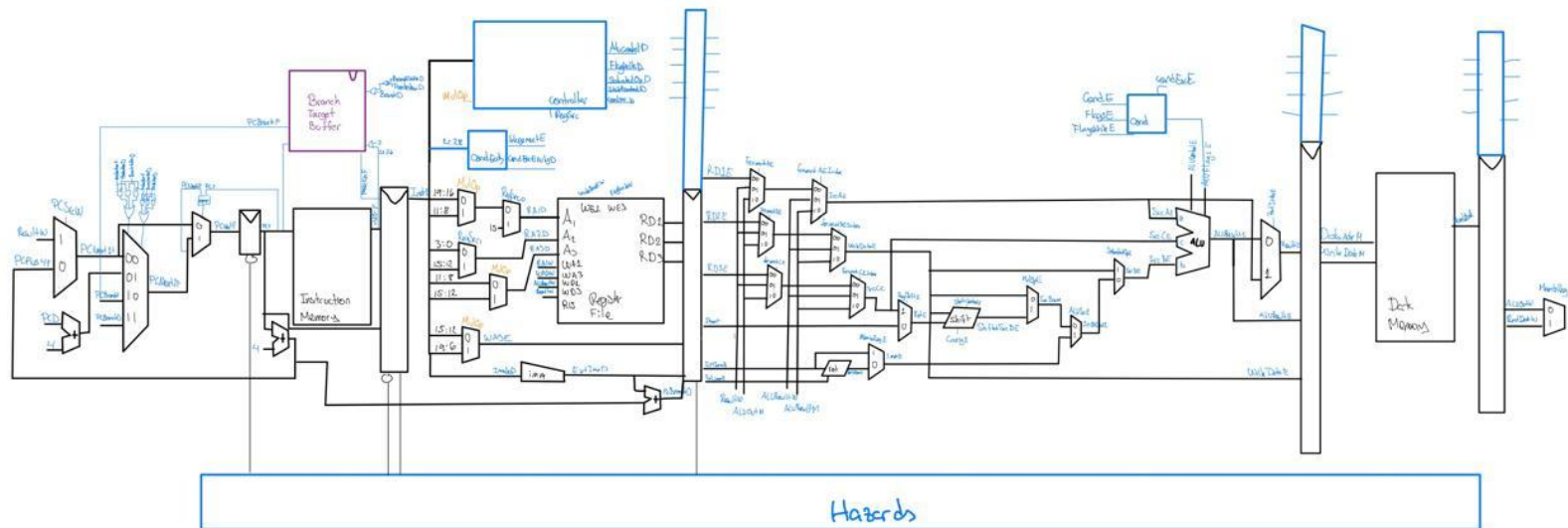
- Offset, Pre-offset, Post-offset, y Literales variants for `ldr` and `str`

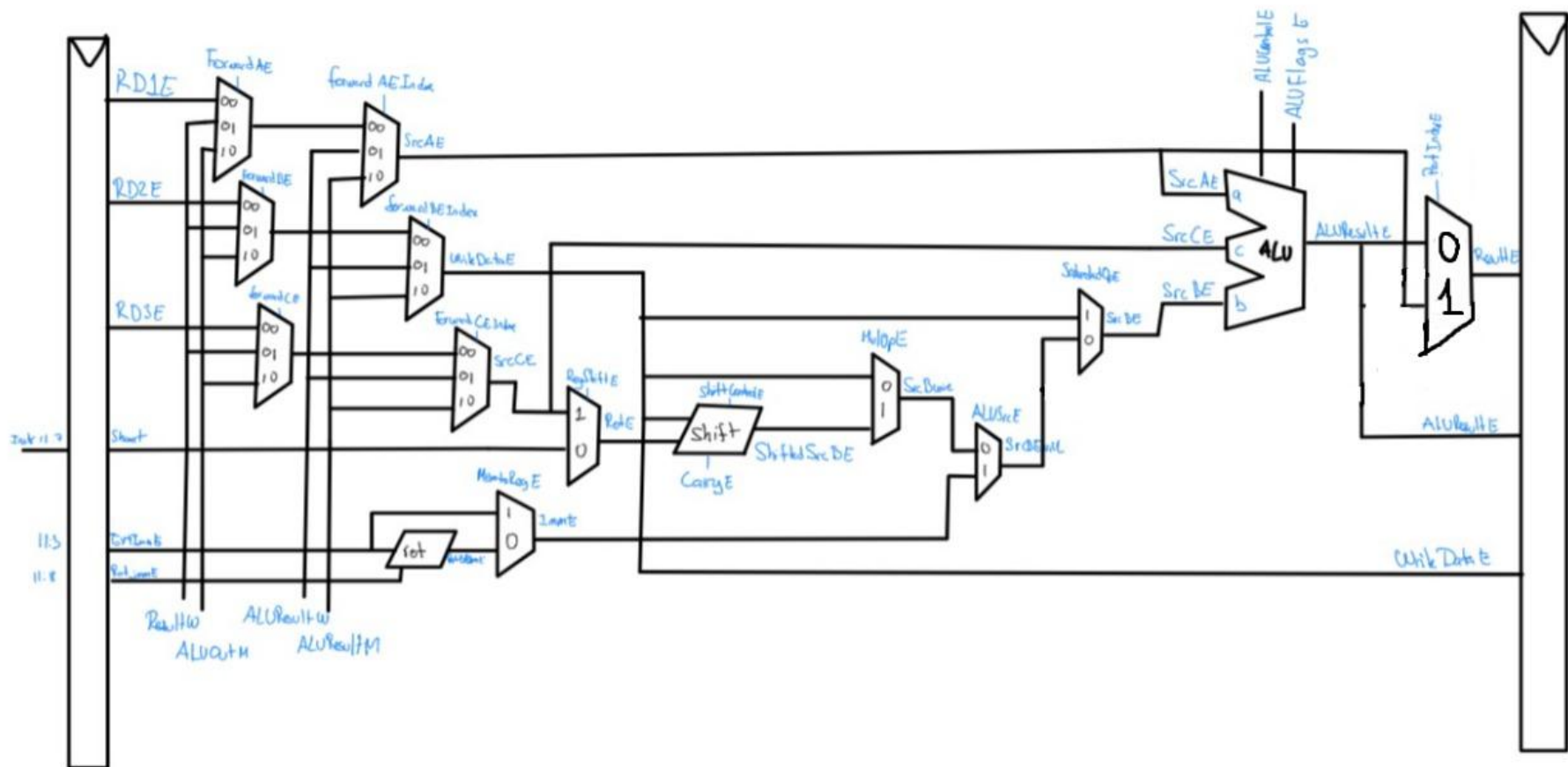
- Branch Operations

- b

- Flags

- Flags: Negative (N), Zero (Z), Carry (C), Overflow (V), Saturated (Q)





## Branch Predictor 2-bits:

F	T	D	$S_1 S_0$	
0	0	0	00	$PC + 4$
0	0	1	01	$PCD + 4$
0	1	0	10	PC Branch D
0	1	1	00	$PC + 4$
1	0	0	11	PC Branch F
1	0	1	01	$PCD + 4$
1	1	0	10	PC Branch D
1	1	1	11	PC Branch F

$S_1 + D$

F	00	01	11	10
0	0	0	0	1
1	1	0	1	1

$$S_1 = F\bar{D} + F\bar{T} + T\bar{D}$$

$S_0 + D$

F	00	01	11	10
0	0	1	0	0
1	1	1	1	0

$$S_0 = F\bar{T} + \bar{T}D + FD$$

