

**You can use all wiring, gates, plexers and memory circuit, only adder and shifter in arithmetic circuits**

**You need 1 adder(32bit) and 1 shifter(64bit) for datapath part. (lecture5/page12)**

**If you design adder & shifter own, you take bonus point.**

Your report file include datapath design, control unit design, least 6 test cases.

Hints:

- circuit file (.circ) can be include more than one circuit design (we shown in ps hour)
- It can be useful create test set for all circuit files.

Submission format must be as follows:

**StudentNo.zip -> StudentNo (folder) -> control.circ, datapath.circ, mult32.circ, Report\_hw2.pdf**