

programming language \rightarrow restricted syntax \rightarrow Formal language.

\rightarrow set of steps \rightarrow algorithm \rightarrow solve problems.

Abstraction \rightarrow High-level language (closest to the problem domain)

\downarrow

\rightarrow efficiency. \rightarrow save time,
productivity. easy to read.
portability.

Compiler

\downarrow

\rightarrow Assembly language-

\downarrow

\rightarrow fast rep. of instructions.

\rightarrow easier to read for entering machine code.

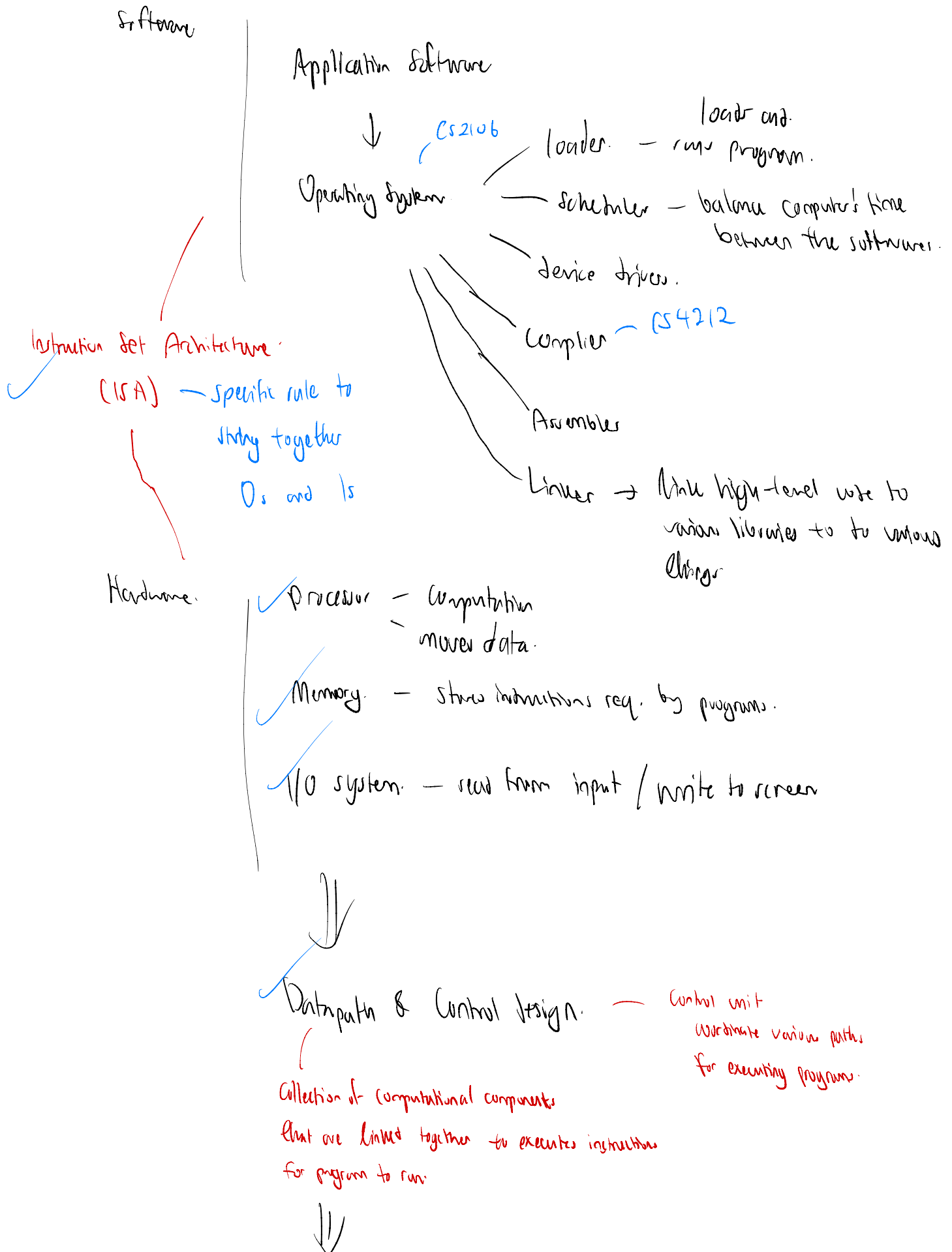
Assembler

\downarrow

\rightarrow Machine code (object code / binary).

\rightarrow error-prone

Hardware/Software Stack in Computers.



CS2100

✓ Digital Logic Design.

⇓

Circuit Design.

⇓

Transistors.

L3 cache → special, high speed memory → faster operations.

Coc → Control Unit → Coordinate components

CPV →

Arithmetic and Logic Unit.

↳ Collections of components.

↳ add numbers together.

↳ move data

↳ compare data.

↳ branches.

Computer Organisation.

↳ how it works

↳ how everything is structured together and how they interact.

↳ how, based on these concepts, implement a computer system.

↳ Digital Logic Design → ISA

Cache → ordering of loops?