

Handout: OWL

Building blocks

- *individuals*
- *classes* (correspond to concepts in DLs)
- *object properties* (roles in DLs)
- *data properties*: connect individuals to data values (integers, strings)
- *annotation properties*: used to annotate ontologies, classes, axioms, ...

Axioms & constructors

DL syntax	OWL (Manchester syntax)
$C \sqsubseteq D$	C SubClassOf: D
$C \equiv D$	C EquivalentTo: D
$C \sqsubseteq \neg D$	C DisjointWith: D
$R \sqsubseteq S$	R SubPropertyOf: S
$C(a)$	Individual: a Types: C
$r(a, b)$	Individual: a Facts: r b
$\neg C$	not C
$C \sqcup D$	C or D
$C \sqcap D$	C and D
$\exists r.C$	r some C
$\forall r.C$	r only C
$\exists r.\{a\}$	r value $\{a\}$
$\geq n r.C$	r min n C
$\leq n r.C$	r max n C
r^-	inverse r
$\top$	owl:Thing
$\perp$	owl:Nothing