# Regole Operazionali

Edict:

$$\frac{(\forall id_1 \in ds_{id} : (\nexists id_2 \in ds_{id} : id_1 \neq id_2))}{env \triangleright Edict\ d \Rightarrow Dict\ ds}$$

Insert:

$$\frac{env \triangleright e \Rightarrow v,\ env \triangleright d \Rightarrow Dict(ds),\ (\forall id_1 \in ds_{id} : id \neq id_1)}{env \triangleright Insert(id, e, d) \Rightarrow Dict(ds) \cup (id, v)}$$

Delete:

$$\frac{env \triangleright d \Rightarrow Dict(ds)}{env \triangleright Delete(id, d) \Rightarrow Dict(ds) \setminus \{(id, v)\}}$$

Has_key:

$$\frac{env \triangleright d \Rightarrow Dict(ds)}{env \triangleright Has\_key(id, d) \Rightarrow Bool(id \in ds)}$$

Filter:

$$\frac{env \triangleright d \Rightarrow Dict(ds)}{env \triangleright Filter(ls, d) \Rightarrow Dict(ds \cap ls)}$$

Iterate:

$$\frac{env \triangleright d \Rightarrow Dict(ds),\ env \triangleright f \Rightarrow fun}{env \triangleright Iterate(f, d) \Rightarrow Dict(fun(ds))}$$

Fold:

$$\frac{env \triangleright d \Rightarrow Dict(ds),\ env \triangleright f \Rightarrow fun}{env \triangleright Fold(f, d, a) \Rightarrow fun(fun(..fun(a, v_1), v_2).., v_n)}$$