Definition (Category of M-algebras). Let $\langle M, \text{un}, \text{mu} \rangle$ be a monad on a category **C**. The *category of M-algebras* $\mathbf{C}^M$ of the monad M is specified by:

1. *Objects*: M-algebras;
2. *Morphisms*: M-algebra morphisms;
3. *Identities*: given an M-algebra $\langle X, a \rangle$, its identity morphism is Id_X;
4. *Composition*: is induced by the composition of morphisms in **C**.