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

1. $Objects: Ob(\mathbf{C}_M) := Ob(\mathbf{C});$

2. Morphisms: $\operatorname{Hom}_{\mathbf{C}_M}(X,Y) := \operatorname{Hom}_{\mathbf{C}}(X,M(Y));$

3. Identities: $Id_X := un_X$;

4. Composition: Kleisli composition.