

Do notation

$\text{pure} :: \forall a f. \text{Applicative } f \Rightarrow a \rightarrow f a$

$\text{empty} :: \forall a f. \text{Plus } f \Rightarrow f a$

$\text{countThrows} :: \text{Int} \rightarrow \text{Array}(\text{Array Int})$

$\text{countThrows } n = \text{do}$

$x \leftarrow 1 \dots 6 \quad \text{---} [1,2,3,4,5,6]$

$y \leftarrow 1 \dots 6 \quad \text{---}$

$\text{if } x + y == n$

$\text{then pure } [x, y]$

$\text{else empty}$

$\text{pure} :: \text{Int} \rightarrow [\text{Int}]$

$\text{pure } x = [x]$

$\text{empty} :: \text{Int} \rightarrow [\text{Int}]$

$\text{empty} = []$

$\text{func} :: \forall m. \text{Applicative } m \Rightarrow \text{Plus } m \Rightarrow \text{Int} \rightarrow \text{Int} \rightarrow \text{Int} \rightarrow m(\text{Array Int})$

$\text{func } n \ x \ y = \text{if } x + y == n$

$\text{then pure } [x, y]$

$\text{else empty}$

$\text{in } \rightarrow [1,2,3,4,5,6] \mid \text{char}(\backslash x \rightarrow$

$[1,2,3,4,5,6] \mid \text{char}(\backslash y \rightarrow$

$\text{func } n \ x \ y \quad \text{-- Array (Array Int)}$

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