

Example: Banking System

WithdrawMoney

Δ BankAccount

dollarAmount? : \mathbb{N}

centAmount? : \mathbb{N}

dollarAmount? \leq dollars

dollarAmount? = dollars \Rightarrow centAmount? \leq cents

centAmount? $>$ cents

$\Rightarrow (\text{dollars}' = \text{dollars} - \text{dollarAmount?} - 1$
 $\wedge \text{cents}' = \text{cents} - \text{centAmount?} + 100)$

centAmount? \leq cents

$\Rightarrow (\text{dollars}' = \text{dollars} - \text{dollarAmount?}$
 $\wedge \text{cents}' = \text{cents} - \text{centAmount?})$