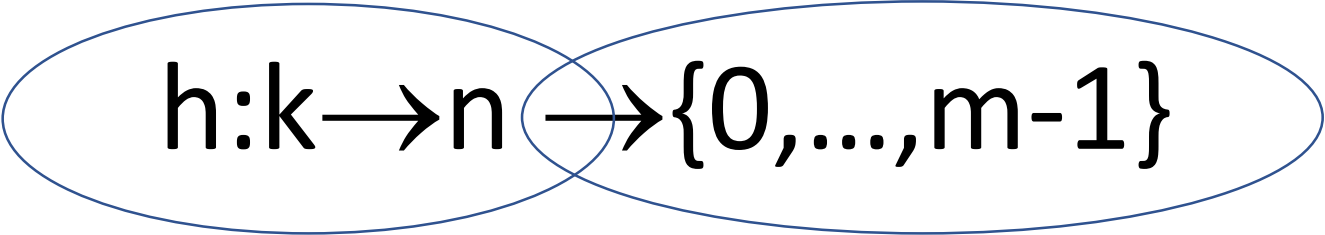


פונקציית גיבוב למחרוזות



The diagram shows the function signature $h:k \rightarrow n \rightarrow \{0, \dots, m-1\}$. Two overlapping blue ellipses are drawn around the expression. The first ellipse encloses the part $h:k \rightarrow n$. The second ellipse encloses the part $\rightarrow \{0, \dots, m-1\}$. The overlapping region of the two ellipses contains the arrow \rightarrow that separates the two parts.

$$h:k \rightarrow n \rightarrow \{0, \dots, m-1\}$$

‘NOW’

פונקציית גיבוב למחרוזות

$$h:k \rightarrow n \rightarrow \{0, \dots, m-1\}$$

‘NOW’=

N=110, O=111, W=119 (ASCII)

פונקציית גיבוב למחרוזות

$$h:k \rightarrow n \rightarrow \{0, \dots, m-1\}$$

‘NOW’=

N=110, O=111, W=119 (ASCII)

$$\text{‘123’} = 1 * 10^2 + 2 * 10^1 + 3 * 10^0$$

$$\text{‘312’} = 3 * 10^2 + 1 * 10^1 + 2 * 10^0$$

פונקציית גיבוב למחרוזות

$$h:k \rightarrow n \rightarrow \{0, \dots, m-1\}$$

$$\begin{aligned} \text{'NOW'} &= \text{'N'} * 128^2 + \text{'O'} * 128^1 + \text{'W'} * 128^0 = \\ &= 110 * 128^2 + 111 * 128^1 + 119 * 128^0 = 1,816,567 \% M \end{aligned}$$

N=110, O=111, W=119 (ASCII)

$$\text{'123'} = 1 * 10^2 + 2 * 10^1 + 3 * 10^0$$

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$$\begin{array}{ccccccc} & & 2 & & 1 & & 0 \\ L & & & & & & \\ & L-1 & + & & L-2 & \dots & + & 1 \end{array} = (1 + (L-1))(L-1)/2 = O(L^2)$$

$$N=110, O=111, W=119 \text{ (ASCII)}$$

$$\text{'123'} = 1 * 10^2 + 2 * 10^1 + 3 * 10^0$$

$$\text{'312'} = 3 * 10^2 + 1 * 10^1 + 2 * 10^0$$

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$$\begin{array}{ccccccc} & & 2 & & 1 & & 0 \\ & & & & & & \\ L & & L-1 & + & L-2 & \dots & + & 1 = (1+(L-1))(L-1)/2 \\ & & & & & & & = O(L^2)\end{array}$$

N=110, O=111, W=119 (ASCII)

$$\begin{aligned}\text{'NOW'} &= ((128 * 0 + \text{'N'}) * 128 + \text{'O'}) * 128 + \text{'W'} = & O(L) \\ &= 110 * 128^2 + 111 * 128^1 + 119 * 128^0 = 1,816,567\end{aligned}$$

Horner's Algorithm: for (h=0; *v!='\0';v++)
 h=(a*h+*v)