1 **Function** $GroeiNoS(\mathcal{D}, b)$

Data: Dataset $\mathcal{D}$, Beam-width b

Result: Code tables $\mathcal{CT} = \{CT_i, \ldots, CT_k\}$

2 $k \leftarrow 1$;

3 $\mathcal{CT}_1^{cand} \leftarrow \texttt{Generate}(CT_\alpha^{\mathcal{D}})$;

4 $\mathcal{CT}_1^{best} \leftarrow \{CT \mid \text{best } b \text{ tables from } \mathcal{CT}_1^{cand}\}$;

5 **repeat**

6 $k \leftarrow k + 1$;

7 $\mathcal{CT}_k^{cand} \leftarrow \texttt{Generate}(\mathcal{CT}_{k-1}^{best})$;

8 $\mathcal{CT}_k^{best} \leftarrow \{CT \mid \text{best } b \text{ tables from } \mathcal{CT}_k^{cand} \cup \mathcal{CT}_{k-1}^{best}\}$;

9 **until** $L(\mathcal{D} \mid \mathcal{CT}_k^{best}) \geq L(\mathcal{D} \mid \mathcal{CT}_{k-1}^{best})$;

10 **return** $\mathcal{CT}_k^{best}$;