

Diagram illustrating the input and output sequences for a sequence-to-sequence model:

- Input Sequence (x , source table):** Harry Potter , Education , Hogwarts
- Output Sequence (y , target utterance):** Harry Potter is graduated from Hogwarts.

The sequences are mapped to hidden states h_1 through h_{15} :

- Input sequence x is mapped to hidden states h_3 through h_8 .
- Output sequence y is mapped to hidden states h_9 through h_{15} .

The sequences are also mapped to indices 1 through 15:

- Input sequence x is mapped to indices 3 through 8.
- Output sequence y is mapped to indices 9 through 15.

The sequences are also mapped to sets of indices:

- Input sequence x is mapped to $X = [3, 4, 5, 6, 7, 8]$.
- Output sequence y is mapped to $Y = [9, 10, 11, 12, 13, 14, 15]$.

Article: Scientists at University College London discovered people tend to think that their hands are wider and their fingers are shorter than they truly are. They say the confusion may lie in the way the brain receives information from different parts of the body. Distorted perception may dominate in some people, leading to body image problems ... [ignoring 308 words] could be very motivating for people with eating disorders to know that there was a biological explanation for their experiences, rather than feeling it was their fault."

Summary: The brain naturally distorts body image – a finding which could explain eating disorders like anorexia, say experts.

Diagram illustrating the construction of a prefix tree (trie) for the sentence "Harry Potter, Education, Hogwarts".

The root node is labeled **PREFIX**. The tree structure shows the following nodes and their children:

- PREFIX** (Root) has two children: **h1** and **h2**.
- h1** has one child: **h3**.
- h2** has one child: **h4**.
- h3** has one child: **h5**.
- h4** has one child: **h6**.
- h5** has one child: **h7**.
- h6** has one child: **h8**.
- h7** has one child: **1**.
- h8** has one child: **2**.
- 1** has one child: **3**.
- 2** has one child: **4**.
- 3** has one child: **5**.
- 4** has one child: **6**.
- 5** has one child: **7**.
- 6** has one child: **8**.
- 7** has one child: **1**.
- 8** has one child: **2**.

The final structure shows the mapping of the sentence to the index:

- P = [1, 2]** (Prefix)
- X = [3, 4, 5, 6, 7, 8]** (Suffix)

Diagram illustrating the input sequence for a sequence-to-sequence model. The input sequence is divided into a PREFIX' and a target utterance y .

The PREFIX' is represented by the hidden states h_9 and h_{10} , which are grouped by a bracket labeled $P+=[9, 10]$.

The target utterance y is represented by the hidden states h_{11} through h_{17} , which are grouped by a bracket labeled $Y=[11, 12, 13, 14, 15, 16, 17]$.

The target utterance is shown in green text: **[SEP] Harry Potter is graduated from Hogwarts.**

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Table:  name[Clowns]  customer-  
rating[1 out of 5]  eatType[coffee  
shop]  food[Chinese]  area[riverside]  
near[Clare Hall]
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Textual Description: Clowns is a coffee shop in the riverside area near Clare Hall that has a rating 1 out of 5 . They serve Chinese food .