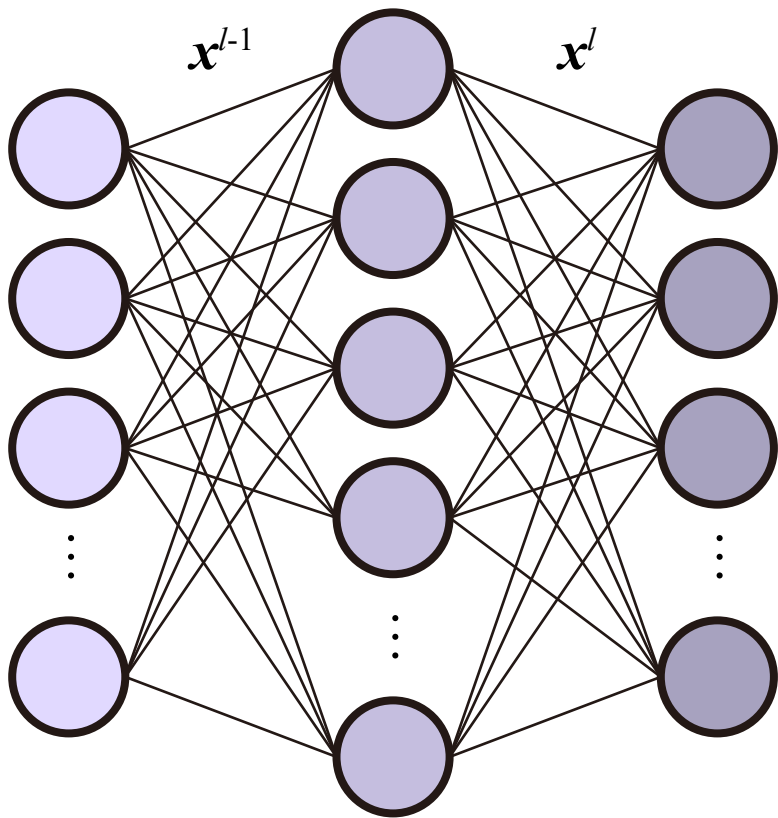
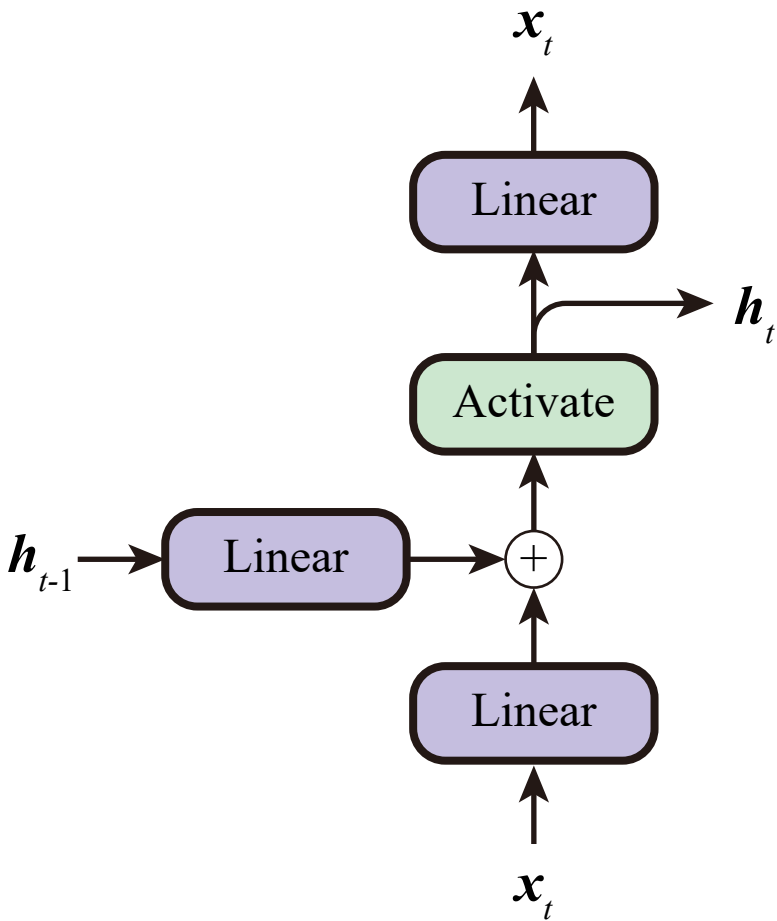


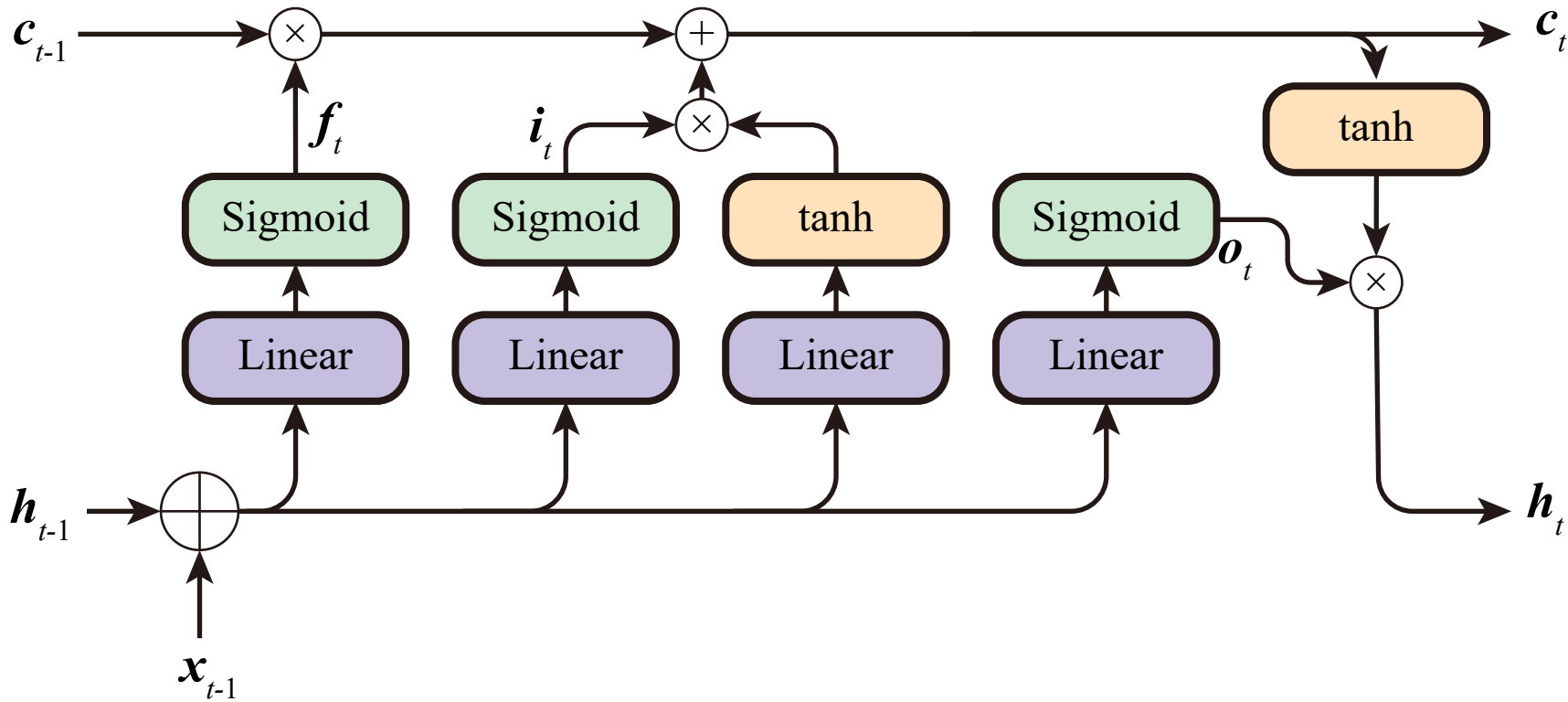
第 $l-1$ 层

第 l 层

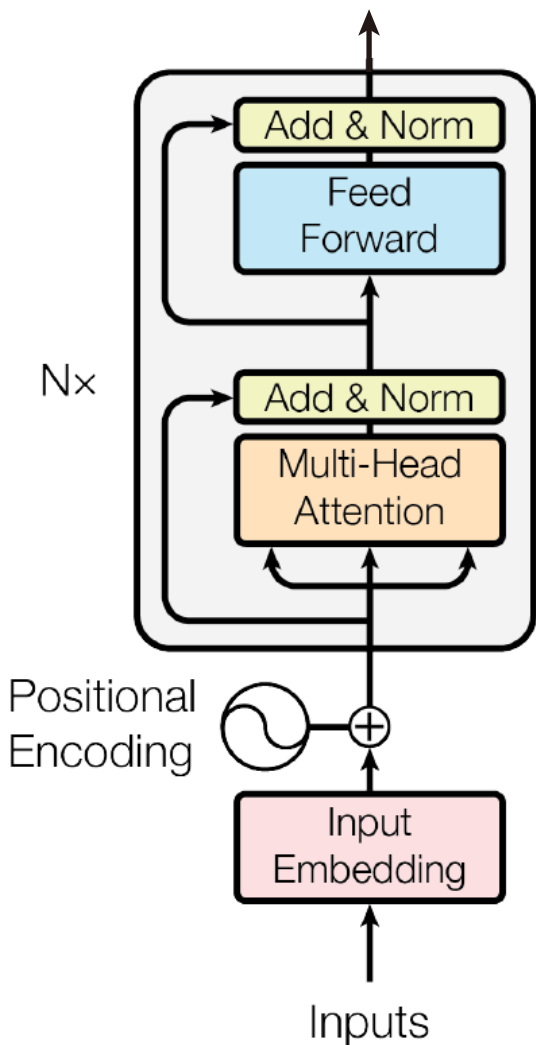
第 $l+1$ 层







编码后的向量表示



上一轮交互SQL语句



SQL语句编码器 (Bi-LSTM)



对自然语言、数据库架构、
上一轮SQL的注意力机制

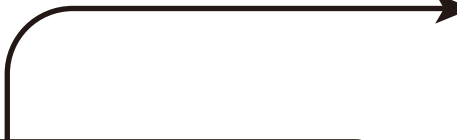


SQL解码器 (LSTM)



SQL语句

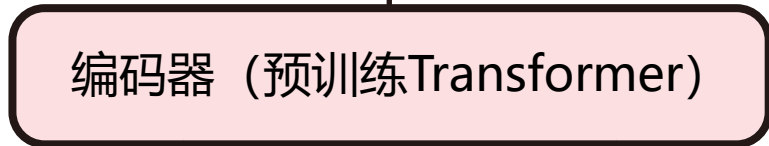
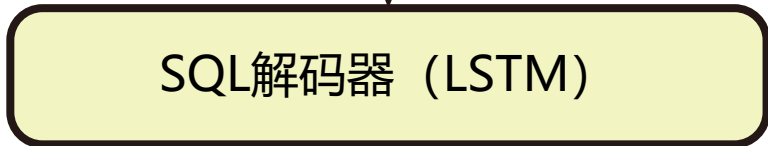
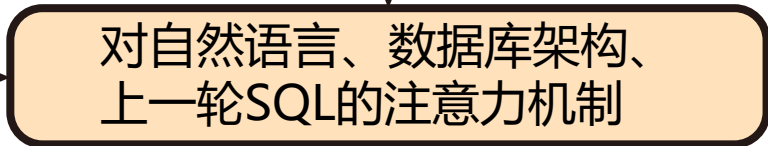
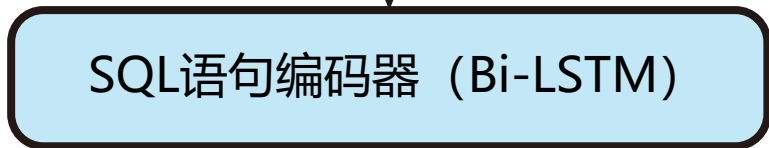
编码器 (预训练Transformer)



自然语言查询



数据库架构



h^E Bi-LSTM^E h_1^C Bi-LSTM^C h_2^C Bi-LSTM^C

预训练Transformer

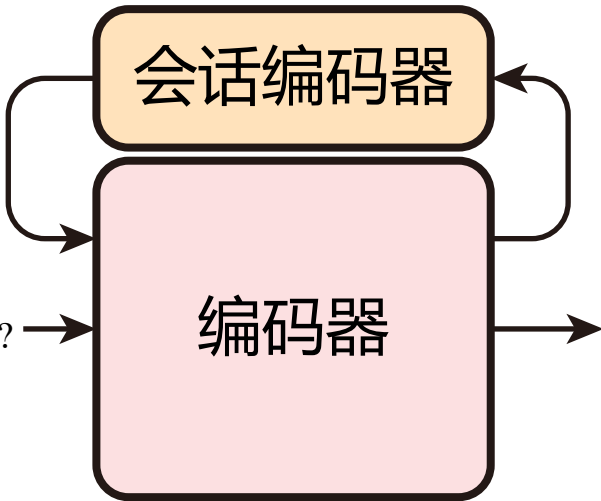
Who are all the party hosts? [SEP] table : party ; columns : party id , party theme , table : ...

Tell me the sales of HSBC.

How about that of PetroChina?

会话编码器

编码器

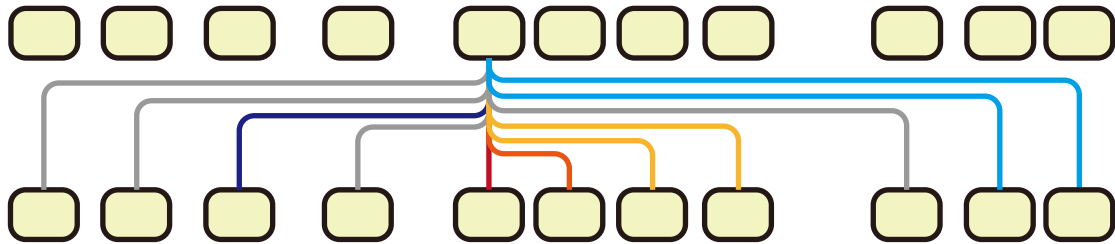


Tell me the sales of HSBC.
How about that of PetroChina?



编码器





... [SEP] table : party ; columns : party id , party theme , table : host party ...

● 自己 ● 同一列中其他单词 ● 同一表中其他列 ● 一对多关联表 ● 其他