# Character Embedding:
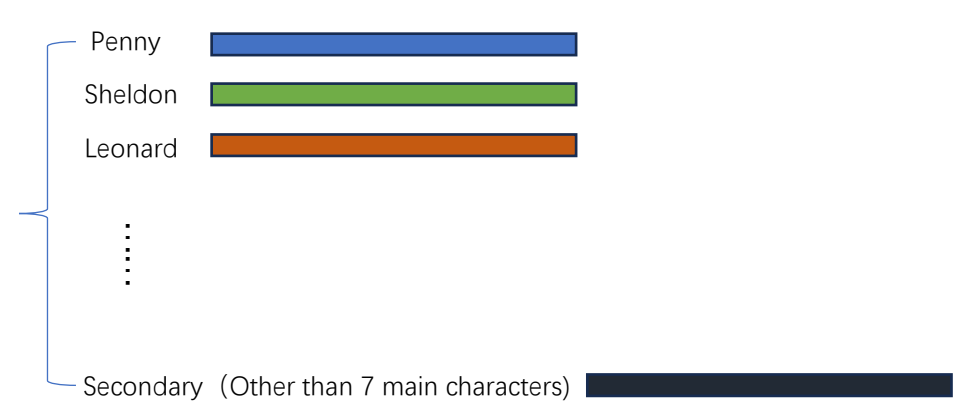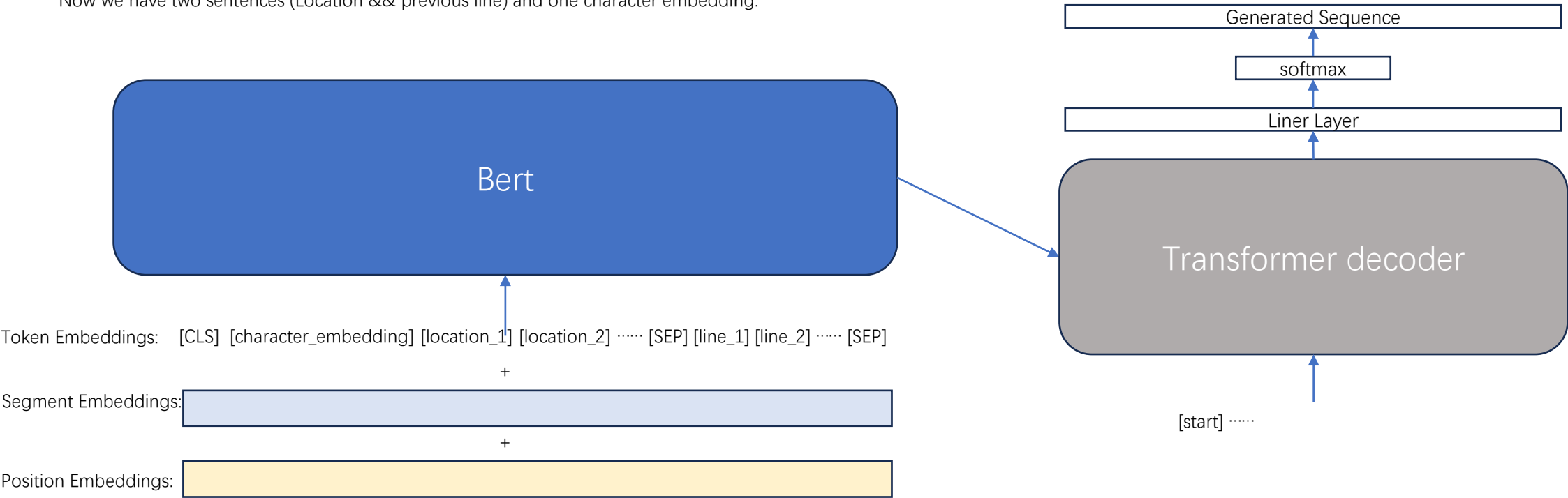
Penny

Sheldon

Leonard

⋮

Secondary （Other than 7 main characters）

**Characters in current scene**: Penny, Sheldon, Leonard;   **Next character who speak**: Sheldon;

$$Character\_Embedding = \left[ \begin{array}{c} \\ + \\ \\ + \\ \end{array} \right] \ / \ 3 \ + \quad \rule{3cm}{0.4cm}$$

Now we have two sentences (Location && previous line) and one character embedding:

Generated Sequence

softmax

Liner Layer

Bert

Transformer decoder

Token Embeddings:   [CLS]  [character_embedding] [location_1] [location_2] ⋯⋯ [SEP] [line_1] [line_2] ⋯⋯ [SEP]

+

Segment Embeddings:

+

Position Embeddings:

[start] ⋯⋯

**Note**: Location_n means the nth token in the location description text, line_n means the nth token in the given line