

QA System using Bert and KG

Methodology of one paper :

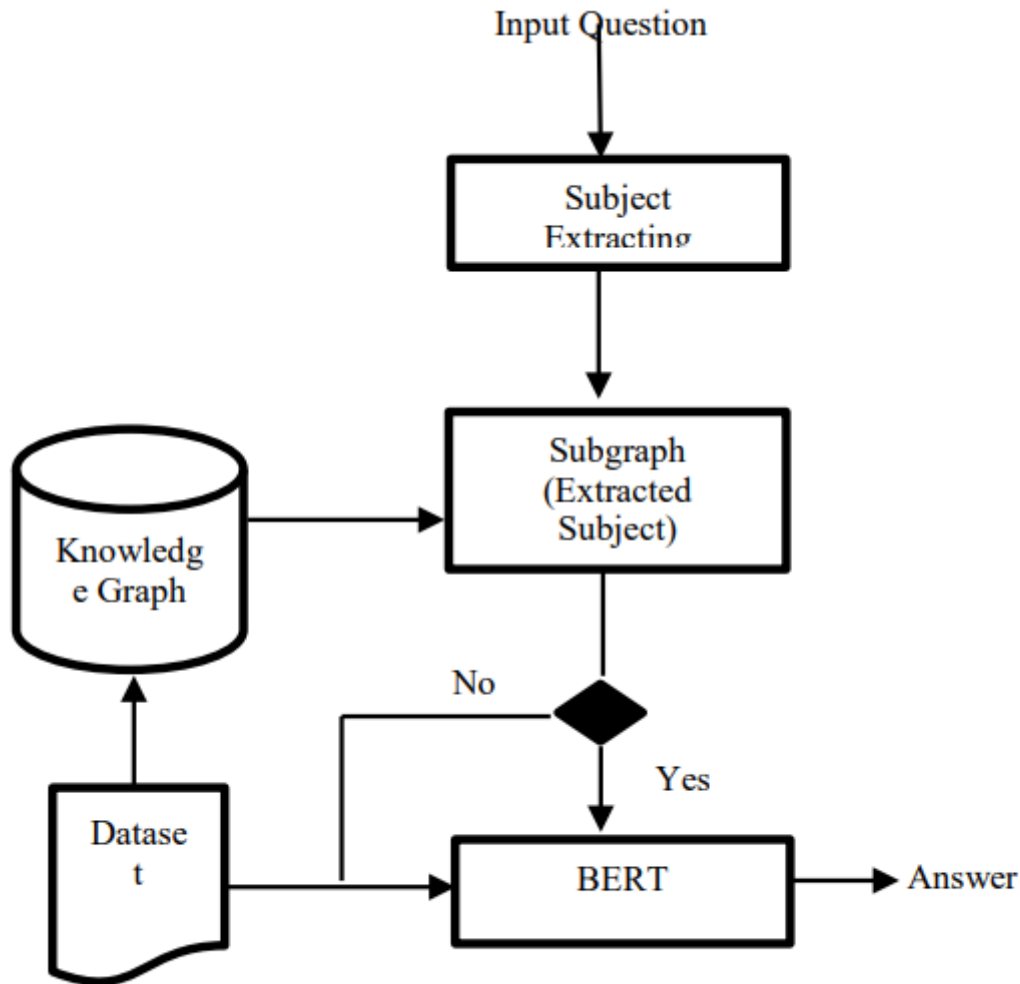


Fig 1. A Vietnamese Tourism Question Answering System using BERT.

1. System accepts natural language question.
2. Secondly, the extract subject components is responsible for drawing out entities in the questions
3. Entities become input
4. parameters for the subgraph components that is responsible for extracting a subgraph obtained from knowledge graph
5. This subgraph contains the extracted entities
6. If a subgraph, exists the subgraph is converted to context

7. Otherwise, the dataset becomes context
8. The contextual context and the question becomes the input for BERT to produce the final answer.

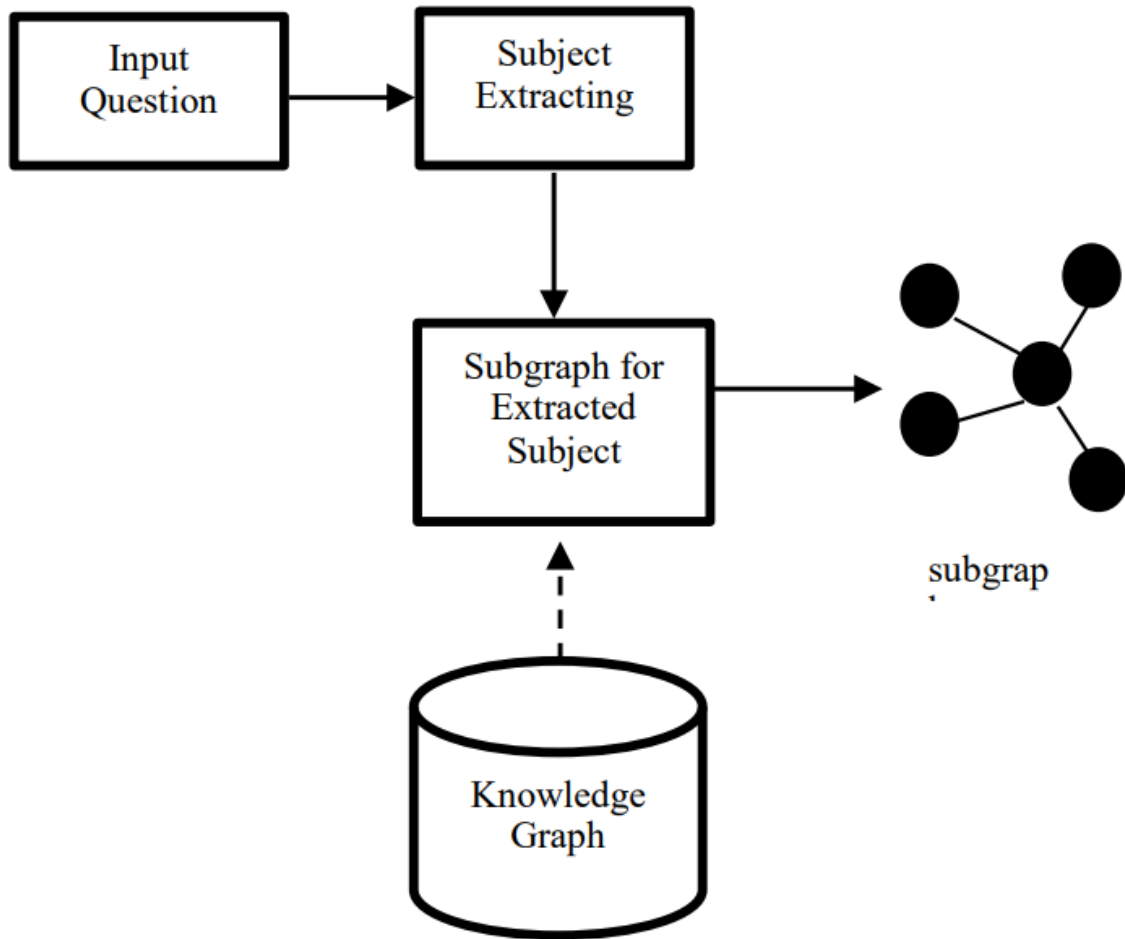


Fig 3. Illustration of Process that Extracted Subgraph from Knowledge Graph.

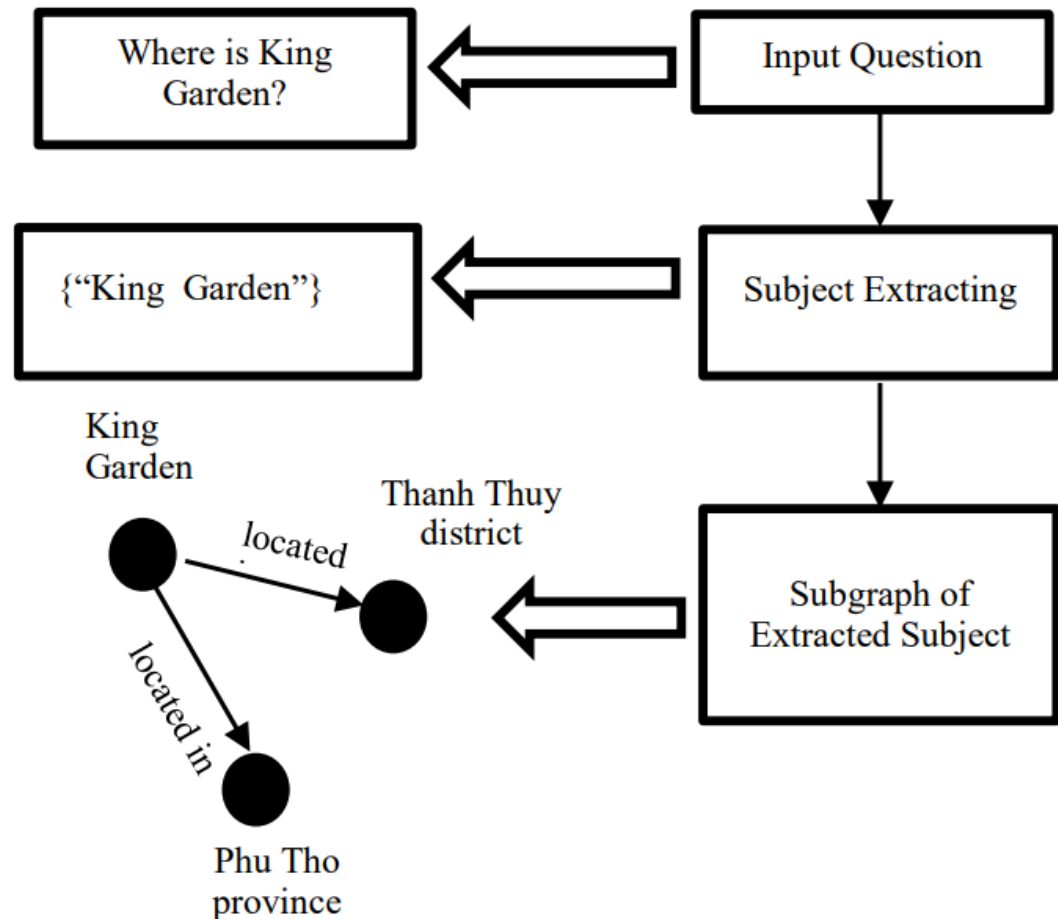


Fig 4. An Example about Extracting a Subgraph for Sentence "King Garden Located in Thanh Thuy District, Phu Tho Province"" was applied by Subgraph for Extracted Subject Module.

We can add a comparison between, BERT, LSTM, RNN, BERT + KG, LSTM + KG, RNN + KG

STEP 1 :

We have a dataset, so we find a way to convert that dataset to a Knowledge Graph.

STEP 2 :

How we are going to be Extracting subject and subgraphs

STEP 3 :

How we are going to be converting the subgraph to a context

STEP 4 :

Passing the context created to BERT for Answer prediction

STEP 5 :

Thinking about doing the same for LSTM, RNN's