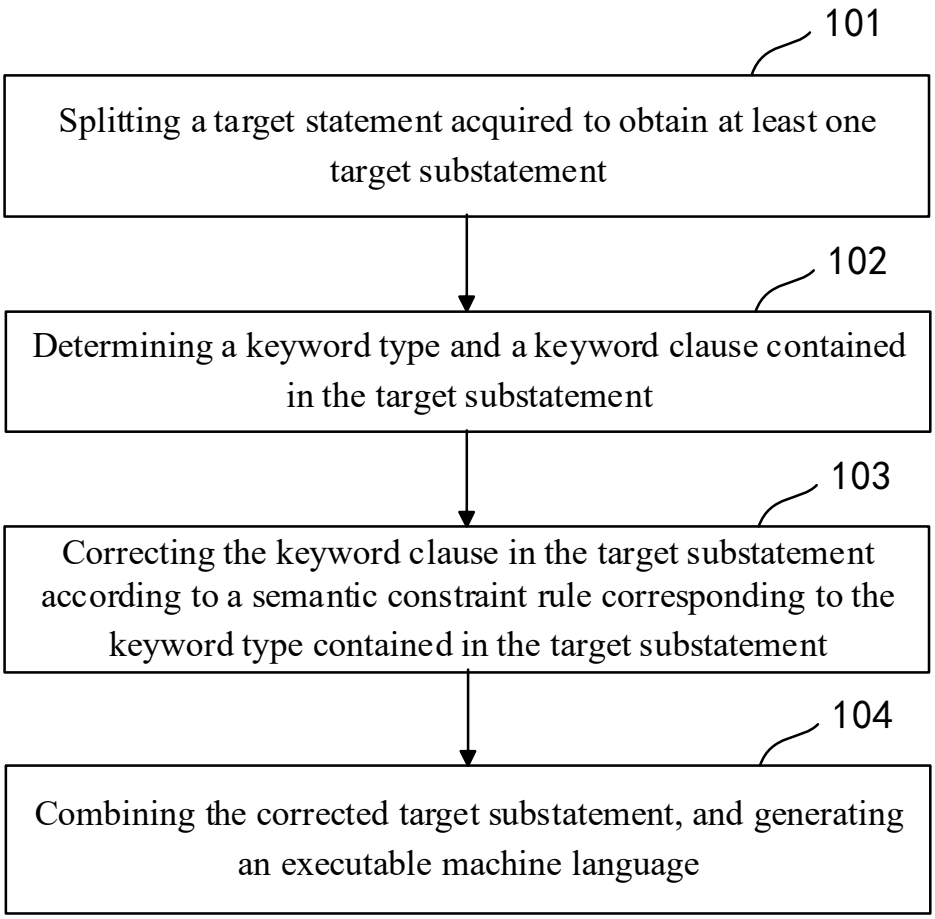

101
Splitting a target statement acquired to obtain at least one target substatement
102
Determining a keyword type and a keyword clause contained in the target substatement
103
Correcting the keyword clause in the target substatement according to a semantic constraint rule corresponding to the keyword type contained in the target substatement
104
Combining the corrected target substatement, and generating an executable machine language

FIG. 1

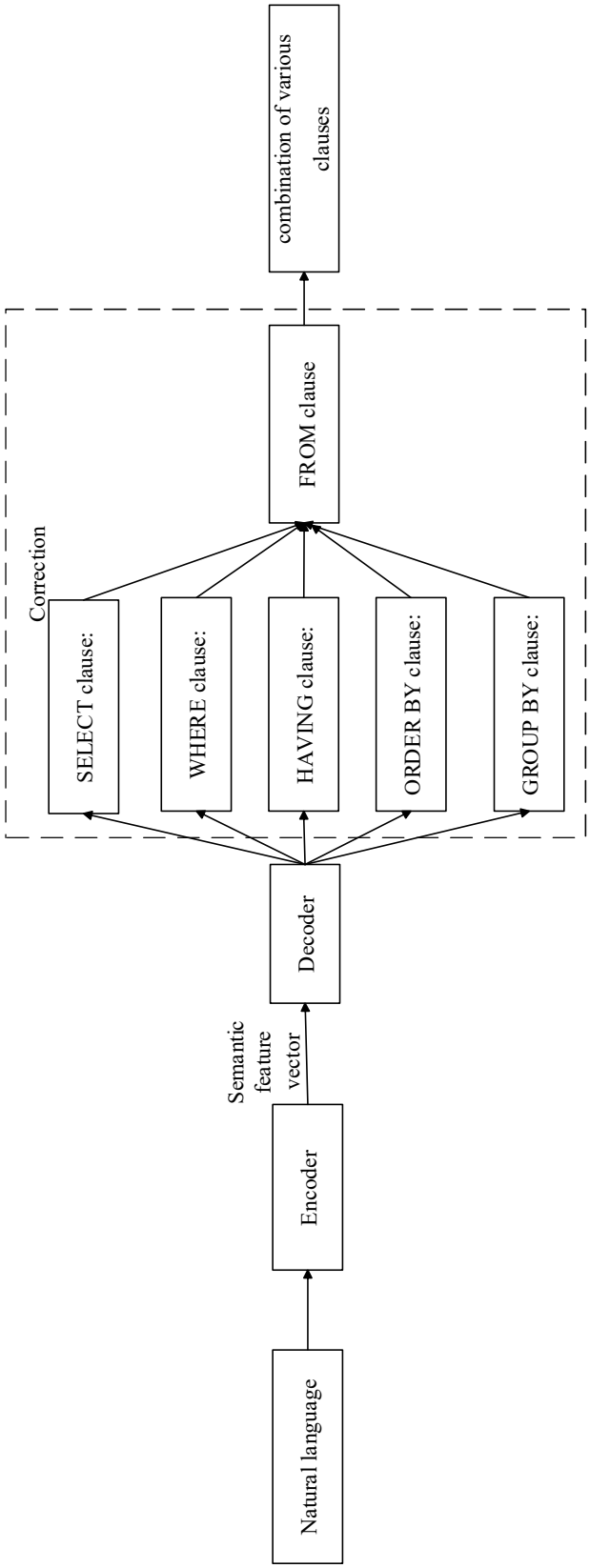

Natural language
Encoder
Semantic feature vector
Decoder
Correction
SELECT clause:
WHERE clause:
HAVING clause:
ORDER BY clause:
GROUP BY clause:
FROM clause
combination of various clauses

FIG. 2

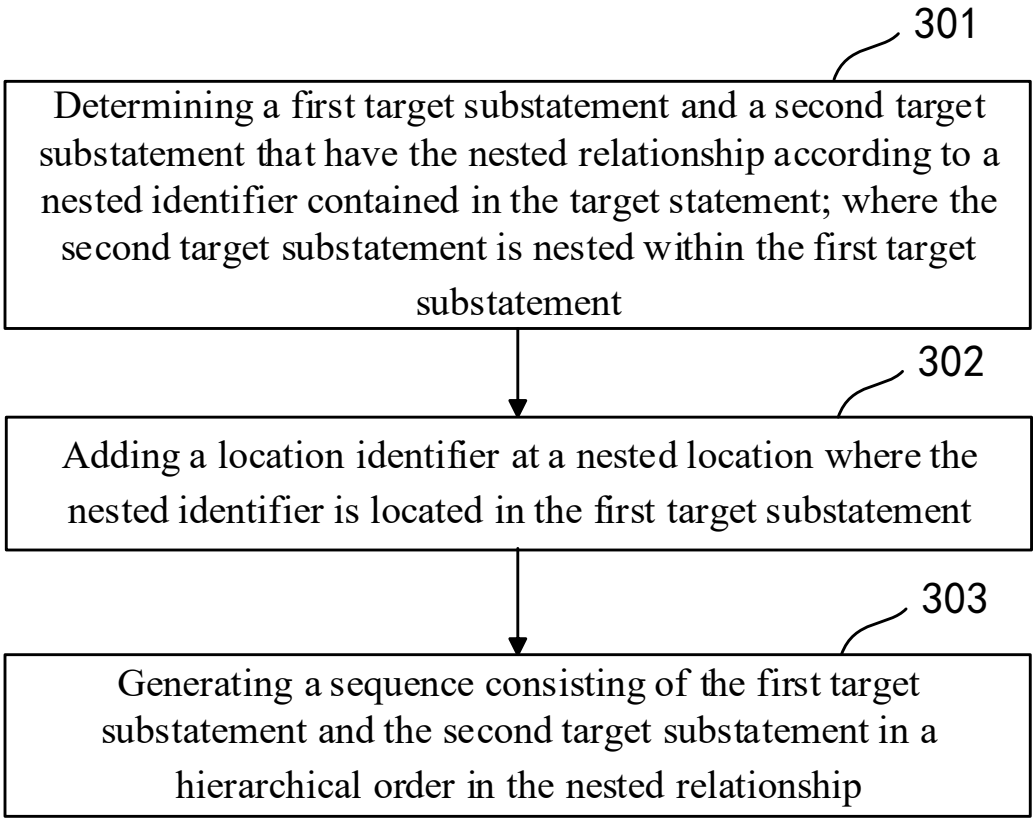

301
Determining a first target substatement and a second target substatement that have the nested relationship according to a nested identifier contained in the target statement; where the second target substatement is nested within the first target substatement
302
Adding a location identifier at a nested location where the nested identifier is located in the first target substatement
303
Generating a sequence consisting of the first target substatement and the second target substatement in a hierarchical order in the nested relationship

FIG. 3

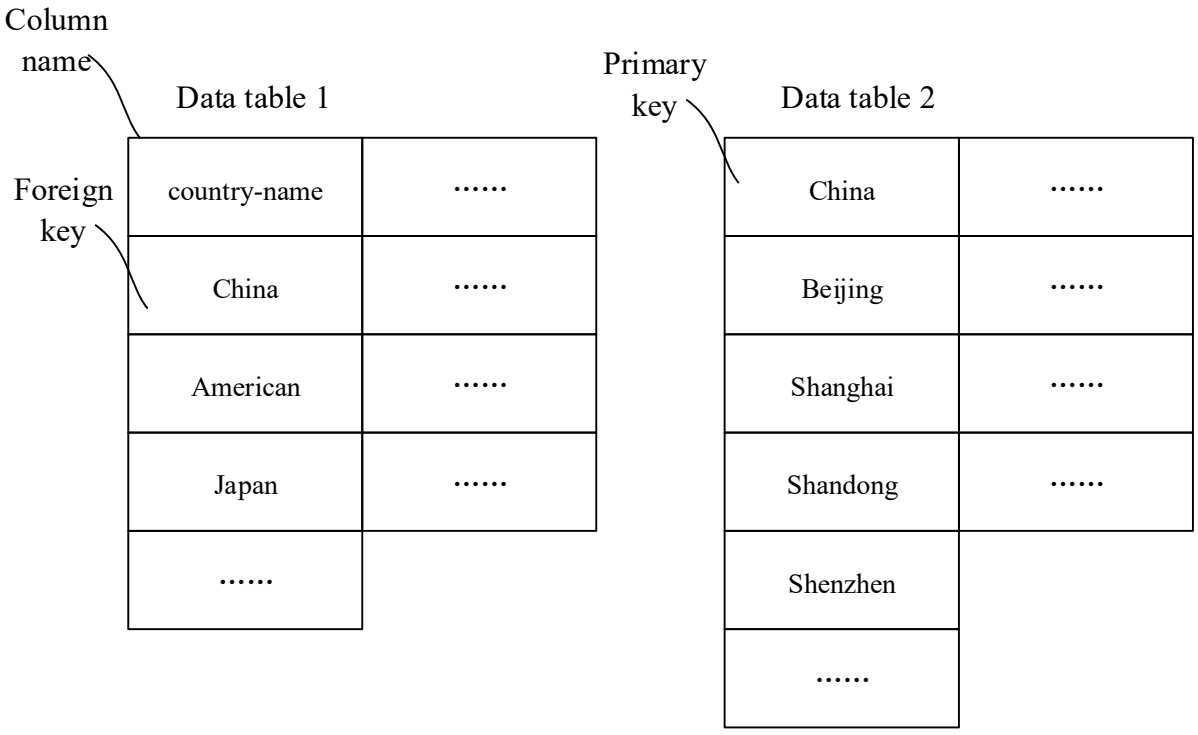

Column name
Data table 1
Foreign key
country-name
China
American
Japan
Primary key
Data table 2
China
Beijing
Shanghai
Shandong
Shenzhen

FIG. 4

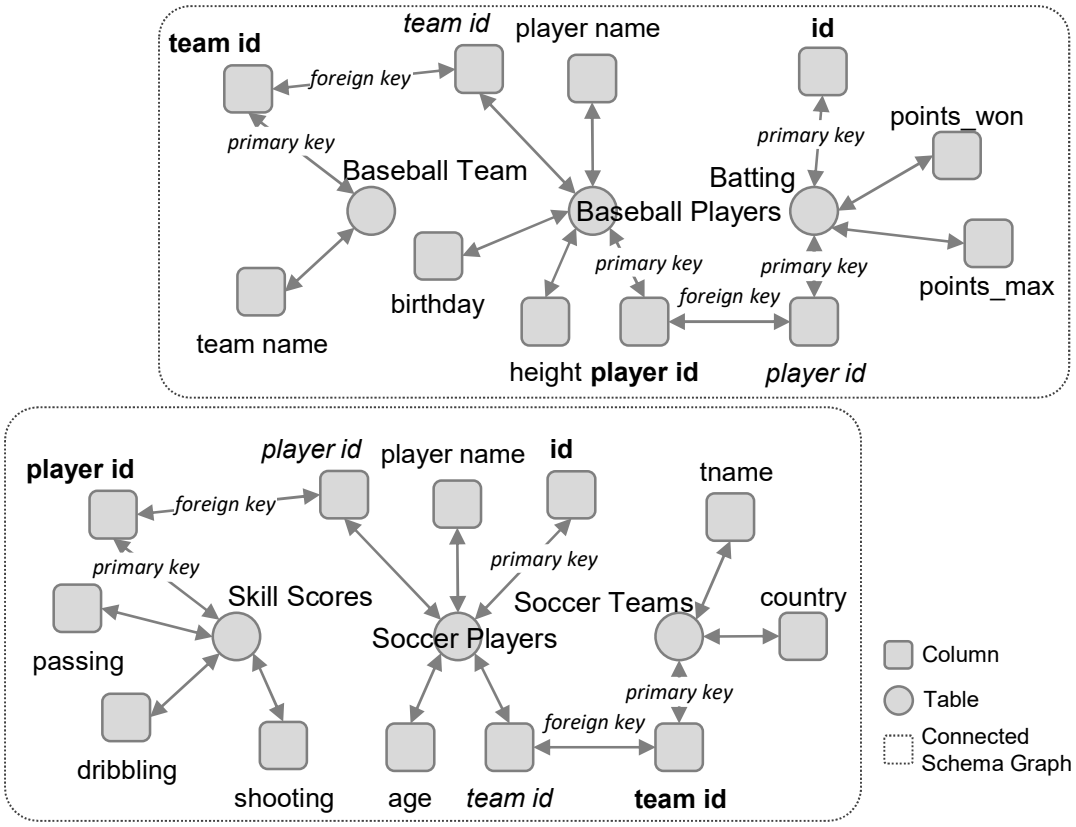

team id
player name
id
team id
foreign key
primary key
Baseball Team
Baseball Players
Batting
points_won
points_max
birthday
team name
height
player id
player id
player id
player name
id
tname
player id
foreign key
primary key
Skill Scores
Soccer Players
Soccer Teams
country
passing
dribbling
shooting
age
team id
team id
Column
Table
Connected Schema Graph

FIG. 5

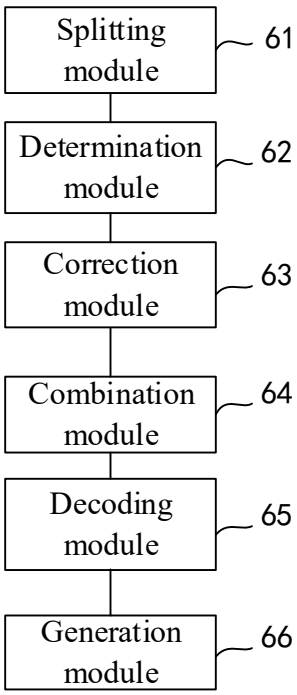

Splitting module
61
Determination module
62
Correction module
63
Combination module
64
Decoding module
65
Generation module
66

FIG. 6

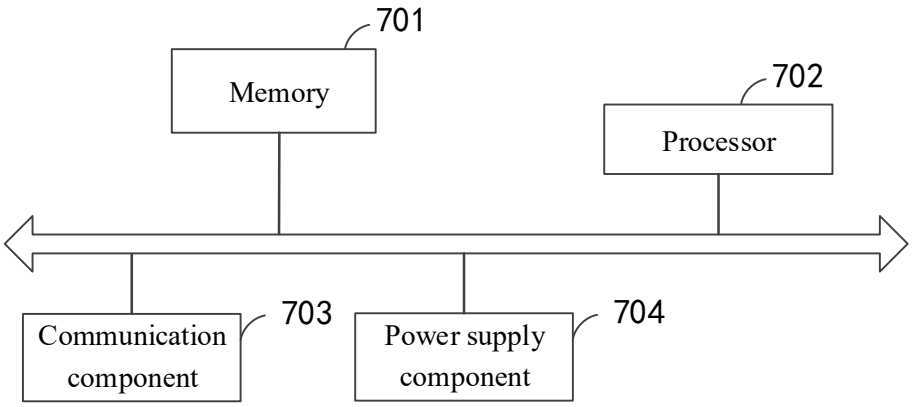

701
Memory
702
Processor
703
Communication component
704
Power supply component

FIG. 7

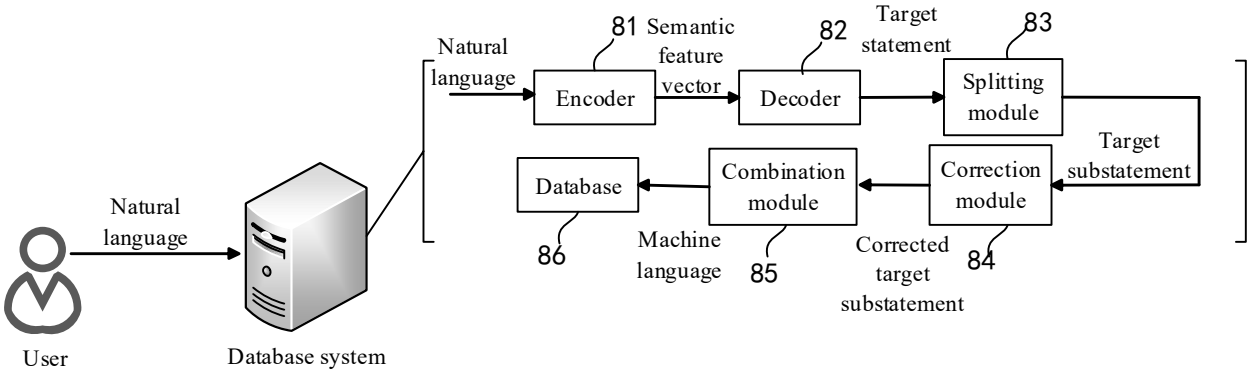

Natural language
81
Semantic feature vector
82
Target statement
83
Encoder
Decoder
Splitting module
Target substatement
Database
Combination module
Correction module
86
Machine language
85
Corrected target substatement
84
Natural language
User
Database system

FIG. 8