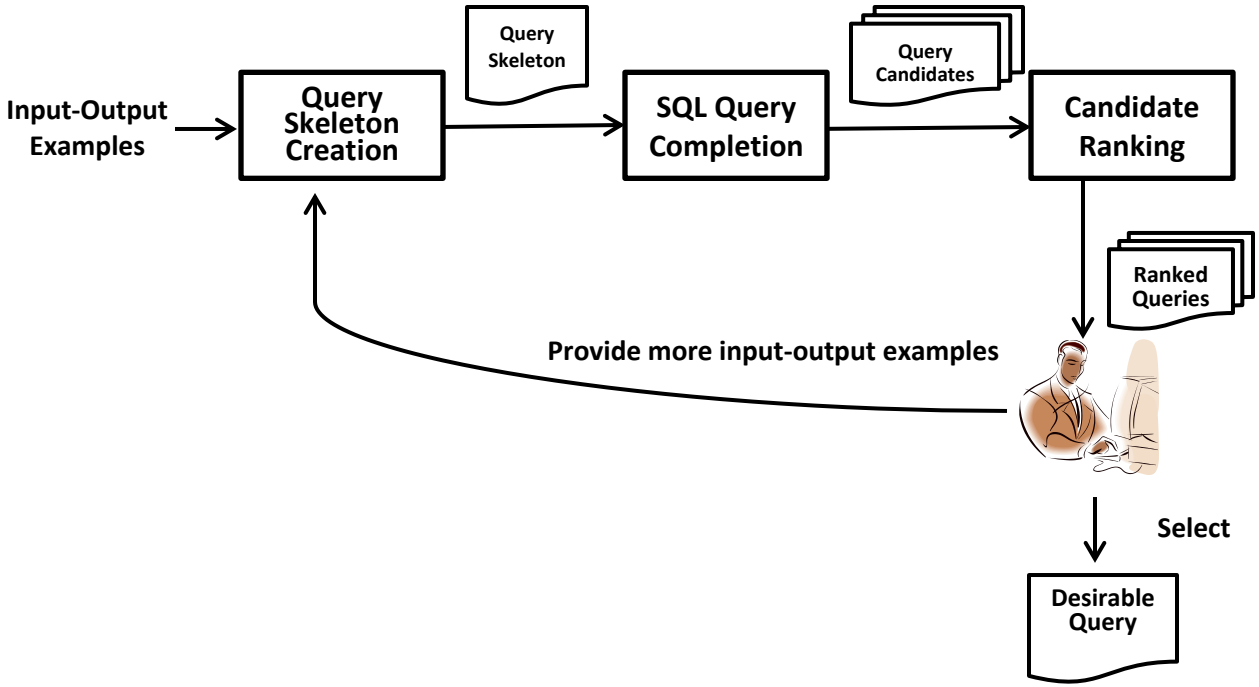

Input-Output Examples
Query Skeleton Creation
Query Skeleton
SQL Query Completion
Query Candidates
Candidate Ranking
Ranked Queries
Provide more input-output examples
Select
Desirable Query

```
select    Student.Student_name, <Aggregation>
from      student, enrolled
where     student.Student_key = enrolled.Student_key
          and  <Conditions>
group by  Student.Student_name
having    <Conditions>
```

Fgg

ff

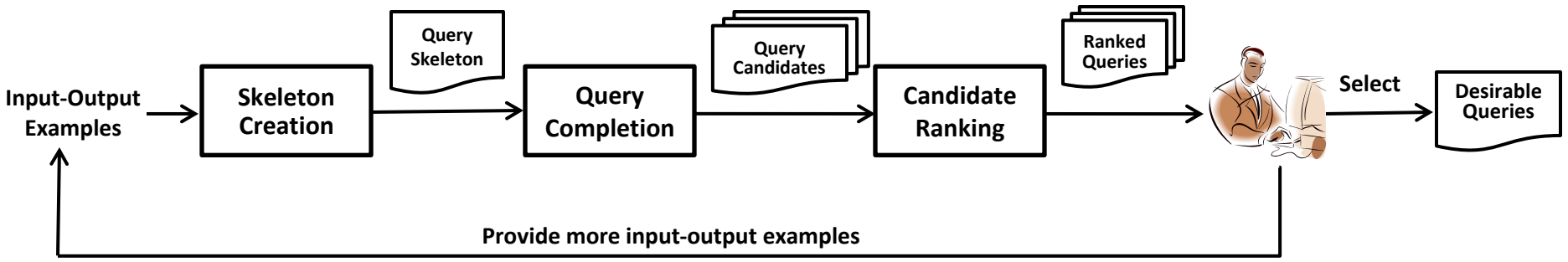
name	score
Bob	4
Dan	5
Jim	2

(a) The input table: student

name
Bob
Dan

(b) The output table

1. `select name from student where score > 3`
2. `select name from student where name = 'Bob' or name = 'Dan'`


Input-Output Examples
Skeleton Creation
Query Skeleton
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Desirable Queries
Provide more input-output examples

Column1	Column2	Column3	Column 4
101	2001	3020	01-01-11
101	2001	3002	02-01-11
101	2001	3001	03-01-11
102	2002	3002	01-01-11

Column1	Column2	Column 3
20011	2001	200131
20012	2001	200132
20013	2001	200133

Column1	Column 2
20011	Site
20012	Site
20013	Site

(a) Three input tables: T1 (top), T2 (left), and T3 (right)

```
select min(T1.Column1), T2.Column3,
       min(T1.Column4), min(T3.Column2)
from T1, T2, T3
where T1.Column2 = T2.Column2
      and T2.Column1 = T3.Column1
group by T2.Column3
```

(b) A SQL query inferred by SQLSythensizer

101	200131	01-01-11	Site
101	200132	01-01-11	Site
101	200133	01-01-11	Site

(c) The output table

student_id	name	level
1	Adam	senior
2	Bob	junior
3	Erin	senior
4	Rob	junior
5	Dan	senior
6	Peter	senior
7	Sai	senior

student_id	course_id	score
1	1	4
1	2	2
2	1	3
2	2	2
2	3	3
3	2	1
4	1	4
4	3	4
5	2	5
5	3	2
5	4	1
6	2	4
6	4	5
7	1	2
7	3	3
7	4	4

```
select student.name, max(enrolled.score)
from student, enrolled
where student.student_id = enrolled.student_id
      and student.level = 'senior'
group by student.student_id
having count(enrolled.course_id) > 3
```

name	max_score
Dan	5
Sai	5

(a) Two input tables: student (Left) and enrolled (Right)

(b) A SQL query inferred by SQLSynthesizer

(c) The output table