Demo Results Group 3:

Initial Query

$$q(R) \stackrel{\mathsf{def}}{=} \pi_{\mathrm{AC}} \big(\pi_{\mathrm{AB}} R \bowtie \pi_{\mathrm{BC}} R \cup \pi_{\mathrm{AC}} R \bowtie \pi_{\mathrm{BC}} R \big)$$

1. Bags Semantics:

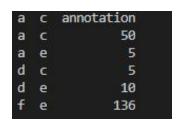
Input Table:

A	В	C	annotation
а	b	С	5
d	b	е	1
f	q	е	8

Query:

select a,b,annotation from green_paper_table0 # select b,c,annotation from green_paper_table0 # select a,t0.b,c,t0.Annotation as Annotation,t1.Annotation as Annotation1 from t0 join t1 on t0.b=t1.b # select a,c,annotation from green_paper_table0 # select b,c,annotation from green_paper_table0 # select a,b,t3.c,t3.Annotation as Annotation,t4.Annotation as Annotation1 from t3 join t4 on t3.c=t4.c # select * from t2 union all select * from t5 # select a,c,annotation from t6

Output Table:



2. Provenance Semantics:

Input Query:

Α	В	C	annotation
a	b	С	t0
d	b	е	t1
f	g	е	t2

Query:

select a,b,annotation from green_paper_table1 # select b,c,annotation from green_paper_table1 # select a,t0.b,c,t0.Annotation as Annotation,t1.Annotation as Annotation1 from t0 join t1 on t0.b=t1.b # select a,c,annotation from green_paper_table1 # select b,c,annotation from green_paper_table1 # select a,b,t3.c,t3.Annotation as Annotation,t4.Annotation as Annotation1 from t3 join t4 on t3.c=t4.c # select * from t2 union all select * from t5 # select a,c,annotation from t6

Output Table:

```
a c annotation
a c (t0 X t0) + (t0 X t0)
a e (t0 X t1)
d c (t1 X t1) + (t1 X t1) + (t1 X t2)
f e (t2 X t1) + (t2 X t2) + (t2 X t2)
```

3. Probability Semantics

Input Table:

A	В	C	annotation
a	b	С	0.57
d	b	е	0.86
f	g	е	0.47

Query:

select a,b,annotation from green_paper_table2 # select b,c,annotation from green_paper_table2 # select a,t0.b,c,t0.Annotation as Annotation,t1.Annotation as Annotation1 from t0 join t1 on t0.b=t1.b # select a,c,annotation from green_paper_table2 # select b,c,annotation from green_paper_table2 # select a,b,t3.c,t3.Annotation as Annotation,t4.Annotation as Annotation1 from t3 join t4 on t3.c=t4.c # select * from t2 union all select * from t5 # select a,c,annotation from t6

Output Table

```
a c annotation
a c 0.54
a e 0.49
d c 0.49
d e 0.96
f e 0.63
```

4. Certainty Semantics:

Input Table:

A	В	C	annotation
a	b	С	0.55
d	b	е	0.57
f	q	е	0.29

Query:

select a,b,annotation from green_paper_table3 # select b,c,annotation from green_paper_table3 # select a,t0.b,c,t0.Annotation as Annotation,t1.Annotation as Annotation1 from t0 join t1 on t0.b=t1.b # select a,c,annotation from green_paper_table3 # select b,c,annotation from green_paper_table3 # select a,b,t3.c,t3.Annotation as Annotation,t4.Annotation as Annotation1 from t3 join t4 on t3.c=t4.c # select * from t2 union all select * from t5 # select a,c,annotation from t6

Output Table:

	23	3.25	Control of the Land of the Land
	а	C	annotation
	а	C	0.3025
40	а	e	0.3135
	d	C	0.3135
	d	e	0.3249
8	f	e	0.1653

5. Standard Semantics:

Input Table:

A	В	C	annotation
a	b	С	1
d	b	е	1
f	g	е	1

Query:

select a,b,annotation from green_paper_table4 # select b,c,annotation from green_paper_table4 # select a,t0.b,c,t0.Annotation as Annotation,t1.Annotation as Annotation1 from t0 join t1 on t0.b=t1.b # select a,c,annotation from green_paper_table4 # select b,c,annotation from green_paper_table4 # select

a,b,t3.c,t3.Annotation as Annotation,t4.Annotation as Annotation1 from t3 join t4 on t3.c=t4.c # select * from t2 union all select * from t5 # select a,c,annotation from t6

Output Table:

