Relational Algebra 2

SID	PID	Cost
1	1	$10.00
1	2	$20.00
1	3	$30.00
1	4	$40.00
1	5	$50.00
2	1	$9.00
2	3	$34.00
2	5	$48.00

Catalog

PID	Pname	Color
1	Red1	Red
2	Red2	Red
3	Green1	Green
4	Blue1	Blue
5	Red3	Red

Parts

SID	Sname	Address
1	Yosemite Sham	Devil's canyon, AZ
2	Wiley E. Coyote	RR Asylum, NV
3	Elmer Fudd	Carrot Patch, MN

Suppliers

+ $\Pi_{sname}\,(\Pi_{sid}((\sigma_{color=red}Parts) \bowtie (\sigma_{cost<100}Catalog)) \bowtie Suppliers)$

Yosemite Sham
Wiley E. Coyote

· names of suppliers who sell some red parts that cost < 100

+ $(\Pi_{sname}\,((\sigma_{color=red}Parts) \bowtie (\sigma_{cost<100}Catalog)) \bowtie Suppliers)) \cap (\Pi_{sname}\,((\sigma_{color=green}Parts) \bowtie (\sigma_{cost<100}Catalog) \bowtie Suppliers))$

Yosemite Sham

· names of suppliers who sell some red parts that cost < 100 and some green parts w/ cost < 100

+ $(\Pi_{sid}((\sigma_{color=red}Parts) \bowtie (\sigma_{cost<100}Catalog) \bowtie Suppliers)) \cap (\Pi_{sid}((\sigma_{color=green}Parts) \bowtie (\sigma_{cost<100}Catalog) \bowtie Suppliers))$

1

· ids of suppliers who sell some red parts w/ cost < 100 and some green parts w/ cost < 100

+ $\Pi_{sname}\left(\left(\Pi_{sid,sname}\left((\sigma_{color=red}Parts) \bowtie (\sigma_{cost<100}Catalog) \bowtie Suppliers\right)\right) \cap \left(\Pi_{sid,sname}\left((\sigma_{color=green}Parts) \bowtie (\sigma_{cost<100}Catalog) \bowtie Suppliers\right)\right)\right)$

Yosemite Sham

- names of suppliers who sell some red parts that cost < 100 and some green parts w/ cost < 100