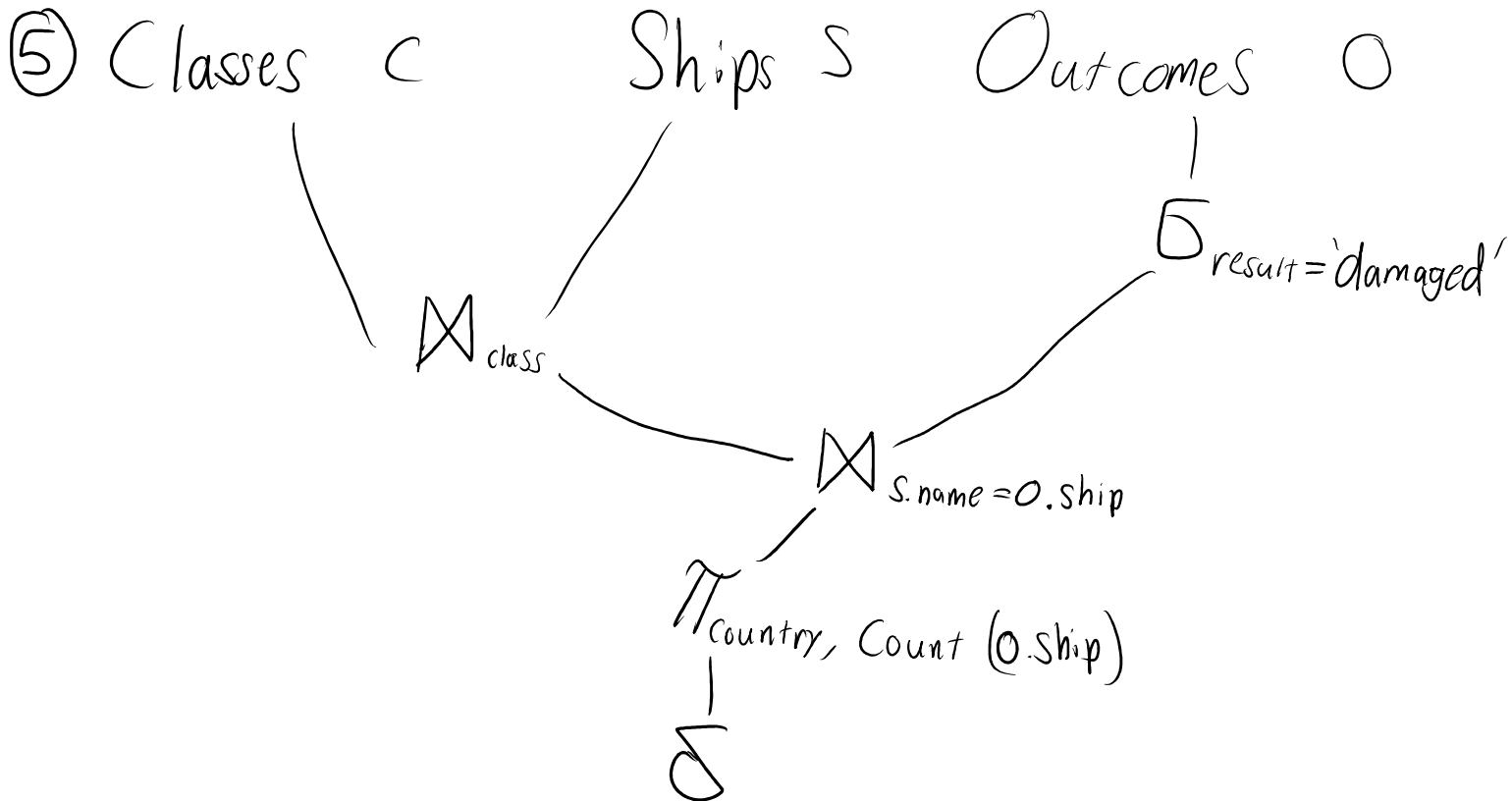
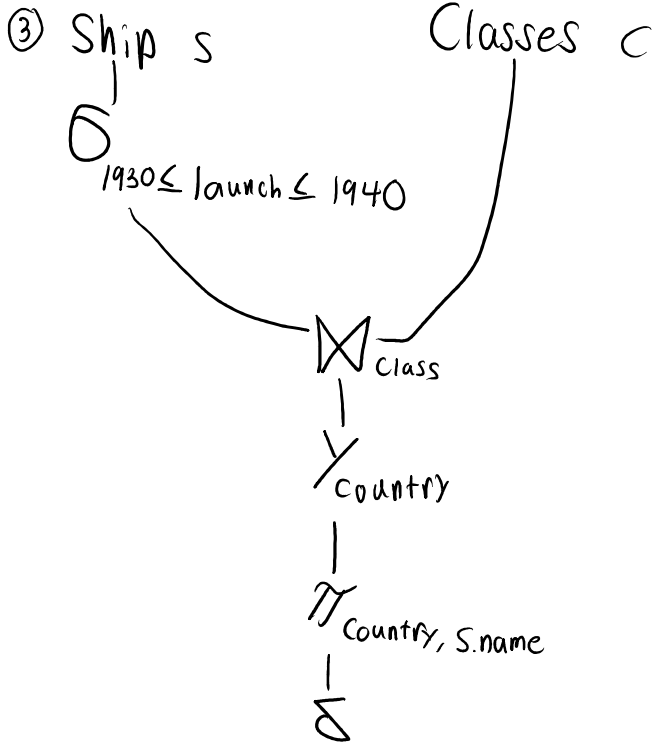
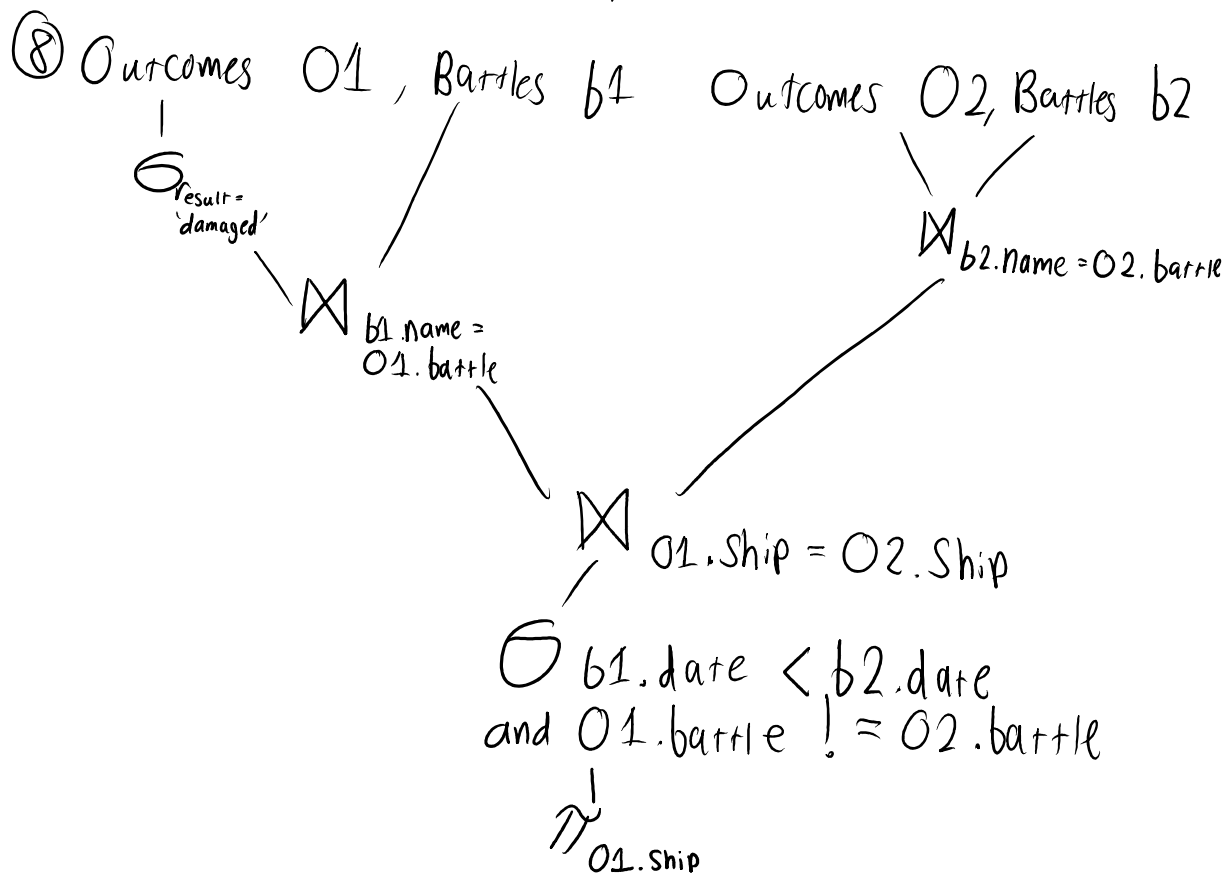
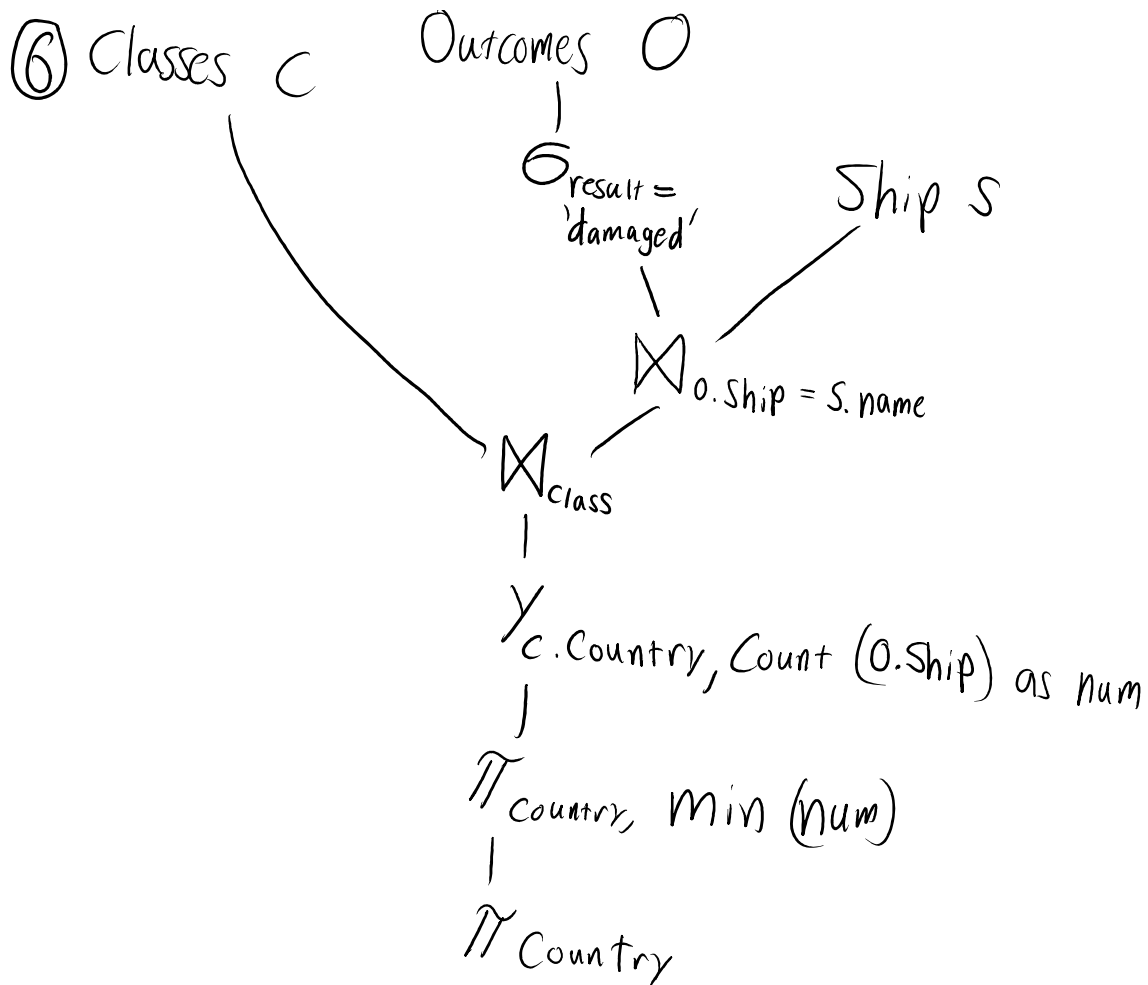


Shivneel Chand

Midterm





⑨ Classes c1

$\sigma_{type='bb'}$

$\pi_{country}$

Classes c2

$\sigma_{type='bc'}$

$\pi_{country}$

\cap

⑪

Ships

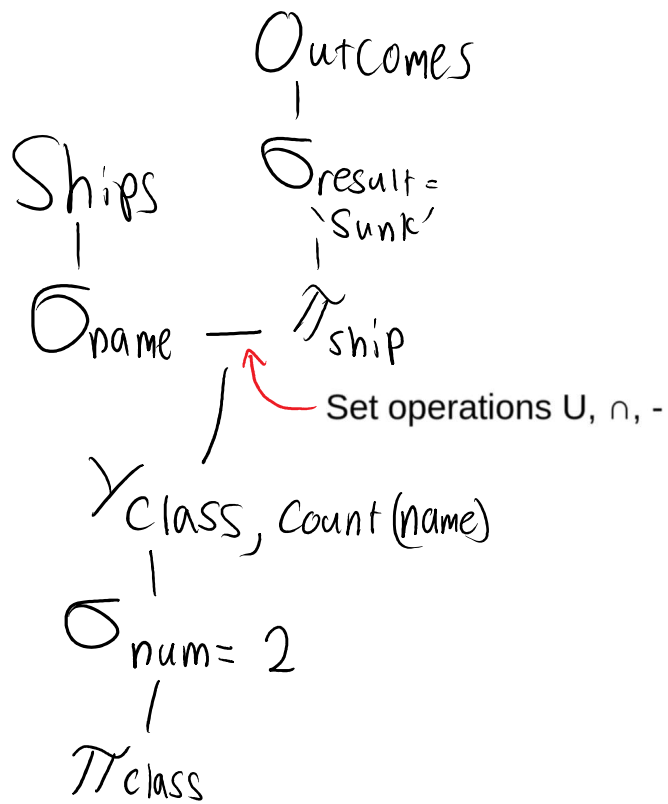
$\text{Count (name) as num}$

γ_{class}

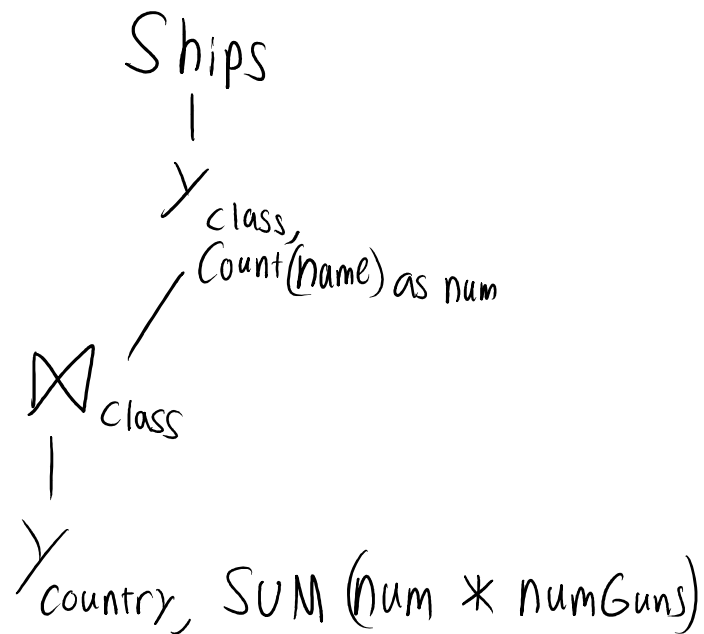
$\sigma_{num=2}$

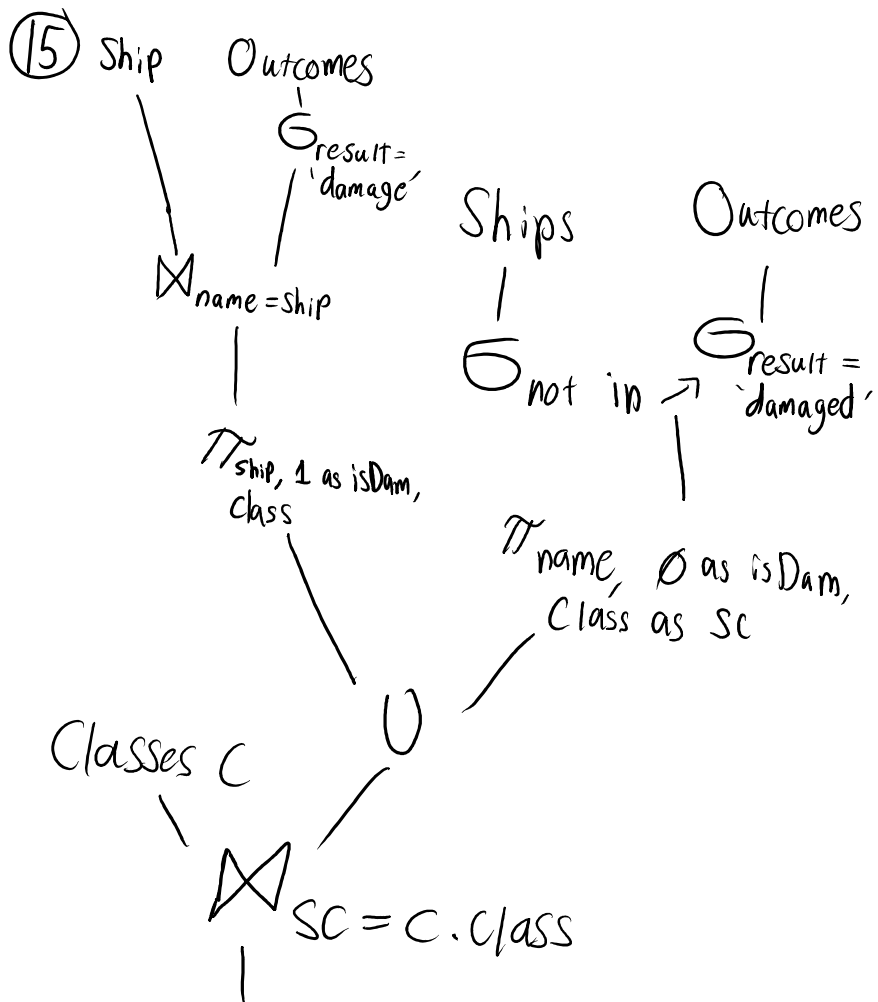
π_{class}

12



14 Classes





$\pi_{\text{country}, \text{Case}}$
 when isDam = 1
 then numGuns - 1
 else numGuns
 end as guns

$\gamma_{\text{country}, \text{SUM(guns)}}$

①7 Ships S Classes C

~~X~~ class

Y country as Cn, S.name as Sn

```
CASE
WHEN launched BETWEEN 1911 and 1920
THEN 1
ELSE 0
END as 'one',
```

```
CASE
WHEN launched BETWEEN 1921 and 1930
THEN 1
ELSE 0
END as 'two',
```

```
CASE
WHEN launched BETWEEN 1931 and 1940
THEN 1
ELSE 0
END as 'three',
```

```
CASE
WHEN launched BETWEEN 1941 and 1950
THEN 1
ELSE 0
END as 'four'
```

Y Cn, Sum(one) as '1911-1920',
 Sum(two) as '1921-1930',
 Sum(three) as '1931-1940',
 Sum(four) as '1941-1950'