Lecture Notes

Wednesday, March 27, 2019 8:16 PM

Sailors (sid , sname , rating , age)

Boats (bid , bname , color)

Reserves (sid , bid , day)

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1) Name of sailors who reserved boat 103

$\Pi_{sname}(\sigma_{bid = 103}(Reserves) \bowtie Sailors)$

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2) $S^{(name)}$ailors who reserved a red boat

$\Pi_{sname}(((\sigma_{color = 'red'}(Boats) \bowtie Reserves) \bowtie Sailors)$

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3) Name of sailors who reserved a green or red boat

$\rho_{T_1}(\sigma_{color = 'red' \text{ or } color = 'green'}(boats) \bowtie Reserves)$

$\Pi_{sname}(T_1 \bowtie Sailors)$

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4) Name of sailors who reserved a green and a red boat

$T_{green} = \Pi_{sname}(\sigma_{color = 'green'}(Boats) \bowtie Reserves \bowtie Sailors)$

$T_{red} = ''$

$T_{red} \cap T_{green}$

Exam practice

Vehicles (manufacturer , model , color , miles , vin)

Vans (manufacturer , model , passengers , cylinders , ABS , price)

SUVs (manufacturers , model , passengers , cylinders , ABS , price)

cars (manufacturers , model , cylinders , ABS , price)

a) find vin and color of all vehicles price ≥ 15000

$\Pi_{vin, color}(\sigma_{price \geq 15000}(Vans) \bowtie Vehicles)$

$\cup \Pi_{vin, color}(\sigma_{price \geq 15000}(cars) \bowtie Vehicles)$

$\cup \Pi_{vin, color}(\sigma_{price \geq 15000}(SUVs) \bowtie Vehicles)$