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Group: SD21_02

Lab 3

Task 1

1. $\pi \text{ SID } (\pi \text{ CID } (\sigma \text{ Class} = 1 \vee \text{Class} = 2 \text{ (Courses)}) \bowtie \pi \text{ SID, CID (Gradebook)})$
2. $(\pi \text{ SID } (\pi \text{ CID } (\sigma \text{ Class} = 1 \text{ (Courses)}) \bowtie \pi \text{ SID, CID (Gradebook)}) \cup \pi \text{ SID } (\sigma \text{ Surname} = \text{'Valdez' (Students)}))$
3. $(\pi \text{ SID } (\pi \text{ CID } (\sigma \text{ Class} = 1 \text{ (Courses)}) \bowtie \pi \text{ SID, CID (Gradebook)})) \cap (\pi \text{ SID } (\pi \text{ CID } (\sigma \text{ Class} = 2 \text{ (Courses)}) \bowtie \pi \text{ SID, CID (Gradebook)}))$
4. $\pi \text{ CID, SID (Gradebook)} \div \pi \text{ CID (Courses)}$
5. $\pi \text{ CID, SID (Gradebook)} \div \pi \text{ CID } (\sigma \text{ Class} = 3 \text{ (Courses)})$
6. $\pi \text{ SID, ssid (Gradebook } \bowtie \text{ Mark} < \text{smark} \wedge \text{CID} = \text{scid } (\rho \text{ ssid} \leftarrow \text{SID}, \text{scid} \leftarrow \text{CID}, \text{smark} \leftarrow \text{Mark (Gradebook)}))$
7. $\pi \text{ CID (Gradebook } \bowtie \text{ SID} \neq \text{ssid} \wedge \text{CID} = \text{scid } (\rho \text{ ssid} \leftarrow \text{SID}, \text{scid} \leftarrow \text{CID}, \text{smark} \leftarrow \text{Mark (Gradebook)}))$

Task 2

1. Names of student who got A or B in the courses of class 2
2. Names of students who got A or B in both courses of the first and the second class
3. SIDs of students who got A or C in both courses of third and fourth class
4. Names of students who got A or B in both courses of second and third class