Advanced Topics in Databases

Exercise 11

Task 1 What is artificial intelligence? How can AI Techniques be used in Data Management?

Task 2 How is Cuttlefish using AI to optimize databases?

Task 3 Why is managing operational aspects a complex tasks? How can AI be used to provide a self-management of operational aspects?

Task 4 Perform the following matrix-multiplication using the naive approach explained in the slides. Show the A table, the B table, the matrix before the group-by and after it.

\[
A = \begin{pmatrix}
  9 & 6 \\
  3 & 0 \\
\end{pmatrix}
B = \begin{pmatrix}
  1 & 2 \\
  3 & 4 \\
\end{pmatrix}
A \times B = \begin{pmatrix}
\end{pmatrix}
\]

Good Luck!