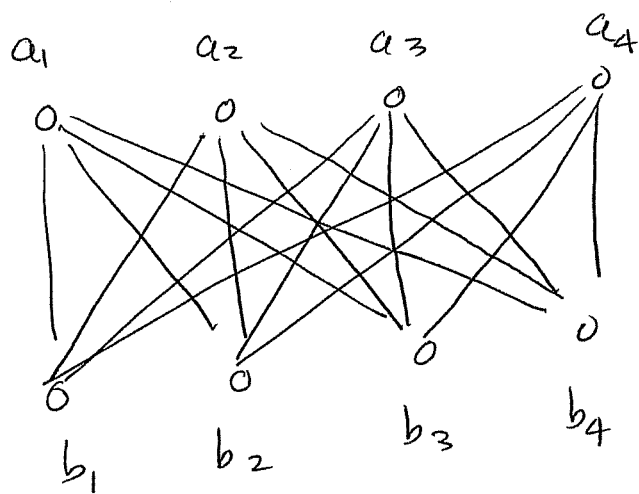


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Problem A:

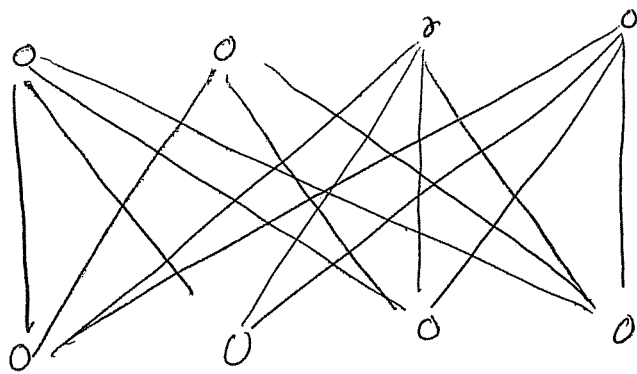
For each i , $1 \leq i \leq 4$, does G_i contain an Eulerian circuit? If not, why? If so, give such a circuit. Also, does G_i contain an Eulerian trail? If not, why? If so, give such a trail.

G_1



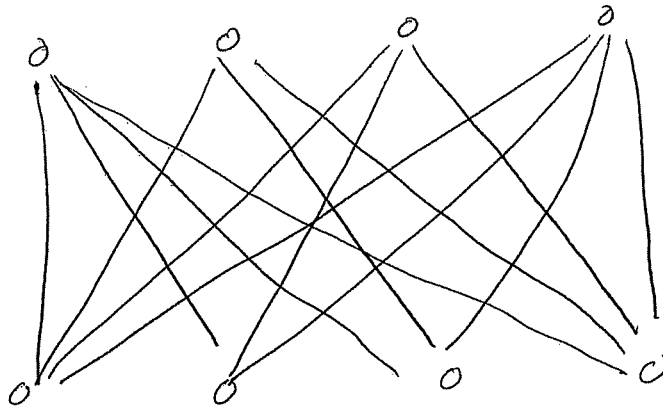
This is $K_{4,4}$.

G_2



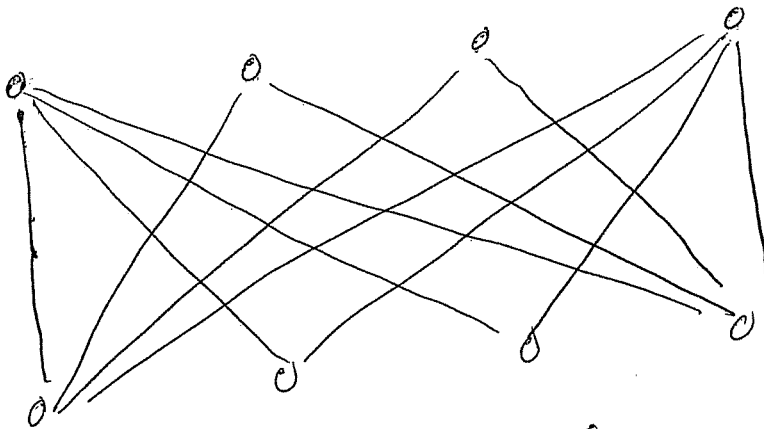
This is $K_{4,4} - \{a_2b_2\}$

G_3



This is $K_{4,4} - \{a_2b_2, a_3b_3\}$

G_4



This is $K_{4,4} - \{a_2b_2, a_2b_3, a_3b_2, a_3b_3\}$