Prove \( a \land d \) from the following premises
\[
\begin{align*}
& a \land b \\
& c \land d \\
& \neg b \land \neg c
\end{align*}
\]

Goal: \( a \land d \)

Intuition: If you look carefully at the structure of this question, it is very similar to Fitch-Example1 where you had to prove \( q \) from the premises \( p \lor q \) and \( \neg p \).

High-level Approach:
1. **AND Elimination** of \( \neg b \land \neg c \) results in \( b \) and \( c \).
2. Use **OR Elimination** to prove \( a \) and \( d \) (similar to Example-Fitch1)
   - Prove \( a \implies a \) and \( b \implies a \) and then use OR Elimination with \( a \land b \) to prove \( a \)
   - Prove \( d \implies d \) and \( c \implies d \) and then use OR Elimination with \( c \land d \) to prove \( d \)
3. Use **AND Introduction** with \( a \) and \( d \) to prove the goal \( a \land d \).

Note that again we have used Shortcuts in Steps 6 and 7 for display purposes. You CANNOT USE SHORTCUTS in problems - instead you have to plug in the proofs of \( a \) and \( d \).