Constraint: the return value should be valid as long as the function’s arguments are.

The verification of lifetime annotations in Rust is flow-insensitive.

\[
\begin{align*}
\text{fn } & \\
& \text{f}: \{x: \& \text{a str}, y: \& \text{b str}, b: \text{false} \} \rightarrow \& \text{a str} \\
& \text{1st step: } p = x; \\
& \text{2nd step: } p = y; \\
& \text{3rd step: } p = x; \quad \text{overrides previous value of p} \end{align*}
\]

error: return p;

\^ function was supposed to return data with lifetime '"a" but it is returning data with lifetime '"b"