
- **INDIVIDUAL.**

1. Modify file xyz.gold from the attached gold Project so that it recognizes strings where the last three letter Word in the string is the reverse of the first three letter word. The three letters are distinct.

Strings in the language:

- cattac
- catac
- cattttttactacaaatac
- cattttttac

2. Modify file Example2.gold from the attached gold Project so that it recognizes strings over: $\{a, b, c, 0, 1\}$ of the form ωd , where $\omega \in \{a, b, c\}^*$ and $d \in \{0, 1\}$ and:

- c cannot appear in positions multiples of 3
- d is 0 if the number of a's modulo 2 is equal to the number of b's modulo 2; d is 1 otherwise.

Hint: Add a final state, F. From any state, you can go to this state when reading the correct digit (0 or 1). If you are in the final state and you read anything, you switch to error. If you read the incorrect digit you should switch to the error state.

Strings that should be accepted:

- cabbcabab1
- cabbcabababb0

Strings that should not be accepted

- abcbcabab1
- cabbcabababb000
- cabbcabab0