# EECS 510 Final Project

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#### 1. General Description

blah blah blah testing doing this locally i guess if it compiles, it compiles testing again

#### 2. Grammar for the Language

Placeholder Grammar: S is the initial variable for the beginning of a combo

$$S \to y(Y_1) | b(B_1) | r_1(\bar{R_1}) | aA | l_2(\bar{L_2}) | (ly)(L+Y)$$

$$Y_1 \to y(Y_2) | b(B_1) | r_1(\bar{R_1}) | (yb)(Y+B)$$

$$Y_2 \to y(Y_3) | b(B_1) | r_1(\bar{R_1}) | (yb)(Y+B)$$

$$Y_3 \to b(B_1) | r_1(\bar{R_1}) | (yb)(Y+B) | (r_1yb)(\bar{R_1}+Y+B)$$

$$B_1 \to b(B_2) | r_1(\bar{R_1})$$

$$B_2 \to b(B_3) | r_1(\bar{R_1})$$

$$B_3 \to b(B_4) | r_1(\bar{R_1})$$

$$B_4 \to b(B_5) | (r_1yb)(\bar{R_1}+Y+B) | r_1(\bar{R_1})$$

$$B_5 \to b(B_5) | (r_1yb)(\bar{R_1}+Y+B) | r_1(\bar{R_1})$$

$$(\bar{R_1}+Y+B) \to (Y+B) | (Y_1) | (B_1) | (\bar{R_1})$$

$$(\bar{L_2}) \to (Y_1) | (B_1) | (\bar{R_1}) | A | R_2$$

$$(\bar{R_1}) \to (\bar{R_1}+Y+B)$$

#### 3. Automaton

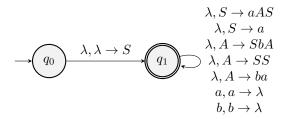


Figure 1: Automaton for language

- 4. Data Structure
- 5. Testing