1. S → BSA | BS | BA | SA |B |S | A
   A → Aa | a
   B → Bba | ba
2. S → AS | cC | bB |b
   A → aA | bB | cC | b
   B → bB |b
   C → cC | bB | b
3. S → CD | EC
   A → AA | C
   B → FB | D
   E → BA
   F → AD
   C → a
   D → b
4. S → QV | WY | WV |W
   X → QV | WV
   Y → WY | W
   Q → WX
   W → a
   V → b