Lex(string input)

i = 0;

nextChar = input[i];

state = 0;

While (nextChar != ‘\n’):

Switch (state):

Case 0:

If nextChar == ‘0’:

State = 0;

If nextChar == ‘1’:

State = 1;

Case 1:

If nextChar == ‘0’:

State = 0

If nextChar == ‘1’:

State = 2

Case 2:

If nextChar == ‘0’:

State = 3;

If nextChar == ‘1’:

State = 2;

Case 3:

If nextChar == ‘0’:

State = 0;

If nextChar == ‘1’:

State = 4;

Case 4:

Return LexError(input);

I++;

nextChar = input[i];

if state == 4: return LexError(input);

else return MakeToken(input);