

Input:

```
keywords = ["int", "if", "else", "for", "while", "return", "break", "continue", "printf"]
symbols = "+-*/=<>{}; \n"

file = open("input.txt", "r")
Code = file.read()
file.close()

token = ""
i = 0
length = len(Code)

while i < length:
    ch = Code[i]

    if ch == '':
        literal = ch
        i += 1
        while i < length and Code[i] != '':
            literal += Code[i]
            i += 1
        literal += ''
        i += 1
        print(literal, "->literal")
        continue

    if ch in symbols:
        if token in keywords:
            print(token, "->keywords")
        elif token.isdigit():
            print(token, "->constant")
        elif token != '':
            print(token, "->identifier")
        token = ""
        if ch != " " and ch != "\n":
            print(ch, "->symbols")
        i += 1
    else:
        token += ch
        i += 1

if token in keywords:
    print(token, "->keywords")
elif token.isdigit():
    print(token, "->constant")
elif token != '':
    print(token, "->identifier")
```

Output:

```
*** int ->keywords
    main ->identifier
    ( ->symbols
    ) ->symbols
    { ->symbols
    int ->keywords
    x ->identifier
    = ->symbols
    10 ->constant
    ; ->symbols
    if ->keywords
    ( ->symbols
    x ->identifier
    > ->symbols
    5 ->constant
    ) ->symbols
    { ->symbols
    printf ->keywords
    ( ->symbols
    "Hello" ->literal
    ) ->symbols
    ; ->symbols
    } ->symbols
    return ->keywords
    0 ->constant
    ; ->symbols
    } ->symbols
```