Experiment no 4

```python
KEYWORDS = ["for", "while", "if", "else", "def", "return", "in", "not", "and", "or", "print", "range",
"input"]

FUNCTIONS = ["len", "int", "str", "float", "bool", "list", "tuple", "dict", "set", "sorted", "max",
"min"]

OPERATORS = ["+", "-", "*", "/", "%", "//", "**", "+=", "-=", "*=", "/=", "%=", "==", "!=", "<", ">",
"<=", ">=", "not", "in", "and", "or"]

def parse_code(code):

    for line in code:

        parts = line.split()

        for part in parts:

            if part in KEYWORDS:

                print("Keyword: " + part)

            elif part in FUNCTIONS:

                print("Function: " + part)

            elif part in OPERATORS:

                print("Operator: " + part)

            else:

                print("Identifier: " + part)

code = [

    "def main():",

    "    a = 5",

    "    b = 7",

    "    if (a > b):",

    "        print('a is greater')",

    "    else:",

    "        print('b is greater')",

    "    print(a + b)",

    "    return 0",

]

parse_code(code)
```

Output:

```
Keyword: def
Identifier: main():
Identifier: a
Identifier: =
Identifier: 5
Identifier: b
Identifier: =
Identifier: 7
Keyword: if
Identifier: (a
Operator: >
Identifier: b):
Identifier: print('a
Identifier: is
Identifier: greater')
Identifier: else:
Identifier: print('b
Identifier: is
Identifier: greater')
Identifier: print(a
Operator: +
Identifier: b)
Keyword: return
Identifier: 0
```