

# CS 335 Semester 2023–2024-II

## Assignment 1

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### Submission

The instructions given below are for **problem 1** and exactly similar instructions can be used for **problem 2** by just changing to directory to that of **problem 2**.

### Compilation Instructions

Enter the **problem 1** directory:

```
cd 210355-assign1
cd problem1
```

Run the following commands to compile the lexer:

```
flex prob1.l
gcc prob1.c lex.yy.c -o scanner
```

This should ideally generate an executable **scanner**

### Running Instructions

Let's say the file to be tested is **testcase1.knp**. In the **problem 1** directory, run the following commands:

```
./scanner testcase1.knp
```

This should ideally print the output lexemes on terminal, a sample output for `public1.knp` is shown below:

TOKEN	COUNT	LEXEME
STRING	1	"x is greater than y"
STRING	1	"y is greater than x"
DELIMITER	2	(
DELIMITER	2	)
DELIMITER	1	,
INTEGER	1	10
INTEGER	1	20
OPERATOR	2	:=
DELIMITER	5	;
KEYWORD	1	BEGIN
KEYWORD	1	ELSE
KEYWORD	1	END
OPERATOR	1	GT
KEYWORD	1	IF
KEYWORD	1	INTEGER
IDENTIFIER	2	PRINT
KEYWORD	1	THEN
IDENTIFIER	3	x
IDENTIFIER	3	y

Errors are printed as follows:

TOKEN	COUNT	LEXEME
DELIMITER	1	,
INTEGER	1	10
OPERATOR	1	:=
DELIMITER	2	;
KEYWORD	1	BEGIN
KEYWORD	1	INTEGER
IDENTIFIER	2	x
IDENTIFIER	1	y

Error found in line no: 4  
Encountered text: !