

# CS 335 Milestone 1

March 4, 2024

## Tools Used in the Project

- **Flex** for constructing the lexer.
- **Bison** for developing the parser.
- **Graphviz** for generating visual representations of the Abstract Syntax Tree (AST).
- **Git** for version control and collaborative work.

## Compilation Instruction

- We used `lexer.l` file for lexer in flex
- The command we use is `flex lexer.l` to compile the lexer.
- We used `parser.y` file for parser in Bison
- The command we use is `bison -d parser.y` to compile the lexer.
- We used `g++ -o ast lex.yy.c parser.tab.c -lfl` to compile and combine both commands
- We used `./ast -input testinput.py -output out.dot` to output `out.dot` file for generating AST.
- We used `./string out.dot out.dot` to regenerate `out.dot` to remove string errors that came due to double quotes.
- We used `dot -o out.pdf -Tpdf out.dot` file to generate `out.pdf` for AST.
- We used all this commands in `generate_ast.sh` file to execute the whole program.
- We used `./generate_ast.sh testinput.py` to generate the AST for `testinput.py` input file.

## Execution Details

- We should run the `generate_ast.sh` script file with input file path as argument.
- The Generated Ast will be stored in `out.pdf`