Compiler Design Project

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Java Basic Feature Implemented

Primitive data types (e.g., int, long, float, double, and boolean) until milestone 3

Multidimensional arrays. Only C-style declarations supported (e.g., int a[][] = ...). Basic operators (all included till milestone 3)

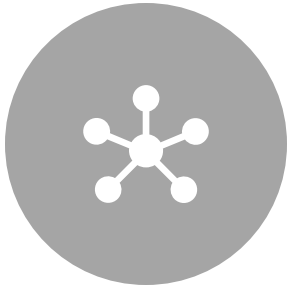
Arithmetic operators: +, -, *, /, %, ++, --
Preincrement, predecrement, postincrement, and postdecrement
Relational operators: ==, !=, >, <, >=, <=
Bitwise operators: &, |, ^,~, , , ,
Logical operators: &&, | |, !
Assignment operators: =, +=, -=, *=, /=, &=
Ternary operator

Control flow via if-else, for, and while.
Methods and method calls, including both static and non-static methods
Support for recursion
Support the library function println() for only printing the primitive types listed earlier

Support for classes and objects. For class definitions, support public and private access modifiers.

Any number of nested loops for upto 3AC and runtime.

Optional Features Supported



Multidimensional arrays
dimensions > 3

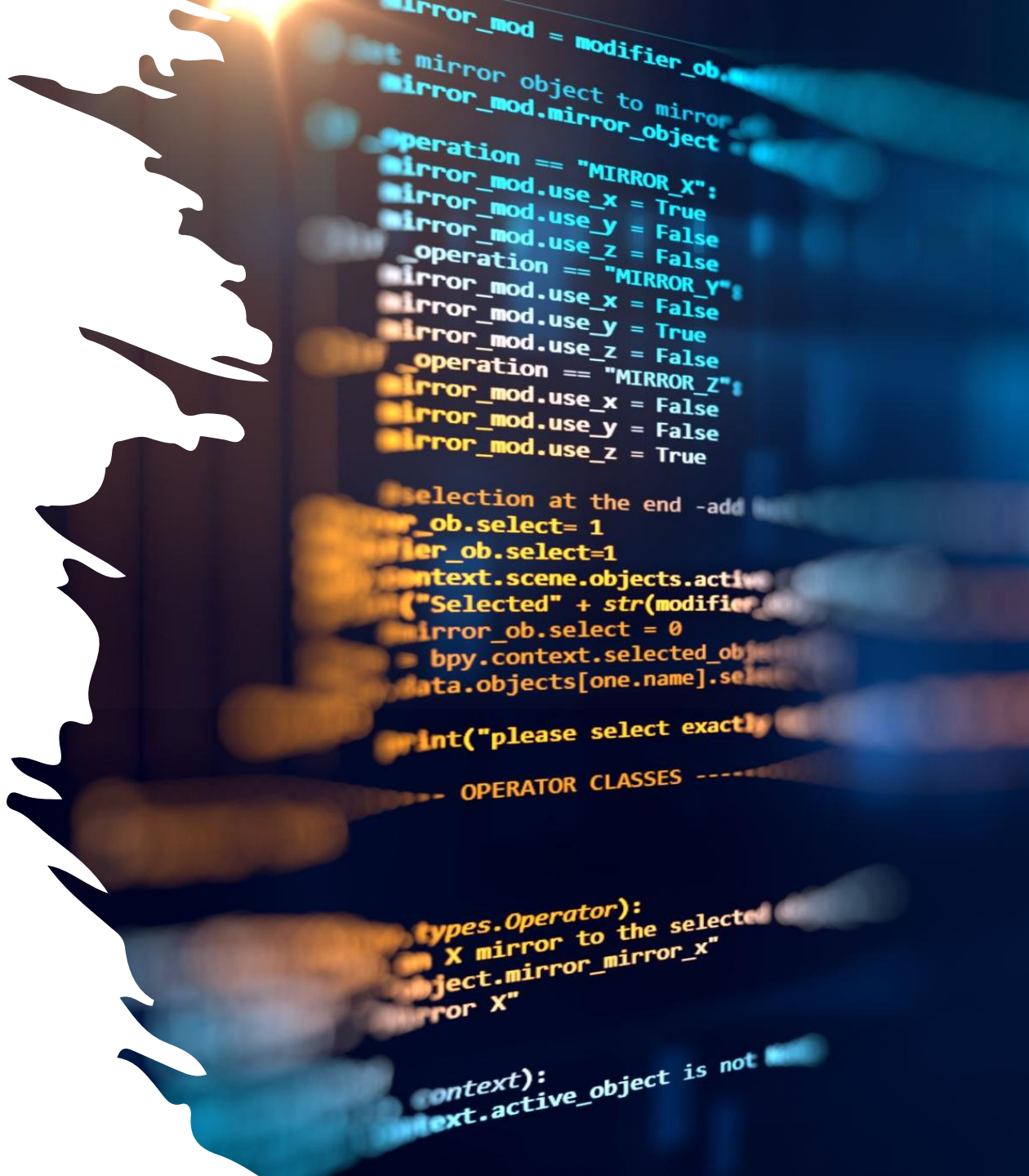
Public, Private and Static

import statements like
import java.util.*

Support for Break,
Continue, Return .

Command Line and Test Cases

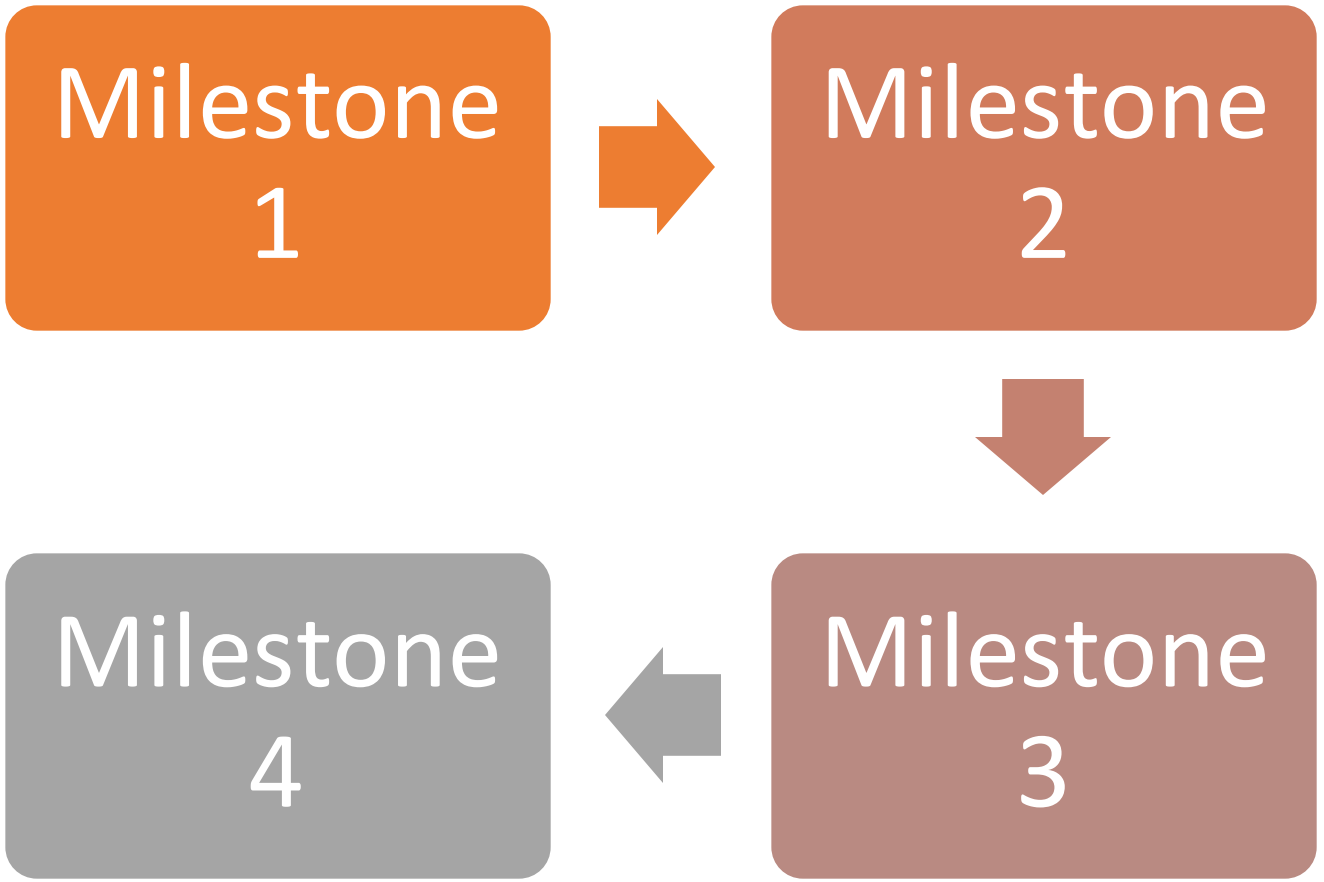
- **Command Line instructions: Test Cases**
- > python3 script.py
- **Test Cases**
- > provide the complete path to test case folder
- **Output**
- > contain a folder corresponding to test case which contain .dot file, AST png, symbol Table, 3AC and code.asm



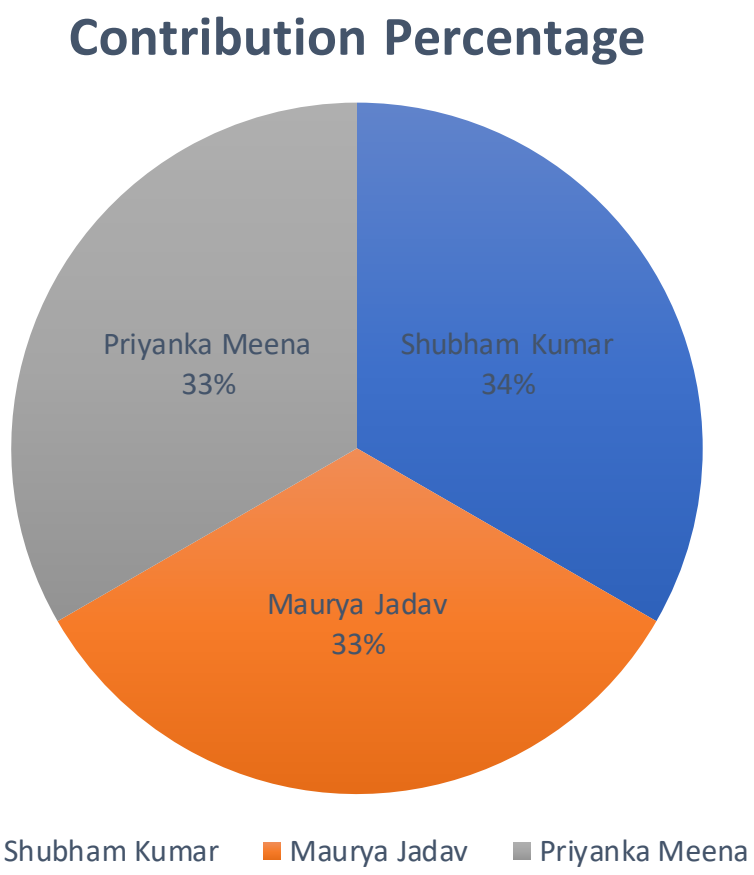
Link to the GitHub Repository

To access our private GitHub repository and view the code, please follow this link - **GitHub Repo**

Journey of project



Overall Effort Sheet for Our Group



Thank you