COD Project – Mini C-Java compiler
Group No.- 3

Group Members
RIT2009034 Ajit Abhipallav
RIT2009061 Vikesh Kumar Singh
RIT2009066 Ritesh Kumar
RIT2009064 Vibhav Srivastav
RIT2009063 Dinesh Kumar Pathak

Assignment
Design a mini CJ (C-Java) compiler that can accept any C or java program and identify it. It should detect the syntax errors in each of these input programs. It will have less features as compared to individual C and Java compiler features.

Work Done
1. Identification of C and Java Programs
2. Syntax error checking of C programs
3. Syntax error checking of Java programs

Features
1. It can differentiate between most C and Java programs.
2. It can check syntax of a given java and C program up to a large extent.

Errors Detected
1. missing parenthesis, braces and square brackets.
2. Missing semicolons.
3. All type of keyword errors.
4. Most types of operator errors.
5. Syntax errors in different control statements
6. Syntax error of variable, class, methods, and declarations.
7. Improper inclusion of headers.
8. Errors in passing parameters to the methods of functions.

Script And Languages Used
Lex and Yacc

How TO Compile and Run
1. Go to c folder and run following commands to create executable c_checker
   flex c.l
   bison -d c.y

gcc lex.yy.c c.tab.c -lfl -o c_checker

2. Go to java folder and run following commands to create executable java_checker
   flex java.l
    bison -d java.y
    gcc lex.yy.c java.tab.c -lfl -o java_checker

3. Now run build.sh outside c folder and java folder to create executable CJ
   sh build.sh

4. now test any c or java program using following command
   for c:
           ./CJ test.c < test.c
   for java:
           ./CJ test.java < test.java

It will differentiate between C and Java programs and will check the syntax error of a given java and C program.