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**Compiler Report:**

**Problem Statement : Write a mini java compiler which detects simple java programs. It should report all the syntax errors in a given program properly.(You should specify the boundries of your code).**

Solution:

We write a java test program named as “factorial.java” and we write another java program named as “syntaxanalyser.java”, which is used for finding the syntax error of other java program.

Work done :-

Cases for which our compiler detect error:

1. Package declaration

a.“name” // if missing error

b.“;” // if missing error

c. in sequence manner(if declared).

2. More than 1 package separated by space. // error message

1. Import libraries have

a.“name”

b. “;”

c. in sequncial manner.(if written).

1. Private, public ,protected class is declared.

a.next word “class “

b.class name

5. Class (Default ) is also handled.

a.have only name

1. Main function is also handled.

a. start with static

b. void type return

c. main function declared

d. “String []args “ must be passed.

7. Unknown variable name are unrecognized.

Eg. Integern, inta etc;

1. No duplicate variable are declared .

if declared , give error.

1. Every valiable name must satisfy the regular expression.

“^[a-zA-Z][a-zA-Z0-9]\*?$”

1. Variable name must nat have name of reserved key word.

abstract assert boolean break byte case catch char class const\* continue default double do else enum extends false final finally float for goto\* if implements import instanceof int interface long native new null package private protected public return short static strictfp super switch synchronized this throw throws transient true try void volatile while

1. Find any redeclared variable..
2. Alculate matching parenthesis.
3. If “{“ parenthesis are less,… warning to add “}”
4. If “}” parenthesis are more .. warning to remove unused “}”.