**Error Detection and Correction**

**Error 1:**

In method is\_num\_constant , when more than one digit number is given as input, it shows an exception error. i.e., 8 will work but 88 will throw an exception.

**Logical Error:**

**if**(Character.*isDigit*(str.charAt(**i+1**)))

**Corrected Code:**

**if**(Character.*isDigit*(str.charAt(**i**)))

This code will accept all valid numbers of any no.of digits.

**Error 2:**

In method is\_str\_constant , the return value should be false when the string is not surrounded with “. i.e., “token is not a valid string since it doesn’t end with “ (but begins with “), but this method will return the value as true.

**Logical Error:**

**static** **boolean** is\_str\_constant(String str)

{

**int** i=1;

**if** ( str.charAt(0) =='"')

{ **while** (i < str.length() && str.charAt(0)!='\0')

{ **if**(str.charAt(i)=='"')

**return** **true**; /\* meet the second '"' \*/

**else**

i++;

} /\* end WHILE \*/

**return** **true**;

}

**else**

**return** **false**; /\* other return FALSE \*/

}

**Corrected Code:**

**static** **boolean** is\_str\_constant(String str)

{

**int** i=1;

**if** ( str.charAt(0) =='"')

{ **while** (i < str.length() && str.charAt(0)!='\0')

{ **if**(str.charAt(i)=='"')

**return** **true**; /\* meet the second '"' \*/

**else**

i++;

} /\* end WHILE \*/

**return** **false**;

}

**else**

**return** **false**; /\* other return FALSE \*/

}