

Report

These are some of the bugs and corrections found during the Coverage Testing:

1.) Method: get_token

- Fault:
int i=0,j;
- Correction: comment it out such as
//~~int~~ i=0,j;

2.) Method: get_token

- Fault:
if(ch =='"')id=2; /* prepare for string */
if(ch ==59)id=1; /* prepare for comment */
- Correction: swapped the Id
if(ch =='"')id=1; /* prepare for string */
if(ch ==59)id=2; /* prepare for comment */

3.) Method: unget_char

- Fault:
Return 0
- Correction: should return type char
return (char)ch;

4.) Method Is_char_constant

- Fault:
if (str.length() >= 2 ||
- Correction: the length should be 2 and changed to AND for enforcement
if (str.length() == 2 &&

5.) Method: is_num_constant

- Fault:
if(Character.isDigit(str.charAt(i+1)))
- Correction: There no need to add again
if(Character.isDigit(str.charAt(i)))

6.) Is_identifier

- Fault:
} /* end WHILE */
return false; //

```

    }
    else
        return true; /

```

- Correction: It is returning the wrong true and false statement so flip them around

```

    }    /* end WHILE */
    return true; //
}
else
    return false;

```

7.) Method print_spec_symbol

- Fault:

```
if (str.equals(""))
```
- Correction: This is printing lparen so that mean it should be (symbol

```
if (str.equals("("))
```

8.) Method Main

- Fault

```
...else{
    System.out.print("Error! Please give the token stream\n");
}
```
- Correction: After giving the error message, it should not continue and exit instead

```
{
    System.out.print("Error! Please give the token stream\n");
    return;//Exit here!
}
```

9.) Method is_spec_symbol

- Fault

```
if (c == '/')
{
    return true;
}
```
- Correction: This is not a special Symbol and should be removed

10.) Method is_spec_symbol

- Fault: ' quote symbol was not included
- Correction:

```

if(c == '"')// Added here
{
    return true;
}

```

```
}
```

11. Not sure if this is correct, this entire method was giving me the wrong Coverage and true and false was returning incorrectly. It was also failing to correct itself so I changed the entire method to check first if string is empty before processing:

```
static boolean is_str_constant(String str) //
{
    if (str.isEmpty() || str.charAt(0) != '"')
        return false; // Fail

    for (int i = 1; i < str.length(); i++) {
        if (str.charAt(i) == '"') {
            // Only valid if " is the LAST character
            return (i == str.length() - 1);
        }
    }
    return false; // No closing "
}
```