CMPT 432 - Spring 2019 - Dr. Labouseur

Parser Test Case Documentation

Brandon Litwin
Brandon.Litwin1@Marist.edu

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1 Valid Cases

1.1 Case 1

```
{
    int a
    a = 1
    if(1 == 1){
        print("nums")
    }
} $
```

1.2 Case 2

```
{
    while (a != 5) {
        a = 1 + a
        print(a)
    }
    print(3 + a)
    print(s)
} $
```

1.3 Case 3

```
{{{}}}$
```

1.4 Case 4

```
{print(a)}$
```

1.5 Case 5

```
{
  print("hello")
  int a
  a = 3
}$
{
  int b
  b = false
}$
```

1.6 Case 6

```
{
    boolean a
    a = false
    print((a == true))
    print((true == a))
    if (a == false) {
        a = true
    }
    print(a)
}$
```

1.7 Case 7

```
{
    int a
    a = 1
    int b
    b = 1
    b = 1 + a
    while (2 + a != 3 + b) {
        a = 1 + a
        print("int a is ")
        print(a)
        print(" ")
    }
    print("int b is ")
    print(b)
}$
```

2 Invalid Cases

```
{4 + 2}$
```

"Parse Error: Expected T R BRACE and found T DIGIT at line 1 index 1"
Throws error at 4 because it is an IntExpr and not a valid statement list.

```
{
int a
a == 2
}$
```

"Parse Error: Expected T R BRACE and found T EQUALS at line 3 index 2" Throws error at a == 2 because it is in invalid expression. BooleanExpr must be inside ( ).

```
{
    s = "strb"
    print(s)

    if (a != ) {
        print("true")
    }
}$
```

"Parse Error: Expected T ID and found T R PAREN at line 5 index 13" Throws error at a != because it is an unfinished BooleanExpr.

```
{
    int a
    a = 1 +
    print(a)
}$
```

Parse Error: Expected T ID and found T PRINT at line 4 index 4 Throws error at a = 1 + because it an unfinished IntExpr.