Test Files

Each .next test file is followed by the output that would be found in its reference file. The last three test files have no reference output because they are meant to be run manually.

```
#CleanTests.pl by Danny
#!/usr/bin/perl -w

@testFileDirs = <Tests/*>;

foreach $testFileDir(@testFileDirs) {
    system("rm ". $testFileDir . "/Next" . '\$' . "Type.class");

    @testFileDir = <$testFileDir/*>;
    foreach $testFile(@testFileDir) {
        if(!($testFile =~ /(\.next)$/i) && !($testFile =~ /reference/i)) {
            system("rm " . $testFile);
        }
    }
}
```

```
#RunTests.pl by Danny
#!/usr/bin/perl -w

use File::Compare;
use FileHandle;

system("perl CleanTests.pl");

my @failedTestFiles = ();

@testFileDirs = <Tests/*>;

foreach $testFileDir(@testFileDirs) {
    @testFiles = <$testFileDir/*>;
    foreach $testFile(@testFiles) {
        print $testFile . "\n";

        if($testFile =~ /\.next$/i) {
            #do the compilation
            if(system("./next < " . $testFile . " > " . $testFileDir .
"/Next.java") == 0) {
                #do java compilation
                if(system("javac " . $testFileDir . "/Next.java") == 0) {
                    system("java -classpath " . $testFileDir . " Next > " .
$testFileDir . "/output");
                }
            }

            #compare output with reference
            #if comparison returns 0 they are the same, otherwise they are
not
            #write to log file of ones that are not
            if(File::Compare::compare_text($testFileDir . "/output",
$testFileDir . "/reference")) {
                push(@failedTestFiles, $testFileDir);
            }
        }
    }
}


#write to log file
$fh = FileHandle -> new();
if($fh -> open("> Tests/FailedTests.txt")) {
    foreach $file(@failedTestFiles) {
        $fh -> print($file . "\n");
    }
}
```

```
/*AndOrOperators.next by Danny*/
int stop = 0;
string myString = "go go go";

item myItem1 {(int size = 50)}
item myItem2 {(int anotherSize = 100)}
item myItem3 {(int what = 1000)}

character myCharacter1 {(int life = 1), (myItem1)}
character myCharacter2 {(int id = 123), (myItem2)}
character myCharacter3 {(int health = 4), (myItem3)}

location place {(int count = 10), (myItem1, myItem2), (myCharacter1,
myCharacter2, myCharacter3)}

start place end (stop == 11) {
    if (11 == 11 and place.count == 10 and myItem1.size != 51) then {
        output "True";
    }
    else {
        output "Error";
    }

    if(11 != 11 or place.count == 11 or myItem1.size != 51) then {
        output "True";
    }
    else {
        output "Error";
    }

    if((11 != 11 or place.count == 11 or myItem1.size != 51) and (21 < 1))
then {
        output "Error";
    }
    else {
        output "True";
    }

    stop = 11;
}
```

```
True
True
True
```

```
/*ArithmeticOperators.next by Danny*/
int stop = 0;
string myString = "go go go";

item myItem1 {(int size = 50)}
item myItem2 {(int anotherSize = 100)}
item myItem3 {(int what = 1000)}

character myCharacter1 {(int life = 1), (myItem1)}
character myCharacter2 {(int id = 123), (myItem2)}
character myCharacter3 {(int health = 4), (myItem3)}

location place {(int count = 10), (myItem1, myItem2), (myCharacter1,
myCharacter2, myCharacter3)}

start place end (stop == 11) {
    stop = stop - 11;
    stop = stop + 1;
    stop = stop * 3 + 2;
    stop = stop / 4;
    stop = (stop * 9 / 3 + 1 - 4);
    output stop;

    stop = 11;
}
```

```
/*CharacterDeclarations.next by Ernesto */

item the_greatest_sword_ever {()}
item rubberDuckie {(string squeak = "squeak")}
item columbiaBinder {(int size = 50)}


character noone{(),()}
character me {(),(rubberDuckie)}
character you {(int life = 50),(rubberDuckie)}
character her {(int life),(rubberDuckie)}
character him {(int life, string name="him"),(rubberDuckie, columbiaBinder,
the_greatest_sword_ever)}
character someone{(string name),()}

int count = 1;


location here {(int sizex = 10000, int sizey=9283), (columbiaBinder), ()}

start here end (count == 0){

      output you.life;
      output her.life;
      output him.life;
      output him.name;
      output someone.name;

      count = count - 1;



}
```

50
0
0
him

```
/*ComparisonOperators.next by Danny*/
int stop = 0;
string myString = "go go go";

item myItem1 {(int size = 50)}
item myItem2 {(int anotherSize = 100)}
item myItem3 {(int what = 1000)}

character myCharacter1 {(int life = 1), (myItem1)}
character myCharacter2 {(int id = 123), (myItem2)}
character myCharacter3 {(int health = 4), (myItem3)}

location place {(int count = 10), (myItem1, myItem2), (myCharacter1,
myCharacter2, myCharacter3)}

start place end (stop == 11) {
    if (1 < 2) then {
        output "1 is less than 2";
    }
    else {
        output "comparison problem";
    }

    if (1 > 2) then {
        output "1 is greater than 2";
    }
    else {
        output "1 is less than 2";
    }

    if (1 <= 1) then {
        output "1 is less or equal to 1";
    }
    else {
        output "1 is greater than 1";
    }

    if (1 <= 2) then {
        output "1 is less than or equal to 2";
    }
    else {
        output "2 is less than 1";
    }

    if (1 >= 2) then {
        output "1 is greater than or equal to 2";
    }
    else {
        output "1 is less than 2";
    }

    if (1 >= 1) then {
        output "1 is greater than or equal to 1";
    }
    else {
        output "1 is less than 2";
    }

    if (1 == 1) then {
        output "1 is equal to 1";
    }
    else {
        output "1 is not equal to 1";
    }
```

```
    if (1 != 1) then {
        output "1 not equal to 1";
    }
    else {
        output "1 is equal to 1";
    }

    if ("hi" == "hi") then {
       output "hi is equal to hi";
    }
    else {
        output "hi is not equal to hi";
    }

    if ("hi" != "hi") then {
       output "hi not equal to hi";
    }
    else {
        output "hi is equal to hi";
    }

    stop = 11;
}
```

```
1 is less than 2
1 is less than 2
1 is less or equal to 1
1 is less than or equal to 2
1 is less than 2
1 is greater than or equal to 1
1 is equal to 1
1 is equal to 1
hi is equal to hi
hi is equal to hi
```

```
/*CompoundStatements.next by Morgan*/
int stop = 0;
string myString = "go go go";

item myItem {(int size = 50)}

character myCharacter {(int life = 1), (myItem)}

location place {(int count = 10), (myItem), (myCharacter)}

start place end (place.count == 1) {
    {
      myString = "stop stop stop";
      myCharacter.life = 10;
      stop = myCharacter.life - 9;

    }

    if (myString == "stop stop stop") then {
       output "correct";
    }
    else {
        output "incorrect";
    }

    {
      if (myCharacter.life > 1) then {
            output "correct";
      }
      else {
            output "incorrect";
        }


        place.count = stop;
    }


}
```

```
correct
correct
```

```
/*DotOperator.next by Danny*/
int stop = 0;
string myString = "go go go";

item myItem1 {(int size = 50)}
item myItem2 {(int anotherSize = 100)}
item myItem3 {(int what = 1000)}

character myCharacter1 {(int life = 1), (myItem1)}
character myCharacter2 {(int id = 123), (myItem2)}
character myCharacter3 {(int health = 4), (myItem3)}

location place {(int count = 10), (myItem1, myItem2), (myCharacter1,
myCharacter2, myCharacter3)}

start place end (stop == 1) {
      if(exists place.myItem1) then {
          output myItem2.anotherSize;
      }
      else {
          output myItem1.size;
      }

    output myItem3.what;

    stop = 1;
}
```

100
1000

```
/*ExistsOperator.next by Danny*/
int stop = 0;
string myString = "go go go";

item myItem1 {(int size = 50)}
item myItem2 {(int anotherSize = 100)}
item myItem3 {(int what = 1000)}

character myCharacter1 {(int life = 1), (myItem1)}
character myCharacter2 {(int id = 123), (myItem2)}
character myCharacter3 {(int health = 4), (myItem3)}

location place {(int count = 10), (myItem1, myItem2), (myCharacter1,
myCharacter2, myCharacter3)}

start place end (stop == 1) {
      if(exists place.myItem1 == 1) then {
          output "Yes!";
      }
      else {
          output "Something went wrong";
      }

      if(exists place.myCharacter2) then {
          output "Yes!!";
      }
      else {
           output "No :(";
        }

      if (exists myCharacter1.myItem2) then {
          output "Yes";
        }
      else {
           output "Nope";
      }

      if (exists myCharacter3.myItem3) then {
          output "yay";
        }
      else {
           output "oops";
      }

    stop = 1;
}
```

Yes!
Yes!!
Nope
yay

```
/*GrabDrop.next by Ernesto*/

item nothingItem {()}
item the_greatest_sword_ever {(int damage = 100000000)}
item rubberDuckie {(string squeak = "squeak")}
item columbiaBinder {(int size = 50)}
int count = 8;

character xiaowei_the_greatest_man_ever {(int life = 1, int level=99999,
string haha="hahahahaha"), (the_greatest_sword_ever, rubberDuckie)}

location where_is_this_place {(int sizex = 10000, int sizey=9283),
(columbiaBinder, rubberDuckie), (xiaowei_the_greatest_man_ever)}

start where_is_this_place end (count == -1) {


      count = count - 1;
      output count;
      if (count == 6) then drop xiaowei_the_greatest_man_ever.nothingItem;
      else if (count == 5) then grab
xiaowei_the_greatest_man_ever.nothingItem;
      else if (count == 4) then grab
xiaowei_the_greatest_man_ever.columbiaBinder;
      else if (count == 3) then drop
xiaowei_the_greatest_man_ever.the_greatest_sword_ever;
      else if (count == 2) then drop
xiaowei_the_greatest_man_ever.rubberDuckie;
      else if (count == 1) then grab
xiaowei_the_greatest_man_ever.rubberDuckie;
      else ;

      if  (exists xiaowei_the_greatest_man_ever.columbiaBinder) then
            output "binder exists in Xiao";
      else output "Binder does not exists in Xiao";

      if  (exists where_is_this_place.columbiaBinder) then
            output "binder exists in place";
      else output "Binder does not exists in place";

      if  (exists xiaowei_the_greatest_man_ever.rubberDuckie) then
            output "duckie exists in Xiao";
      else output "duckie does not exists in Xiao";

      if  (exists where_is_this_place.rubberDuckie) then
            output "duckie exists in place";
      else output "duckie does not exists in place";

      if  (exists xiaowei_the_greatest_man_ever.the_greatest_sword_ever) then
            output "the_greatest_sword_ever exists in Xiao";
      else output "the_greatest_sword_ever does not exists in Xiao";

      if  (exists where_is_this_place.the_greatest_sword_ever) then
            output "the_greatest_sword_ever exists in place";
      else output "the_greatest_sword_ever does not exists in place";


}
```

```
7
Binder does not exists in Xiao
binder exists in place
duckie exists in Xiao
duckie exists in place
the_greatest_sword_ever exists in Xiao
the_greatest_sword_ever does not exists in place
6
Error: The character does not have the item you attempted to drop
Binder does not exists in Xiao
binder exists in place
duckie exists in Xiao
duckie exists in place
the_greatest_sword_ever exists in Xiao
the_greatest_sword_ever does not exists in place
5
Error: The item you attempted to grab is not in this location
Binder does not exists in Xiao
binder exists in place
duckie exists in Xiao
duckie exists in place
the_greatest_sword_ever exists in Xiao
the_greatest_sword_ever does not exists in place
4
binder exists in Xiao
Binder does not exists in place
duckie exists in Xiao
duckie exists in place
the_greatest_sword_ever exists in Xiao
the_greatest_sword_ever does not exists in place
3
binder exists in Xiao
Binder does not exists in place
duckie exists in Xiao
duckie exists in place
the_greatest_sword_ever does not exists in Xiao
the_greatest_sword_ever exists in place
2
binder exists in Xiao
Binder does not exists in place
duckie does not exists in Xiao
duckie exists in place
the_greatest_sword_ever does not exists in Xiao
the_greatest_sword_ever exists in place
1
binder exists in Xiao
Binder does not exists in place
duckie exists in Xiao
duckie does not exists in place
the_greatest_sword_ever does not exists in Xiao
the_greatest_sword_ever exists in place
0
binder exists in Xiao
Binder does not exists in place
duckie exists in Xiao
duckie does not exists in place
the_greatest_sword_ever does not exists in Xiao
the_greatest_sword_ever exists in place
```

```
/* IntegerDeclarations.next by Ernesto */
location here {(int sizex = 10000, int sizey=9283), (), ()}
int x;
int y = x;
int z = y + 2;
int m = 8 + z;
int n = m + z;
int i = here.sizex;

int count = 1;



start here end (count == 0){


      output x;
      output y;
      output z;
      output m;
      output n;
      output i;
      count = count - 1;
}
```

0
0
2
10
12
10000

```
/*ItemDeclarations.next by Ernesto */
item the_greatest_sword_ever {()}
item rubberDuckie {(string squeak = "squeak")}
item shirt5{(string size = "medium", int number = 20, string color = "red",
int arm = 10)}
item columbiaBinder {(int size = 50)}
item ColumbiaBinder {(int size = 30)}
int count = 1;


location here {(int sizex = 10000, int sizey=9283), (columbiaBinder), ()}

start here end (count == 0){
      output rubberDuckie.squeak;
      output shirt5.size;
      output shirt5.number;
      output shirt5.color;
      output shirt5.arm;
      output columbiaBinder.size;
      output ColumbiaBinder.size;
      count = count - 1;



}
```

squeak
medium
20
red
10
50
30

```
/*Kill.next by Ernesto, Checks if kill removes from all lists*/

item the_greatest_sword_ever {(int damage = 100000000)}
item rubberDuckie {(string squeak = "squeak")}
item columbiaBinder {(int size = 50)}
int count = 4;

character xiaowei_the_greatest_man_ever {(int life = 1, int level=99999,
string haha="hahahahaha"),

(the_greatest_sword_ever, rubberDuckie, columbiaBinder)}

location where_is_this_place {(int sizex = 10000, int sizey=9283),
(columbiaBinder, rubberDuckie),

(xiaowei_the_greatest_man_ever)}

start where_is_this_place end (count == -1) {


      count = count - 1;
      output count;
      if (count == 2) then kill columbiaBinder;
      else if (count == 1) then kill xiaowei_the_greatest_man_ever;
      else ;

      if  (exists xiaowei_the_greatest_man_ever.columbiaBinder) then
            output "binder exists in Xiao";
      else output "Binder no longer exists in Xiao";

      if  (exists where_is_this_place.columbiaBinder) then
            output "binder exists in place";
      else output "Binder no longer exists in place";

      if  (exists xiaowei_the_greatest_man_ever.rubberDuckie) then
            output "duckie exists in Xiao";
      else output "duckie no longer exists in Xiao";

      if  (exists where_is_this_place.rubberDuckie) then
            output "duckie exists in place";
      else output "duckie no longer exists in place";

      if  (exists where_is_this_place.xiaowei_the_greatest_man_ever) then
            output "Xiao is alive";
      else output "Xiao is dead!!";


}
```

```
3
binder exists in Xiao
binder exists in place
duckie exists in Xiao
duckie exists in place
Xiao is alive
2
Binder no longer exists in Xiao
Binder no longer exists in place
duckie exists in Xiao
duckie exists in place
Xiao is alive
1
Binder no longer exists in Xiao
Binder no longer exists in place
duckie no longer exists in Xiao
duckie exists in place
Xiao is dead!!
0
Binder no longer exists in Xiao
Binder no longer exists in place
duckie no longer exists in Xiao
duckie exists in place
Xiao is dead!!
```

```
/*LocationDeclarations.next by Ernesto, Testing naming conventions. Forms of
declaration of Locations

*/

item the_greatest_sword_ever {()}
item rubberDuckie {(string squeak = "squeak")}
item columbiaBinder {(int size = 50)}


character noone{(),()}
character me {(),(rubberDuckie)}
character you {(int life = 50),(rubberDuckie)}
character her {(int life),(rubberDuckie)}
character him {(int life, string name="him"),(rubberDuckie, columbiaBinder,
the_greatest_sword_ever)}
character someone{(string name),()}

int count = 1;


location limbo {(),(),()}
location empty {(string ew6 = "not much"),( rubberDuckie,
columbiaBinder),(me,you,her)}
location cool{(), (the_greatest_sword_ever), (him, someone,her)}
location COOL{(int look = 100, int size = 5, string name =
"COOL"),(),(her,him,me,someone,you)}

location here {(int sizex = 10000, int sizey=9283), (columbiaBinder), ()}

start here end (count == 0){

      output empty.ew6;
      output COOL.look;
      output COOL.size;
      output COOL.name;
      output here.sizex;
      output here.sizey;

      count = count - 1;



}
start limbo end (0);
start empty end (0);
start cool end (1);
start COOL end (1);
```

not much
100
5
COOL
10000
9283

```
/*OutputStmt.Next by Pri: Xiao Sec:Ernesto */

item i1 {()}
item i2 {(string squeak = "squeak")}
item i3 {(int size = 50)}


character c1 {(int life = 10),()}
character c2 {(int life = 10),()}

int count = 1;

location l1 {(int sizex = 10000, int sizey=9283), (i1), (c1)}
location l2 {(),(),()}


start l1 end (count == -1 or c1.life == 0){

      output "output test";
      output count;
      output 777777;
      output count+count;
      output count-count;
      output count*count;
      output count/1;
      output count=count;
      output count or count;
      output count and count;
      output not count;
      output l1.sizex;
      output l1.sizex = 100;
      output exists l2.i1;
      output -count;
      output count < count+1;
      output count > count+1;
      output count >= count+1;
      output count <= count+1;
      output count == count;
      output count != count;
      output count = count - 1;

}

start l2 end (count ==0);
```

```
output test
1
777777
2
0
1
1
1
1
1
0
10000
100
0
-1
1
0
0
1
1
0
0
output test
0
777777
0
0
0
0
0
0
0
1
100
100
0
0
1
0
0
1
1
0
-1
```

```
/*ShowAfterKill.next by Ernesto, Need to check if hide and show are being
used on character or item*/

item the_greatest_sword_ever {(int damage = 100000000)}
item rubberDuckie {(string squeak = "squeak")}
item columbiaBinder {(int size = 50)}
int count = 4;
string hi = "Hello World";
character xiaowei_the_greatest_man_ever {(int life = 1, int level=99999,
string haha="hahahahaha"),

(the_greatest_sword_ever, rubberDuckie)}

location where_is_this_place {(int sizex = 10000, int sizey=9283),
(columbiaBinder),

(xiaowei_the_greatest_man_ever)}

start where_is_this_place end (count == -1) {

      output hi;
      count = count - 1;
      if (exists where_is_this_place.columbiaBinder) then {
            output "Give it to Ernesto";
            hide where_is_this_place.columbiaBinder;}

      else {output "Take morgan's and put it back";
            show where_is_this_place.columbiaBinder;}

      if (exists where_is_this_place.xiaowei_the_greatest_man_ever) then {
            output "Xiao has left the building";
            hide where_is_this_place.xiaowei_the_greatest_man_ever;}

      else {output "He is back!!";
            show where_is_this_place.xiaowei_the_greatest_man_ever;}
      output  count;

      if (count < 3) then{
            kill columbiaBinder;
            kill xiaowei_the_greatest_man_ever;
      }
      else ;

}
```

```
Hello World
Give it to Ernesto
Xiao has left the building
3
Hello World
Take morgan's and put it back
He is back!!
2
Hello World
Take morgan's and put it back
Error: The item you attempted to add no longer exists
He is back!!
Error: The character you attempted to use no longer exists
1
Hello World
Take morgan's and put it back
Error: The item you attempted to add no longer exists
He is back!!
Error: The character you attempted to use no longer exists
0
Hello World
```

```
/*StringDeclarations.next by Ernesto,  Forms of declaration of strings */
location here {(string name = "here", int sizey=9283), (), ()}
string x;
string y = x;
string z = "HI there";
string m = "You, ";
string n = z;

string i = here.name;

int count = 1;



start here end (count == 0){


      output x;
      output y;
      output z;
      output m;
      output n;
      output i;
      count = count - 1;
}
```

HI there
You,
HI there
here

```
/*types.next by Danny*/
int stop = 0;
string myString = "go go go";

item myItem1 {(int size = 50)}
item myItem2 {(int anotherSize = 100)}
item myItem3 {(int what = 1000)}

character myCharacter1 {(int life = 1), (myItem1)}
character myCharacter2 {(int id = 123), (myItem2)}
character myCharacter3 {(int health = 4), (myItem3)}

location place {(int count = 10), (myItem1, myItem2), (myCharacter1,
myCharacter2, myCharacter3)}

start place end (stop == 1) {
    output stop;
    output myString;

    output myItem1.size;

    output myCharacter1.life;

    output place.count;

    stop = 1;
}
```

0
go go go
50
1
10

```
/*UnaryOperators.next by Danny*/
int stop = 0;
string myString = "go go go";

item myItem1 {(int size = 50)}
item myItem2 {(int anotherSize = 100)}
item myItem3 {(int what = 1000)}

character myCharacter1 {(int life = 1), (myItem1)}
character myCharacter2 {(int id = 123), (myItem2)}
character myCharacter3 {(int health = 4), (myItem3)}

location place {(int count = 10), (myItem1, myItem2), (myCharacter1,
myCharacter2, myCharacter3)}

start place end (stop == 11) {
    stop = 1;
    stop = -stop;
    output stop;
    if(not myCharacter1.life) then {
        output "Error";
    }
    else {
        output "True";
    }

    stop = 11;
}
```

```
-1
True
```

```
/* ChooseStmt.next by Xiao */

item i1 {()}
item i2 {(string squeak = "squeak")}
item i3 {(int size = 50)}


character c1 {(int life = 10),()}
character c2 {(int life = 10),()}

int count = 10;

location l1 {(int sizex = 10000, int sizey=9283), (), ()}
location l2 {(),(),()}


start l1 end (count == 0 or c1.life == 0){

      choose (a,"a","a") (b,"b","b") {
            when a
            {
                  output "c1.life";
                  output c1.life = c1.life -1;
            } next l1
            when b {
                  output "count";
                  output count = count -1;
            }
            next l1
      }
}

start l2 end (count == 0);
```

```
/* ProbStmt.next by Xiao */

item i1 {()}
item i2 {(string squeak = "squeak")}
item i3 {(int size = 50)}


character c1 {(int life = 10),()}
character c2 {(int life = 10),()}

int count = 10;

location l1 {(int sizex = 10000, int sizey=9283), (), ()}
location l2 {(),(),()}


start l1 end (count == 0 or c1.life == 0){

      [?
            prob 30 {
                  output count = count-1;
            }
            prob 20 {
                  output count = count+1;
            }
            prob 30 {
                  output c1.life = c1.life-1;
            }
            prob 20 {
                  output c1.life = c1.life+1;
            }
      ?]
}
start l2 end (0);
```

```
/* StartStmt.next by Xiao */

item i1 {()}
item i2 {(string squeak = "squeak")}
item i3 {(int size = 50)}


character c1 {(int life = 10),()}
character c2 {(int life = 10),()}

int count = 10;

location l1 {(int sizex = 10000, int sizey=9283), (), ()}
location l2 {(),(),()}
location l3 {(),(),()}


start l1 end (count == 0 or c1.life == 0){
      output "in l1";
      choose (a,"1","1") (b,"2","2") (c,"3","3"){
            when a
            {
                  output "go to l1";
            } next l1
            when b
            {
                  output "go to l2";
            } next l2
            when c
            {
                  output "go to l3";
            } next l3
      }
}

start l2 end (count = 0 or c1.life = 0){
      output "in l2";
      output count;
      choose (a,"1","1") (b,"2","2") (c,"3","3"){
            when a
            {
                  output "go to l1";
            } next l1
            when b
            {
                  output "go to l2";
            } next l2
            when c
            {
                  output "go to l3";
            } next l3
      }

}

start l3 end (count == 0 or c1.life == 0) {
      output "in l3";
      choose (a,"1","1") (b,"2","2") (c,"3","3"){
            when a
            {
                  output "go to l1";
            } next l1
            when b
            {
```

```
                output "go to l2";
            } next l2
            when c
            {
                output "go to l3";
            } next l3
        }
}
```