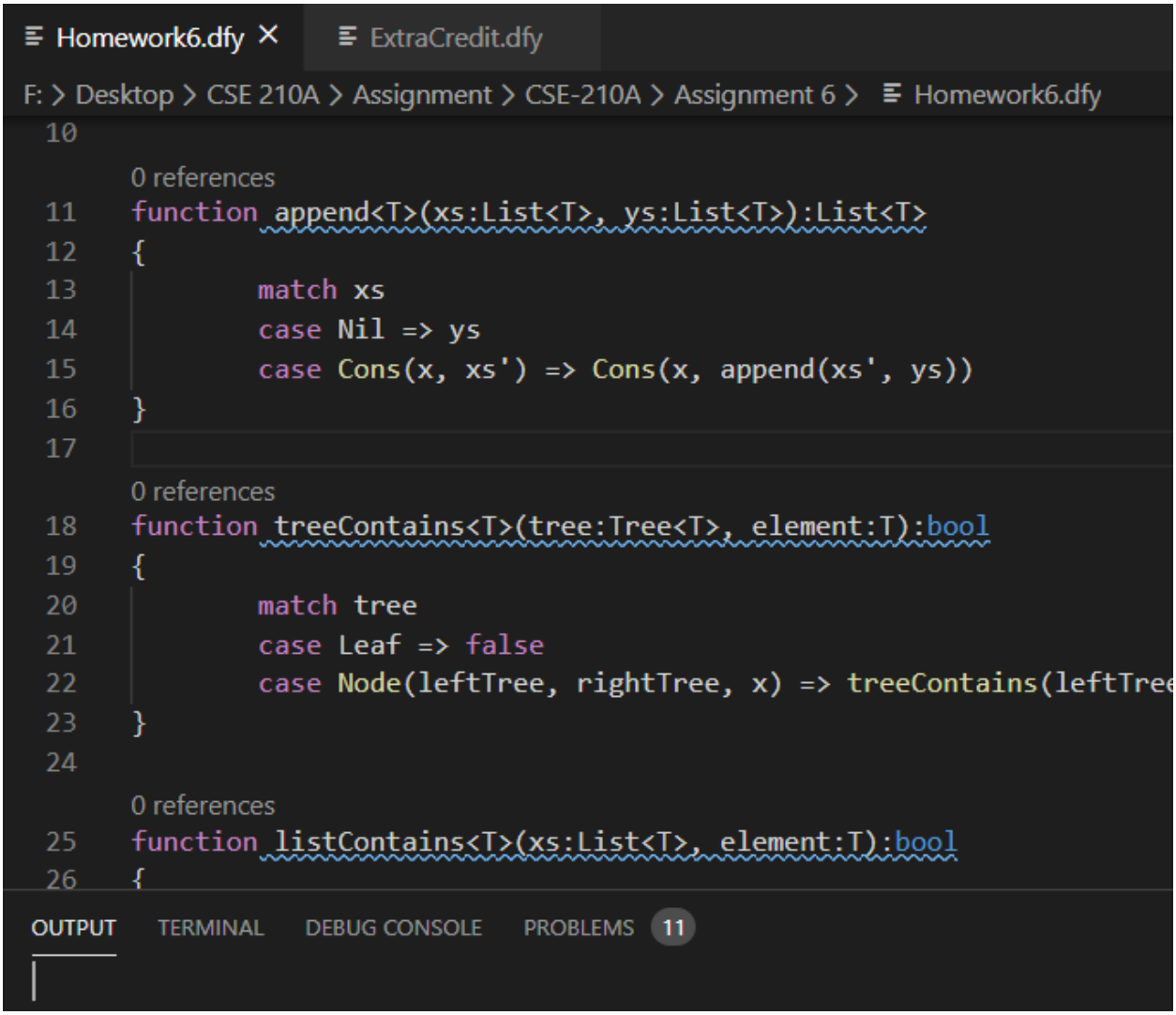
The OUTPUT section seems to be empty if there is no mistake. So I recorded the PROBLEMS section also.



Homework6.dfy | ExtraCredit.dfy

F: > Desktop > CSE 210A > Assignment > CSE-210A > Assignment 6 > ExtraCredit.dfy

```
54                  case(Var(x), Mult(x', y')) => Mult(e1', e2')
55
56                  case(Plus(x', y'), Const(b)) => if b == 0 then Const(0) els
57                  case(Plus(x', y'), Var(y)) => Mult(e1', e2')
58                  case(Plus(x', y'), Plus(m', n')) => Mult(e1', e2')
59                  case(Plus(x', y'), Mult(m', n')) => Mult(e1', e2')
60
61                  case(Mult(x', y'), Const(b)) => if b == 0 then Const(0) els
62                  case(Mult(x', y'), Var(y)) => Mult(e1', e2')
63                  case(Mult(x', y'), Plus(m', n')) => Mult(e1', e2')
64                  case(Mult(x', y'), Mult(m', n')) => Mult(e1', e2')
65              }
66      }
67
68      //as you write optimize this will become unproved
69      //you must write proof code so that Dafny can prove this
        4 references
70      method optimizeCorrect(e:Exp, s:map<string, int>)
71      ensures eval(e,s) == eval(optimize(e), s)
72      {
```

OUTPUT | TERMINAL | DEBUG CONSOLE | PROBLEMS 11

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- decreases e, store Dafny VSCode [3, 9]
- decreases e Dafny VSCode [13, 9]
- decreases e, s Dafny VSCode [70, 7]

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- decreases tree Dafny VSCode [4, 9]
- decreases xs, ys Dafny VSCode [11, 9]
- decreases tree Dafny VSCode [18, 9]
- decreases xs Dafny VSCode [25, 9]
- {:induction xs, ys} Dafny VSCode [33, 6]
- {:induction tree} Dafny VSCode [41, 6]
- decreases tree Dafny VSCode [41, 6]
- == Dafny VSCode [51, 12]