Matthew Silva
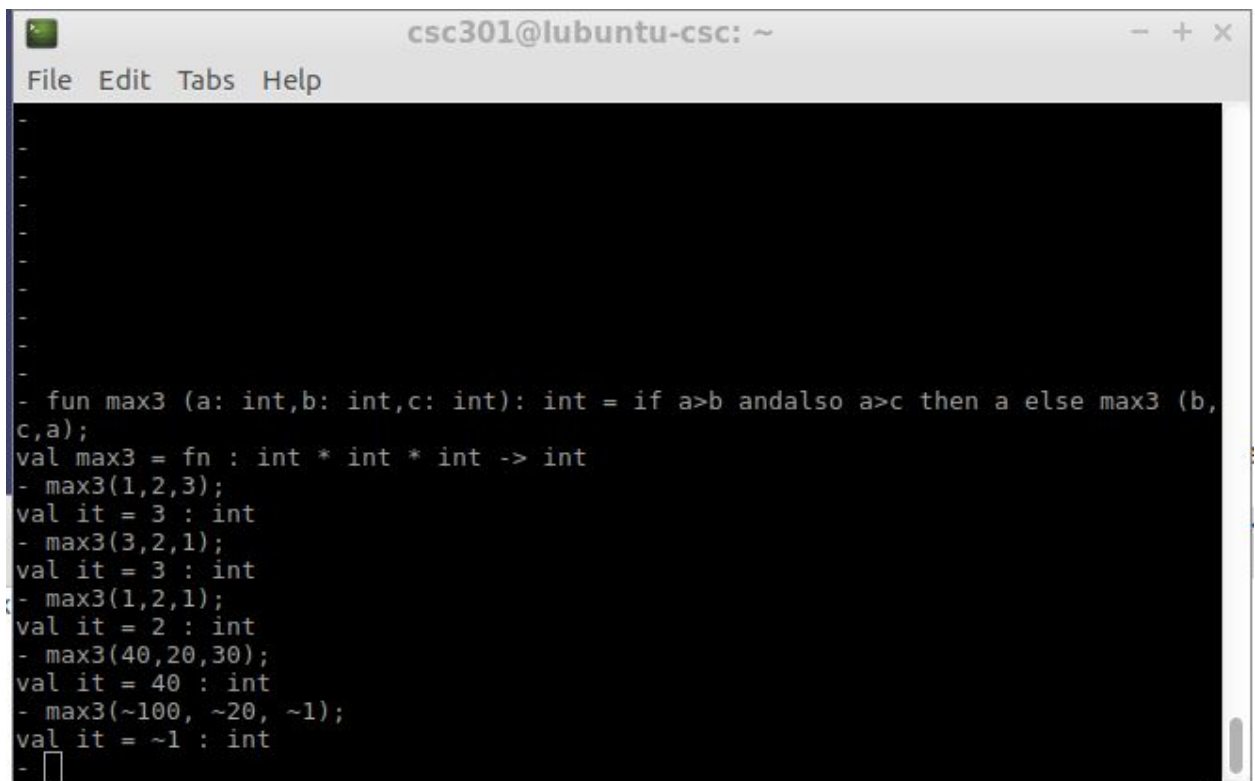
Professor Hamel

CSC 301

8 October 2017

CSC 301 Assignment #4

1. fun max3 (a: int,b: int,c: int): int = if a>b andalso a>c then a else max3 (b,c,a);
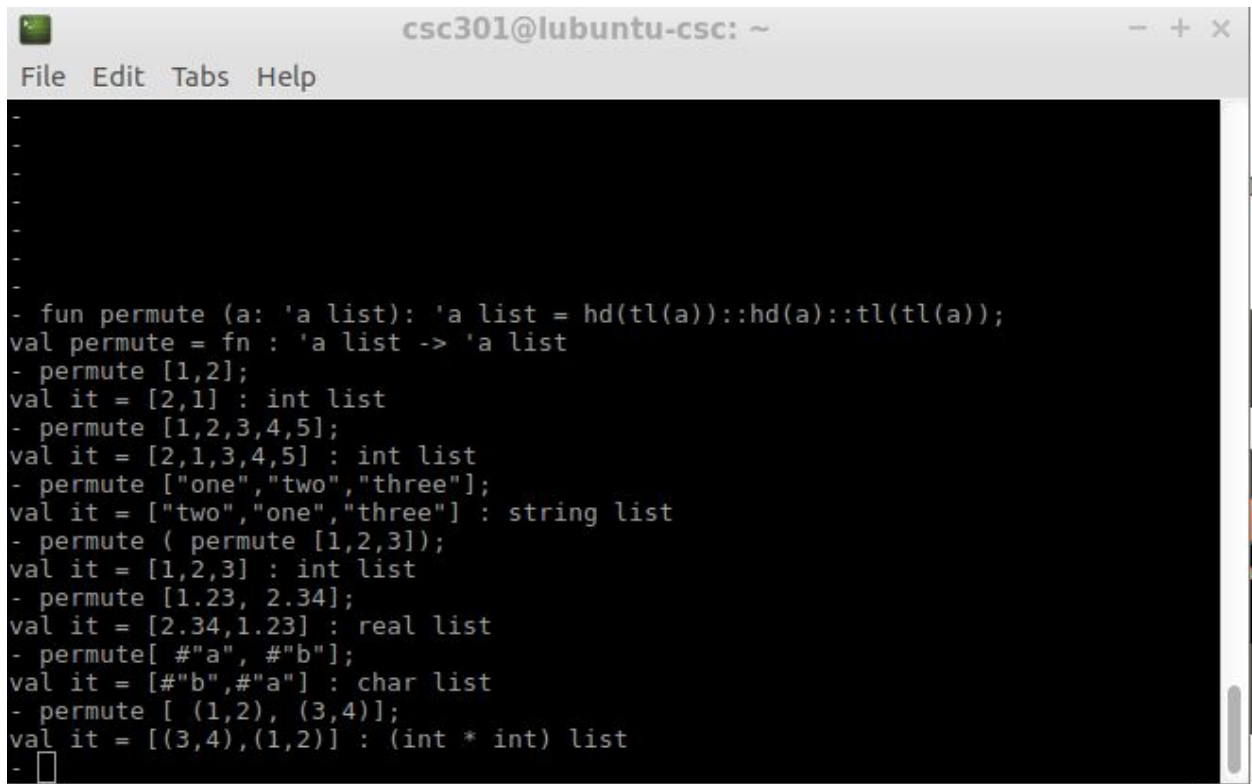
2. fun second (a: 'a list): 'a = hd(tl(a));

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- fun second (a: 'a list): 'a = hd(tl(a));
val second = fn : 'a list -> 'a
- second [1,2];
val it = 2 : int
- second [1,2,3,4,5];
val it = 2 : int
- second ["one", "two", "three"];
val it = "two" : string
- second( second [[1,2,3],[4,5,6]]);
val it = 5 : int
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- []
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3. fun permute (a: 'a list): 'a list = hd(tl(a))::hd(a)::tl(tl(a));

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- fun permute (a: 'a list): 'a list = hd(tl(a))::hd(a)::tl(tl(a));
val permute = fn : 'a list -> 'a list
- permute [1,2];
val it = [2,1] : int list
- permute [1,2,3,4,5];
val it = [2,1,3,4,5] : int list
- permute ["one","two","three"];
val it = ["two","one","three"] : string list
- permute ( permute [1,2,3]);
val it = [1,2,3] : int list
- permute [1.23, 2.34];
val it = [2.34,1.23] : real list
- permute[ #"a", #"b"];
val it = [#"b",#"a"] : char list
- permute [ (1,2), (3,4)];
val it = [(3,4),(1,2)] : (int * int) list
-
```