

Matthew Silva

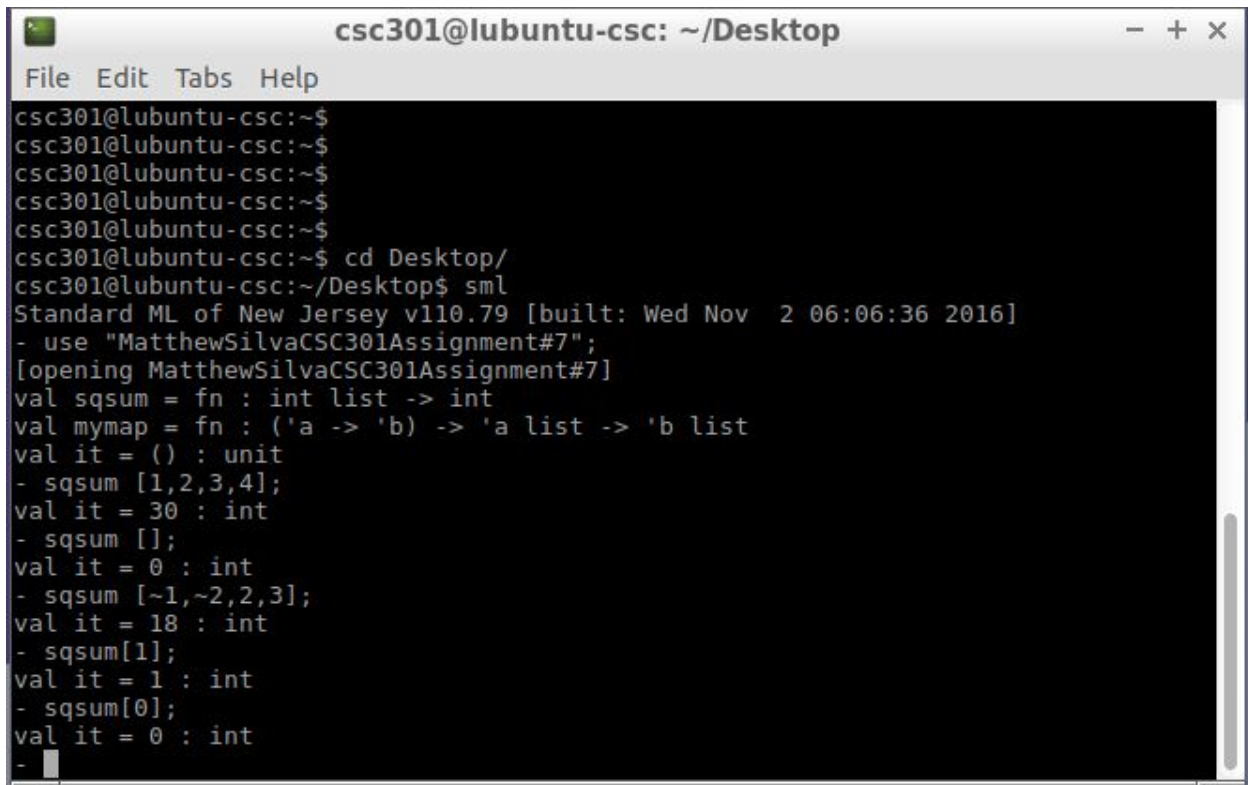
Professor Hamel

CSC 301

2 November 2017

Assignment #7

```
fun sqsum L = foldr (fn (a,b) => (a*a + b)) 0 L;
```

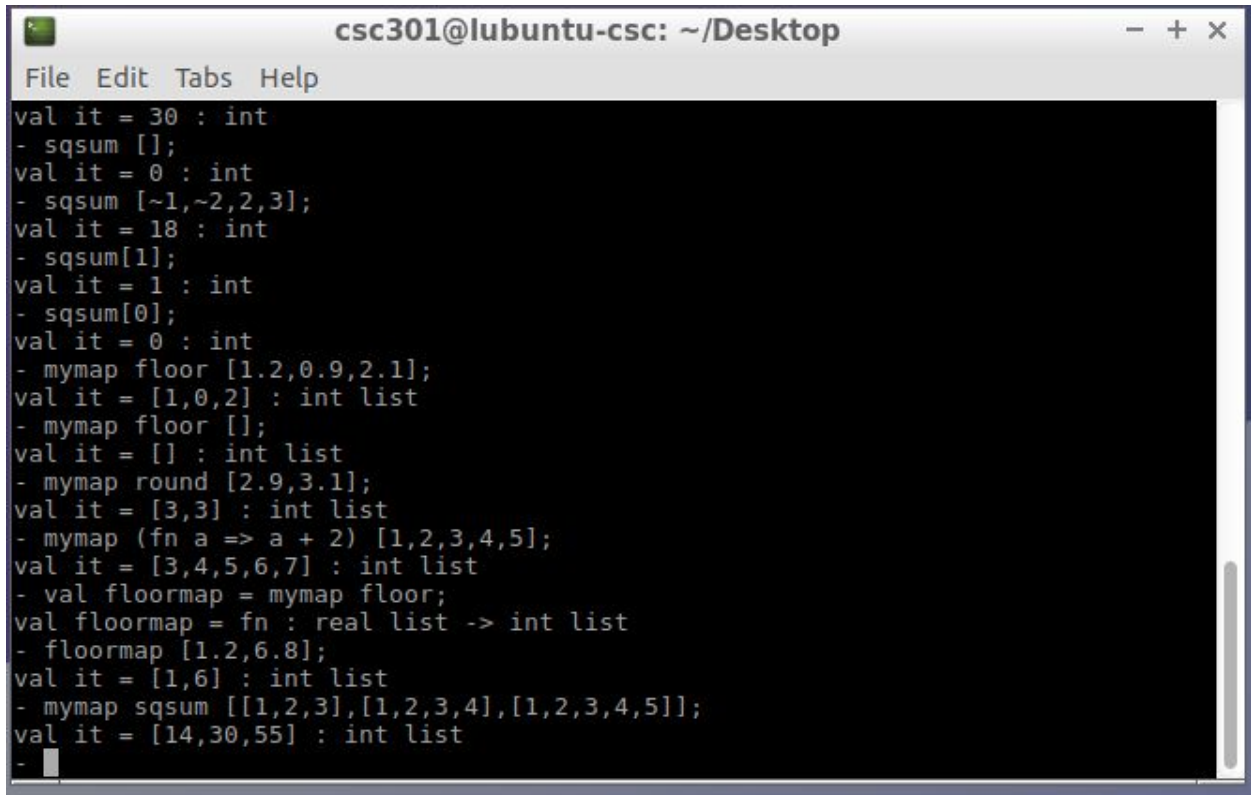


The screenshot shows a terminal window titled "csc301@lubuntu-csc: ~/Desktop". The window contains the following text:

```
File Edit Tabs Help
csc301@lubuntu-csc:~$
csc301@lubuntu-csc:~$
csc301@lubuntu-csc:~$
csc301@lubuntu-csc:~$
csc301@lubuntu-csc:~$
csc301@lubuntu-csc:~$ cd Desktop/
csc301@lubuntu-csc:~/Desktop$ sml
Standard ML of New Jersey v110.79 [built: Wed Nov  2 06:06:36 2016]
- use "MatthewSilvaCSC301Assignment#7";
[opening MatthewSilvaCSC301Assignment#7]
val sqsum = fn : int list -> int
val mymap = fn : ('a -> 'b) -> 'a list -> 'b list
val it = () : unit
- sqsum [1,2,3,4];
val it = 30 : int
- sqsum [];
val it = 0 : int
- sqsum [~1,~2,2,3];
val it = 18 : int
- sqsum[1];
val it = 1 : int
- sqsum[0];
val it = 0 : int
- 
```

```
fun mymap f [] = [ ]
```

```
| mymap f (x::rest) = (f x) :: mymap f rest;
```



The screenshot shows a terminal window titled "csc301@lubuntu-csc: ~/Desktop". The window contains a menu bar with "File", "Edit", "Tabs", and "Help". The terminal displays the following Scala code and REPL output:

```
val it = 30 : int
- sqsum [];
val it = 0 : int
- sqsum [~1,~2,2,3];
val it = 18 : int
- sqsum[1];
val it = 1 : int
- sqsum[0];
val it = 0 : int
- mymap floor [1.2,0.9,2.1];
val it = [1,0,2] : int list
- mymap floor [];
val it = [] : int list
- mymap round [2.9,3.1];
val it = [3,3] : int list
- mymap (fn a => a + 2) [1,2,3,4,5];
val it = [3,4,5,6,7] : int list
- val floormap = mymap floor;
val floormap = fn : real list -> int list
- floormap [1.2,6.8];
val it = [1,6] : int list
- mymap sqsum [[1,2,3],[1,2,3,4],[1,2,3,4,5]];
val it = [14,30,55] : int list
- 
```