```
Last login: Fri Jan 27 13:21:00 on ttys023 carbon:SamplePrograms$ cd Sec_01
-bash: cd: Sec_01: No such file or directory carbon:SamplePrograms$ cd Sec_01_1\:25pm/carbon:Sec_01_1:25pm$ utop
```

Welcome to utop version 1.14 (using OCaml version 4.01.0)!

Type #utop\_help for help about using utop.

```
-( 18:00:00 )-< command 0 >---
                                                     _____{ counter: 0 }_
utop # #use "find_and_lookup.ml";;
val m : (string * int) list =
[("dog", 1); ("chicken", 2); ("dog", 3); ("cat", 5)]
                                                                           va
l lookup_all : 'a -> ('a * 'b) list -> 'b list = <fun>
                                                       _____{ counter: 0 }-
-(14:07:49) -< command 1 >---
utop # lookup_all "dog" m ;;
-: int list = [1; 3]
                                        _____{ counter: 0 }-ut
( 14:08:02 )-< command 2 >---
op # #use "find and lookup.ml";;
val m : (string * int) list =
[("dog", 1); ("chicken", 2); ("dog", 3); ("cat", 5)]
                                                                           va
l lookup_all : 'a -> ('a * 'b) list -> 'b list = <fun>
                                                                          val
find all by : ('a -> 'b -> bool) -> 'b -> 'a list -> 'a list = <fun>
-( 14:08:02 )-< command 3 >----
                                                    _____{ counter: 0 }-
utop # #use "find and lookup.ml";;
val m : (string * int) list =
 [("dog", 1); ("chicken", 2); ("dog", 3); ("cat", 5)]
                                                                           va
l lookup_all : 'a -> ('a * 'b) list -> 'b list = <fun>
val streg : 'a -> 'a -> bool = <fun>
val find_all_by : ('a -> 'b -> bool) -> 'b -> 'a list -> 'a list = <fun>
-( 14:11:53 )-< command 4 >----
                                                      _____{ counter: 0 }-
utop # find_all_by streq "dog" m ;;
Error: This expression has type (string * int) list
     but an expression was expected of type string list
     Type string * int is not compatible with type string
                                                        _____{ counter: 0 }-
-( 14:12:23 )-< command 5 >----
utop # find_all_by streq "dog" [ "hello"; "cat"; "dog"; "cow" ] ;;
- : string list = ["dog"]
                                         _____{{ counter: 0 }-ut
( 14:13:37 )—< command 6 >——
op # #use "find_and_lookup.ml";;
val m : (string * int) list =
[("dog", 1); ("chicken", 2); ("dog", 3); ("cat", 5)]
                                                                           va
l lookup_all : 'a -> ('a * 'b) list -> 'b list = <fun>
val streq : 'a -> 'a -> bool = <fun>
val check : 'a * 'b -> 'a -> bool = <fun>
val find all by : ('a \rightarrow 'b \rightarrow bool) \rightarrow 'b \rightarrow 'a list \rightarrow 'a list = <fun>
-( 14:13:37 )-< command 7 >-----
                                                     _____{ counter: 0 }-
utop # find_all_by check "dog" [ "hello"; "cat"; "dog"; "cow" ] ;;
Error: This expression has type string but an expression was expected of type
       string * 'a
utop #
```

Arg Arith\_status Array ArrayLabels Assert\_failure Big\_int Bigarray Buffer Callb