

FIT2102 PASS – Week 6

# Observables discussion

Tutorial 4 – `keyboardControl()`

# Tutorial tips – Haskell

# All functions are curried

```
const binaryFunction =  
  <T, U, V>(f: (a: T, b: U) => V)  
    => (a: T)  
      => (b: U)  
        => f(a, b);
```

# All functions are curried

```
binaryFunction :: (a -> b -> c) -> a -> b -> c  
binaryFunction f a b = f a b
```

# All functions are curried

```
add :: Integer -> Integer -> Integer  
add = binaryFunction (+)
```

# Syntax – Pattern Matching

```
plusIntPair :: IntPair -> Int  
plusIntPair (IntPair a b) = a + b
```

# Syntax – Pattern Matching

```
head :: [a] -> a
```

```
head [] = error "Empty list"
```

```
head (x:xs) = x
```



# Syntax – if-then-else

`max :: (Integral a) => a -> a -> a`

`max a b = if a > b then a else b`

# Syntax – Enumeration

```
Prelude> [1..10]
```

```
[1,2,3,4,5,6,7,8,9,10]
```

```
Prelude>
```

# Haskell – Live coding

<https://github.com/system-f/fp-course>

Optional, List