Assignment 1

1)

1. **Control flow:** how execution flows within the program (sequence and branches, in concurrent threads, in reactive manner, declarative)

2. **Code Organization:** how code is organized into a hierarchy of units (expressions, functions, modules, packages) and how these units are organized.

3. **Performance:** how code can be run fast, use less resources (RAM, disk, network), behave better (responsive, scalable) at runtime.

2)

1. (x,y) => x+y : x: number, y: number => number
2. x=>x[0] : x: string | T[] => T
3. (x,y) => x ? y : -y : x:Boolean, y:number => number

3)

"Shortcut semantics" - The native ***some*** and ***every*** methods employ a concept known as 'shortcut semantics'. What this means, is that some stops and immediately returns true at the moment it finds an element that satisfies the predicate. every stops and immediately returns false at the moment it finds an element that does not satisfy the predicate.