

# Dart

## Functions

# Functions

- Dart is a true object-oriented language, so even functions are objects and have a type, **Function**
- **bool** isEven(**int** num) {  
    **return** num % 2 == 0  
}
- isEven(num) {  
    **return** num % 2 == 0  
}
- **bool** isEven(int num) => num % 2 == 0

# Optional parameters

- Optional named parameters
- Optional positional parameters
- `@required`  
`const Scrollbar({ Key key, @required Widget child })`
- more: <https://nmrony.info/dart-optional-parameters/>

# Function as a parameter

- `var list = [1, 2, 3];`  
`list.forEach(printElement);`  
  
`printElement(int element) {`  
    `print(element);`  
`}`

# Function as variable

- `var loudly = (msg) => `${msg.toUpperCase()}`;`  
`assert( loudly('hello') == 'HELLO');`

# Anonymous functions

- a nameless function called an anonymous function, or sometimes a *lambda* or *closure*
- ```
(([Type] param1[, ...])) {  
    codeBlock;  
};
```
- ```
var list = ['apples', 'bananas', 'oranges'];  
list.forEach(  
    // item is an untyped parameter  
    // this is a closure  
    (item) {  
        print('${list.indexOf(item): $item}');  
    }  
);
```