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Web 330 : Discussion 4.1

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Lambda Expressions

“A lambda expression is a convenient syntax available in many programming languages for writing short functions. Lambda expressions do for functions what object-oriented programing does for objects: It makes a function something you can assign to a variable” (Data).

Basically, using lambda is a shorthand way to write functions. Josh Data provides an excellent example for how using lambda would work in the JavaScript language specifically.

function add\_one(x) {

return x+1;

{

Above is a regular function written out.

Below is how the same function looks in lambda.

X => x+1

Lambda expressions are the same as functions. They have arguments separated by commas and enclosed in parentheses. They have a body with statements or expressions. Statements are surrounded by braces and can return a value. Depending on the language, lambdas allow both expressions and statements within a lambda. The above example is a lambda function where the body is an expression. the difference between a regular function and a lambda expression is where they appear in the code. Regular functions are usually at the top of the code or in a class. Lambda expression are inside statements because it is an expression.

Pros of lambda expressions are:

* Readable code
* Know which methods are implemented by looking at each call. ‘

Cons of lambda expressions:

“The big paradox of lambdas is that they are so syntactically simple to write and so tough to understand if you’re not used to them. So if you have to quickly determine what the code is doing, the abstraction brought in by lambdas, even as it simplifies the Java syntax, will be hard to understand quickly and easily” (JRebel, 2014).

Resources:

JRebel. (2014, March 4). *Pros and cons of lambdas in java 8*. JRebel by Perforce. Retrieved January 24, 2023, from <https://www.jrebel.com/blog/pros-and-cons-of-lambdas-in-java-8>

Data, J. (n.d.). *Lambda expressions*. Lambda Expressions: A Guide. Retrieved January 24, 2023, from https://joshdata.me/lambda-expressions.html