

# ECAP615

## Programming in Java



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# Learning Outcomes



After this lecture, you will be able to

- learn the basic concept of properties class and Lambda Expressions.
- understand the implementation of various constructors and methods of properties class.
- implementation of Lambda Expressions.

# Properties Class

Properties is a subclass of Hash table.

It is used to maintain lists of values in which the key is a String and the value is also a String.

It can be used to get property value based on the property key.

The Properties class provides methods to get data from the properties file and store data into the properties file.

Moreover, it can be used to get the properties of a system.

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# Constructors of Properties class

Method	Description
<code>Properties()</code>	It creates an empty property list with no default values.
<code>Properties(Properties defaults)</code>	It creates an empty property list with the specified defaults.



# Properties class to get information from the properties file

- To get information from the properties file, create the properties file first.
- Create the java class to read the data from the properties file.

# Methods of Properties Class

- Properties class to get information from the properties file.
- Properties class to create the properties file.
- Properties class to get all the system properties.

# Lambda Expressions

- **Lambda expression is a new and important feature of Java that was included in Java SE 8.**
- It helps to iterate, filter and extract data from collection.
- A lambda expression is a short block of code which takes in parameters and returns a value.
- Lambda expressions are similar to methods, but they do not need a name and they can be implemented right in the body of a method.

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# Lambda Expressions

The simplest lambda expression contains a single parameter and an expression:

Syntax:

parameter -> expression

To use more than one parameter, wrap them in parentheses

Syntax:

(parameter1, parameter2) -> expression

# Lambda Expressions

- **Expressions are limited.**
- They have to immediately return a value, and they cannot contain variables, assignments or statements such as if or for.
- In order to do more complex operations, a code block can be used with curly braces.
- If the lambda expression needs to return a value, then the code block should have a return statement.



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# Important Points

- The body of a lambda expression can contain zero, one or more statements.
- When there is a single statement, curly brackets are not mandatory and the return type of the anonymous function is the same as that of the body expression.

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When there are more than one statements, then these must be enclosed in curly brackets (a code block) and the return type of the anonymous function is the same as the type of the value returned within the code block, or void if nothing is returned.

A blue scroll graphic with a white border and a gradient fill. The scroll is unrolled, showing the text "That's all for now...". The scroll has a small circular detail at the top right corner.

**That's all for now...**