Level *Up*

MASTER YOUR DIGITAL SKILLS

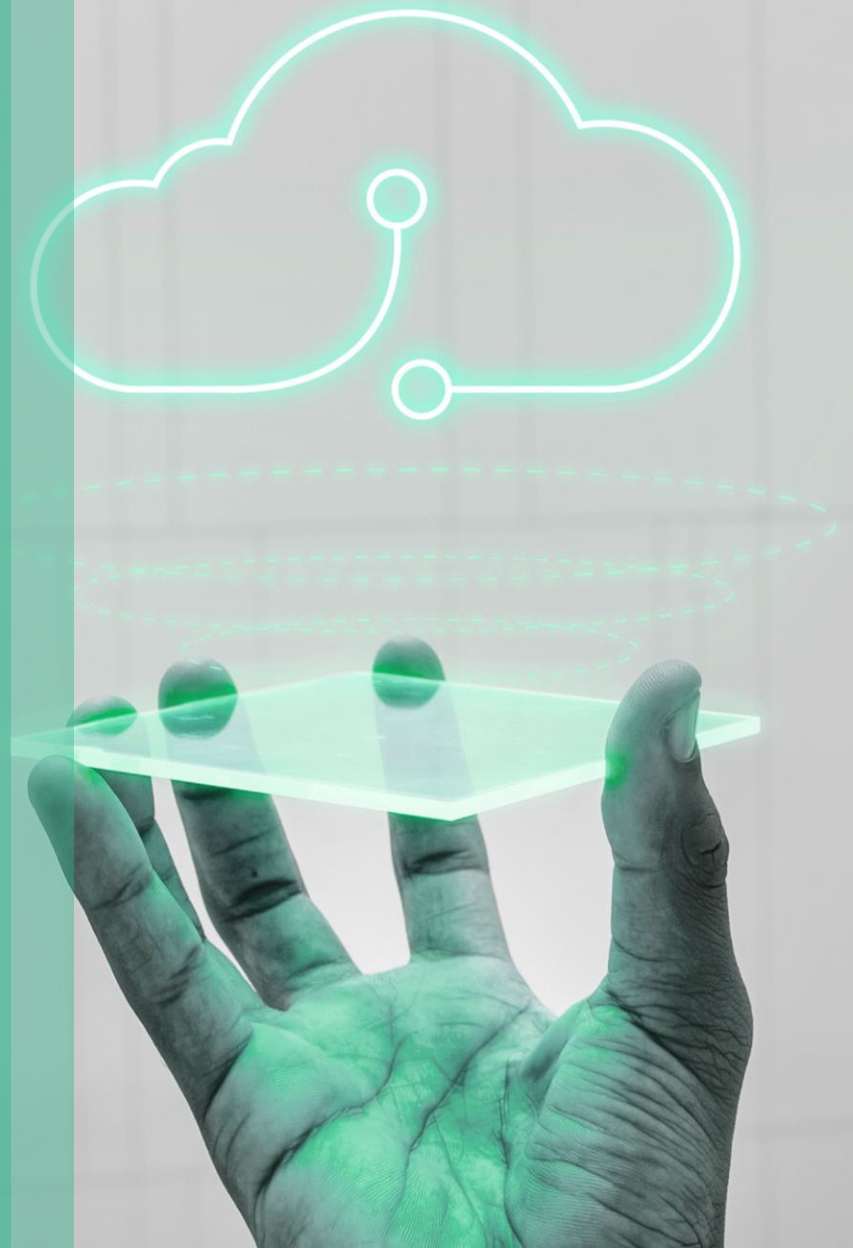## Introduction to Object Orientation using Java

Cloud & Software / Programming

Andreas Grondoudis, PhD

COURSE OVERVIEW

The course builds on existing Java knowledge and will show you how to model anything from the real world using object orientation and create programmatic structures to use in solutions. We will discuss classes and use instance objects; talk about code reusability and the concepts of inheritance and polymorphism. Participants will acquire a modern skill-set to enable them to model any problem.

OUR GOALS

1. Introduce object-orientation concepts like classes and objects and use them in problem solving

2. Learn a structured way of how to model anything and create our own data type to describe real-world entities and/or concepts.

3. Demonstrate inheritance and use software reusability to create class hierarchies.

4. Utilize hierarchies of classes and the concept of polymorphism to economize in code.

COURSE DESCRIPTION

The course uses the Java programming language to introduce object oriented concepts and teach you how to create your own classes (data type) to model any real-world entity or concept and be able to use them in programmatic solutions.

- **Basics of object-orientation**
- **Creating classes (data attributes; get and set methods; constructors; toString & other methods)**
- **Using classes; static and constant class members; class composition**
- **Inheritance, class hierarchies**
- **Polymorphism and dynamic binding**

COURSE INFO

Location	**Online (Asynchronous)**
Date	**31st October, 2024**
Time	**N/A**
Duration	**2 x 2-hours sessions**
Cost	**The course is fully funded under the EU project Level Up**

Andreas Grondoudis, PhD

Andreas is an Assistant Professor of Computer Science at the Department of Computer Science and Engineering of the European University Cyprus. His primary teaching responsibilities include programming, object-oriented programming and technical writing. His research interests include programming; computer networks; protocols of communication systems; education; engineering education. Before coming to Cyprus he worked as a senior software developer in Sheffield, United Kingdom. His PhD work focused on a typical methodology called X-Machines and their usage for the specification, verification and testing of protocols of communication for computer networks.

Level *Up*

Enroll Now

CONNECT WITH US

M. shortcourses@euc.ac.cy
T. 22559689

VISIT US AT

https://shortcourses.euc.ac.cy/

VISIT US AT

levelup-skills.eu

CONNECT WITH US