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| Tên môn | Lập trình hướng đối tượng (bằng Java) |
| Mã môn | PRO192x\_2.1\_VN |
| Tên file | Keyword Index |

**Phần 1: Làm quen với lập trình Java**

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| Bài 1. Chương trình Java đầu tiên | | | |
| **STT** | **Keyword** | **Name video** | **Link video** |
| 1 | JRE | Intro to Module 1 | [Introduction | Module 1 | Java Basics | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+3T2019/block-v1:Microsoft+DEV276x+3T2019+type@sequential+block@c8722347dd8548dbb644781a9be49223/block-v1:Microsoft+DEV276x+3T2019+type@vertical+block@3e3d10e3ee8f475394d15429cf3b12a6) |
| 2 | JDK |
| 3 | Object oriented Programming | Hello World | [Writing your first Java program | Module 1 | Java Basics | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2018/block-v1:Microsoft+DEV276x+1T2018+type@sequential+block@3bbbbaff8bcf4d439778d8a9b9670330/block-v1:Microsoft+DEV276x+1T2018+type@vertical+block@d907fba2be7f4c0686bd0df5728d34f2) |
| 4 | IDE |
| 5 | Integrated Development Environment |
| 6 | Class name |
| 7 | Java Naming Conventions |
| 8 | Class | Parts of a Java Program | [Writing your first Java program | Module 1 | Java Basics | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2018/block-v1:Microsoft+DEV276x+1T2018+type@sequential+block@3bbbbaff8bcf4d439778d8a9b9670330/block-v1:Microsoft+DEV276x+1T2018+type@vertical+block@a2c641c95d4546a79bdf62884412f2f9) |
| 9 | Main Method |
| 10 | Statements |
| 11 | Strings | Strings | [Basic Java Commands | Module 1 | Java Basics | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@d938944ace7d40b0905e18b717bd11a4/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@1245716f8d68476fbc121c5b84909a94) |
| 12 | Escape Sequences |
| 13 | Printlns |
| 14 | Prints |
| 15 | Divide and Conquer | Methods | [Basic Java Commands | Module 1 | Java Basics | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@d938944ace7d40b0905e18b717bd11a4/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@1653378222b7404ba76a24bcc63694d8) |
| 16 | Method names |
| 17 | Calling a Method |
| 18 | Control Flow | Control Flow | [Basic Java Commands | Module 1 | Java Basics | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@d938944ace7d40b0905e18b717bd11a4/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@3388944508ad46dca08dcbf6735dcb29) |

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| Bài 2. Biến, kiểu dữ liệu và toán tử | | | |
| **STT** | **Keyword** | **Name video** | **Link video** |
| 1 | Integer | Data Types | [Data Types and Variables | Module 1 | Java Basics | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@2c712b753c12412a9244003a5d6841e1/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@59786721c6674fe180bc783090c89b22) |
| 2 | Double |
| 3 | Character |
| 4 | Boolean |
| 5 | Scope | Variables | [Data Types and Variables | Module 1 | Java Basics | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@2c712b753c12412a9244003a5d6841e1/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@4250e4a204b34a0896239de4546c2215) |
| 6 | Class constants |
| 7 | Local variable |
| 8 | Parentheses | Mathematical Operations | [Data Types and Variables | Module 1 | Java Basics | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@2c712b753c12412a9244003a5d6841e1/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@5f006fe1125d4a1991e34df0e2798ac8) |
| 9 | Multiply and Divide |
| 10 | Add and Subtract |
| 11 | Concatenate | String Concatenation | [Data Types and Variables | Module 1 | Java Basics | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@2c712b753c12412a9244003a5d6841e1/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@c1f2fad82bc34e63a3a23a362523bcc1) |
| 12 | Casting | Casting | [Data Types and Variables | Module 1 | Java Basics | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@2c712b753c12412a9244003a5d6841e1/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@e0d9b1c2e7ff4926a716bf6cbe1d7ed6) |
| 13 | Scanner | Scanner | [Interactive Programs | Module 1 | Java Basics | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@777f21302f3d418abceca13e7712d1ec/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@9a16733f2cb944079a0448e0502127a0) |

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| Bài 3. Câu lệnh có điều kiện | | | |
| **STT** | **Keyword** | **Name video** | **Link video** |
| 1 | Boolean expressions | Booleans | [Logic | Module 2 | Control Structures | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@42de77f20cce457583d0ec7c00deee1a/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@a101a189f3d54686a5a558a82cd5a010) |
| 2 | If Statement | If else statements | [Logic | Module 2 | Control Structures | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@42de77f20cce457583d0ec7c00deee1a/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@c1508823de9f4a10abe4f6c2c10c8f78) |
| 3 | If/Else Statements |
| 4 | If/Else If/ Else |
| 5 | AND, OR, NOT | Combining logic | [Logic | Module 2 | Control Structures | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@42de77f20cce457583d0ec7c00deee1a/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@4c531c2ea76440deae9665d37dec8a27) |

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| Bài 4. Vòng lặp | | | |
| **STT** | **Keyword** | **Name video** | **Link video** |
| 1 | For loop | Meet Loops | [Loop Basics | Module 2 | Control Structures | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@ccd8543431db46afa818175e2f11d57c/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@71e749366c5d40a687e6978c53b08347) |
| 2 | initialization | For loops | [Loop Basics | Module 2 | Control Structures | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@ccd8543431db46afa818175e2f11d57c/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@b3aba92938db40afacae51732f02219a) |
| 3 | test |
| 4 | For Loop Patterns |
| 5 | Nested Loop | Nested Loops | [More Loops | Module 2 | Control Structures | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@35aa3d1999ab4c98b9d4dd2372977abc/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@a3c5c0bdb2ed49c2a875982d8bff26e0) |
| 6 | while loop | While Loops | [More Loops | Module 2 | Control Structures | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@35aa3d1999ab4c98b9d4dd2372977abc/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@d7eb881ff8854d429911bf659cc2913d) |

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| Bài 5. Hàm (Phương thức) | | | |
| **STT** | **Keyword** | **Name video** | **Link video** |
| 1 | parameter | Meet Parameters | [Parameters | Module 3 | Data Flow | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@91c95829c1f34e038b519eaabf40fe28/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@7a199a8d10ec4397a4fe0c87f4be05e3) |
| 2 | Method |
| 3 | signatures method | Overloading Methods | [Parameters | Module 3 | Data Flow | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@91c95829c1f34e038b519eaabf40fe28/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@199da73345864d3faa4dd1faac11219f) |
| 4 | overloaded method |
| 5 | return statement | Meet Returns | [Returns | Module 3 | Data Flow | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@6393f0339a104260bf3e93024855ac86/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@189610cf27104005973baa2afa92fc70) |
| 6 | access modifier |
| 7 | Math.PI | Java's Math Class | [Data Processing Functions | Module 3 | Data Flow | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@192e2debf6ee4f4ca93ce454fce07148/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@4a1fb6d4875346809fb94bc08ead176a) |
| 8 | Round method |
| 9 | Pow method |
| 10 | Sqrt method |
| 11 | Random method |
| 12 | length | Java's String Methods | [Data Processing Functions | Module 3 | Data Flow | Learn to Program in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV276x+1T2019/block-v1:Microsoft+DEV276x+1T2019+type@sequential+block@192e2debf6ee4f4ca93ce454fce07148/block-v1:Microsoft+DEV276x+1T2019+type@vertical+block@7f90d3b118714a53abd507ebab7b6a36) |
| 13 | substring  indexOf |
| 14 | equals |
| 15 | charAt |
| 16 | lastIndexOf |
| 17 | toLowerCase |
| 18 | toUpperCase |
| 19 | replace |

### **Phần 2: Cấu trúc dữ liệu cơ bản**

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| Bài 6. Mảng | | | |
| **STT** | **Keyword** | **Name video** | **Link video** |
| 1 | primitives | Primitives vs Objects | [Introduction | Module 1 | What is an Object | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@36c67f81591c4d11bfeb2bf1b0f301c6/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@7315c7a5e14b4a7e9c19702a1f8bfe82) |
| 2 | Objects |
| 3 | Null |
| 4 | array | Meet Arrays | [Arrays | Module 1 | What is an Object | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@73b3ce1ec30b41b4b203d62ae8ef2318/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@ae9dd398eefb42c0868e8a85ce2a2779) |
| 5 | element |
| 6 | index |
| 7 | IndexOutOfBoundsException |
| 8 | The Length Field | Coding With Arrays | [Arrays | Module 1 | What is an Object | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@73b3ce1ec30b41b4b203d62ae8ef2318/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@804cd230b9f6464fa7acb944636278cf) |
| 9 | Arrays.toString(array) |
| 10 | Arrays.equals(array1, array2) |
| 11 | Arrays.fill(array, value) |
| 12 | Arrays.copyOf(array, newLength) |
| 13 | Arrays.sort(array) |
| 14 | ArraysbinarySearch(array, value) |
| 15 | primitive data | Reference Semantics | [Arrays | Module 1 | What is an Object | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@73b3ce1ec30b41b4b203d62ae8ef2318/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@84b6a87b0ff54733bc69f578e64924f8) |
| 16 | object data |
| 17 | Array Reference Semantics |
| 18 | Arrays of Objects |

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| Bài 7. Danh sách Mảng | | | |
| **STT** | **Keyword** | **Name video** | **Link video** |
| 1 | two dimensional array | Meet 2D arrays | [2D Arrays | Module 1 | What is an Object | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@135b51f9adf1434cbd792b74f9890d98/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@d6faae1e80c546f2ac4bdf236388853a) |
| 2 | rows |
| 3 | columns |
| 4 | Loops and 2D arrays | Coding With 2D arrays | [2D Arrays | Module 1 | What is an Object | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@135b51f9adf1434cbd792b74f9890d98/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@de6dd1d6d8234800b280ff84ef340144) |
| 5 | Creating an ArrayList | Meet Array Lists | [Array Lists | Module 1 | What is an Object | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@6ad2c6bbd76e436b9c96d7b79cc6ba54/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@b73c70d6da7d4e5da1956ffaa2981f66) |
| 6 | Wrapper Classes |
| 7 | Storing Data with an ArrayList |
| 8 | set(index, value) | Coding With Array Lists | [Array Lists | Module 1 | What is an Object | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@6ad2c6bbd76e436b9c96d7b79cc6ba54/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@fc44db4ae7484ba281f9304eecaac766) |
| 9 | get(index) |
| 10 | add(value) |
| 11 | add(value, index) |
| 12 | indexOf(value) |
| 13 | contains(value) |
| 14 | remove(index) |
| 15 | ArrayLists and Loops |

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| Bài 8. Làm việc với file I/O | | | |
| **STT** | **Keyword** | **Name video** | **Link video** |
| 1 | Buffered Streams | Java: Read a CSV File into an Array | **https://www.youtube.com/watch?v=-Aud0cDh-J8** |
| 2 | Byte Stream |
| 3 | Chracter Stream |
| 4 | CSVReader |
| 5 | CSV (Comma Separated Values) |
| 6 | bufferedreader. |
| 7 | FileReader |
| 8 | File Descriptor |
| 9 | printStackTrace |
| 10 | IOexception. |
| 11 | Import File (java.io) | Java: Read Text File Easily | **https://www.youtube.com/watch?v=lHFlAYaNfdo** |
| 12 | Scanner |
| 13 | new Scanner |
| 14 | scan.nextLine |
| 15 | While loop |
| 16 | For loop |
| 17 | scan.hasNextLine |
| 18 | String fileContent |

### **Phần 3: Lập trình hướng đối tượng**

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| Bài 9. Lớp và Đối tượng | | | |
| **STT** | **Keyword** | **Name video** | **Link video** |
| 1 | procedural programming | Writing Your Own Objects | [Meet Objects | Module 2 | Building Your Own Objects | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@5b131bb9971546939594f5570eab5b00/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@ca1ecbc1744f47a0b372a389116a1c3a) |
| 2 | object oriented programming |
| 3 | OOP |
| 4 | Why Objects |
| 5 | Object Definitions |
| 6 | class |
| 7 | object (instance) |
| 8 | Making Objects in a Client | Clients vs Objects | [Meet Objects | Module 2 | Building Your Own Objects | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@5b131bb9971546939594f5570eab5b00/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@7580ac8522ea44fe9f4958c6ecbec18f) |
| 9 | Manipulating Objects in a Client |
| 10 | create new instances |
| 11 | State - Fields | Anatomy of an Object | [Anatomy of an Object | Module 2 | Building Your Own Objects | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@f6331af8e75c484993c20b9a06fcf849/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@14650beb24634829bc060da1ef51eaea) |
| 12 | Constructor |
| 13 | Behavior - Methods |
| 14 | This keyword |
| 15 | equals method |
| 16 | Default constructor |
| 17 | Overloading constructor |
| 18 | The static keyword | What is Static | [What is Static | Module 2 | Building Your Own Objects | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@8ee32b934b1244598c6929b7be949f05/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@7edb7e8320b14d54ba3b4d6095c96653) |
| 19 | Static Fields |
| 20 | Static Methods |

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| Bài 10. Tính đóng gói | | | |
| **STT** | **Keyword** | **Name video** | **Link video** |
| 1 | abstraction | What is Encapsulation | [Encapsulation | Module 2 | Building Your Own Objects | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@b39e3626371e4fc39cfb382d48b89e74/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@48c0d62ba96e4011b2280952f55bdfd6) |
| 2 | encapsulation |
| 3 | Hiding data |
| 4 | public | Public vs Private | [Encapsulation | Module 2 | Building Your Own Objects | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@b39e3626371e4fc39cfb382d48b89e74/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@dd23f86575c84fc3b148cd5594620d31) |
| 5 | private |
| 6 | Private Methods |
| 7 | Private Constructors |
| 8 | Accessing Private Elements |
| 9 | Accessors | Accessor and Mutator Methods | [Encapsulation | Module 2 | Building Your Own Objects | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@b39e3626371e4fc39cfb382d48b89e74/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@c82cd9515476464696524b5ab9559858) |
| 10 | Mutators |

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| Bài 11. Tính thừa kế | | | |
| **STT** | **Keyword** | **Name video** | **Link video** |
| 1 | inheritance | Introduction to Inheritance | [What is Inheritance | Module 3 | Object Inheritance | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@85c7a4e754db4806ad172094ae67efa1/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@9416f9007f0c4e9ea0427d9687cbb775) |
| 2 | subclasses |
| 3 | super classes |
| 4 | Extends Syntax |
| 5 | Overriding |
| 6 | Code Relationships | Is a vs Has a | [What is Inheritance | Module 3 | Object Inheritance | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@85c7a4e754db4806ad172094ae67efa1/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@2f026f034e6840f6badbc2294597dd49) |
| 7 | "is-a" relationships move up the tree |
| 8 | Has a |
| 9 | The super Keyword | What is Super | [Super | Module 3 | Object Inheritance | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@883972f6f8ec41a68ef94f7dbf7c75d6/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@094664b509ae4f44a66abd539a0d6483) |
| 10 | super class |
| 11 | Inheriting Constructors |
| 12 | Coding with Super | Using Super | [Super | Module 3 | Object Inheritance | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@883972f6f8ec41a68ef94f7dbf7c75d6/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@daf5e650e96b4f928924a0c4fa27e93b) |

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| --- | --- | --- | --- |
| Bài 12. Đa hình và trừu tượng | | | |
| **STT** | **Keyword** | **Name video** | **Link video** |
| 1 | polymorphic | Polymorphism | [Polymorphism | Module 3 | Object Inheritance | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@b1d47cfe0c154616a04b3c4852b5bc3b/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@c537ce1616bc483fa8ebd6d7046a035a) |
| 2 | is-a relationships |
| 3 | abstract class | Abstract | [Abstract Classes | Module 3 | Object Inheritance | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@faf4570aa8d042e5bc3e96b71444c9da/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@299aaf9f69d747299f9d1ecf07041a7c) |
| 4 | abstract methods |
| 5 | interface | Interfaces | [Interfaces | Module 3 | Object Inheritance | Object Oriented Programming in Java | edX](https://learning.edx.org/course/course-v1:Microsoft+DEV277x+1T2019/block-v1:Microsoft+DEV277x+1T2019+type@sequential+block@aa3e29ce40bc4b2c93fdb35d37387e1b/block-v1:Microsoft+DEV277x+1T2019+type@vertical+block@a0a3555416a2461098c43f20502fa711) |
| 6 | Multiple Inheritance |
| 7 | Abstract class vs Interface |
| 8 | implements |
| 9 | Comparable interface |
| 10 | Iterable interface |
| 11 | List interface |