



Java Basics

Training Assignments

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RECORD OF CHANGES

No	Effective Date	Change Description	Reason	Reviewer	Approver
1.	01/Oct/2018	Create new	Draft	DieuNT1	VinhNV
2.	01/Jun/2019	Fsoft Template	Update	DieuNT1	VinhNV

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	CODE:	JAVA.M.A201
	TYPE:	MEDIUM
	LOC:	200
	DURATION:	120 MINUTES

Day 2. Assignment 2: Flow Controls

Objectives:

- » Understand basic concept about OOP.
- » Working with control flows: if, for, do..while, while.

Assignment Specifications:

Create a class to represent a **Course** type in java, which should have following:

Instance variables:

- » **course code:** course id, String type
- » **course name:** course name, String type
- » **duration:** course duration, double type
- » **status:** status course, String type
- » **flag:** mark the course is optional or required, String type

Constructor:

- » **No-argument constructor:** set all attribute with a default value of 0.0 or null.
- » **Constructor:** that accept 5 arguments for attributes.

Instance methods:

- » Getter/setter methods.
- » Overriding toString() method to print student detail.
- » **public void input():**This method to enter values for Course from information from the keyboard.

Create a new class named CourseManagement with a main() method.

Business Rules:

- » **course code:** is a string of 5 characters, started by "FW" and followed by 3 digits.
- » **status:** only accept 'active' or 'in-active'.
- » **flag:** only accept 'optional', 'mandatory', 'N/A'.

Problem Descriptions:

Requirement: write a java console program.

- a. Create an array of 10 courses and input data from the keyboard. Invalid values require repeat re-input until the correct value.
- b. Search courses by one of the attributes (method named: find(String type, Object data). In which, the type: attribute name, the data: data for search.
- c. Display all courses that flag is "mandatory".

Guidelines:

- » Create a project named **Java.M.A201**, create package ***fa.training.entities*** that contains **Course** class, ***fa.training.utils*** that contains **Validator** class for validation.
- » Create a new package named ***fa.training.main*** contains **CourseManagement** class.