

WEP 2021 – QUIZ CHAPTER 3

{2h00}

18 OCT 2021

EXERCICES	POINTS
THEORY (15 min)	10
EXERCICE-1 (15 min)	10
EXERCICE-2 (01h30)	80

You need to submit on google classroom:

1. Your UML diagrams
2. Your Typescript project

THEORY (10 points)

Fill up the following form:

<https://forms.gle/u1JGgDvE6Tity1ub9>

EXERCICE-1 (10 points)

A house has many chairs, but we also want to keep for each chair, to which house it belong to :



Q1 Complete the method add Chair to:

- Add a new chair to the House
- Set the House reference on Chair class

EXERCICE-2 (80 points)



We describe a library system as follows:

LIBRARY has :

- a name
- An address
- Books in the library

BOOK has :

- a title
- year of published
- authors, a book can be written by one or many authors
- publisher, a book can have a publisher or not

PUBLISHER has :

- a name
- a address

+ **AUTHOR** has :

- name

Q1 Open file **UML-STUDENT.pttx** and create the class with relationship including the following requirements:

- **Visibilities (public/private)**
- **Multiplicities**

Q2 From the **UML Diagram** implement the classes and they relationship in **Typescript**

Q3 Inside the **class Book**, create some methods as the following:

- **addAuthor(author:Author)** add an author to the book

- `setPublisher(publisher:Publisher)` set publisher of book

Q4 Inside the **class Library**, create **some method** as the following:

- `addBook(book:Book)` adding a book to the library
- `getBookFromAuthor(authorName:string) : Book[]` get books from given author name
- `getBookFromPublisher(publisher:string) : Book[]` get books from given publisher name

Example: `getBookFromAuthor('ronan')` will get result

Title	Year	Author
Essential Typescript	2018	ronan
Beginning Vue.js 3	2015	ronan

Example: `getBookFromPublisher('abc')` will get result

Title	Year	Publisher
Essential Typescript	2018	abc
Effective Typescript	2015	abc
Beginning Vue.js 3	2020	abc
Build Web Frontend with Vue 2	2017	abc

Q5 Create the following **instances**:

Book

Title	Year	Author	Publisher
Essential Typescript	2018	Ronan	abc
Effective Typescript	2015	Mike Steve	abc
Beginning Vue.js 3	2020	Ronan	abc
Build Web Frontend with Vue 2	2017	Mike Steve	abc

Library

Name	Address	Books
abc	Phnom Penh	Essential Typescript
		Effective Typescript
		Beginning Vue.Js 3
		Build Web Frontend with Vue 2