

Lesson 2024.11.04 Mon – Exercises

Constructors in Java

Student Name : _____

Score : __ / 100

Due by : 2024.11.08 Fri

NOTE : submit your code on TEAMS

Implement the Java constructors for the following exercises :

Exercise 1: Basic Constructor

Objective: Create a simple class with a constructor.

1. Create a class named `Book` . It should have the following instance variables:
 - `String title`
 - `String author`
 - `int pages`
2. Implement a constructor that initializes all three instance variables.
3. Add a method `displayInfo()` that prints the book's details.

Exercise 2:

Objective: Understand default and parameterized constructors.

1. Create a class named `Car`. It should have the following instance variables:
 - `String make`
 - `String model`
 - `int year`
2. Implement a default constructor that initializes `make` to `"Unknown"`, `model` to `"Unknown"`, and `year` to `0`.
3. Implement a parameterized constructor that initializes all three instance variables.
4. Add a method `displayCarInfo()` to show the car details.

Exercise 3: Constructor Overloading

Objective: Learn about constructor overloading.

1. Create a class named `Rectangle`. It should have instance variables for `length` and `width`.
2. Implement two constructors:
 - A default constructor that sets `length` and `width` to `1`.
 - A parameterized constructor that takes two arguments to initialize `length` and `width`.
3. Add a method `area()` that returns the area of the rectangle.
4. Add a method `displayRectangleInfo()` to print the length, width, and area.