Assignment: Class in JavaScript

TASK 1

Problem Statement 1: Create a Constructor for a Person

Write a JavaScript function constructor named **Person** that takes two parameters, name, and age, and Add a method to the prototype to display **name and age**. Then, create two instances of Person and display their names and ages.

Ans) JavaScript: link

TASK 2

Problem Statement 2: Implement a Bank Account

Create a constructor function named **BankAccount** that initializes a bank account with an initial **balance**. Include methods for depositing and withdrawing money from the account. Write code to demonstrate these operations on a bank account object.

Ans) JavaScript: link

TASK 3

Problem Statement 3: Create a Constructor for a Book

Design a constructor function called **Book** that takes **title and author** as parameters. Add a method to the prototype of the Book that displays the book's information. Create at least two book instances and display their information.

Ans) JavaScript: link

TASK 4

Problem Statement 4: Implement Task 1 using Class.

Design a JavaScript class called **Person** with properties for **name and age**. Implement a method to display the person's name and age. Then, create instances of Person and display their information.

Ans) JavaScript: link

TASK 5

Problem Statement 5: Implement a Calculator Class

Create a class called Calculator that initializes two values value1 and value2 to store numbers. Add methods for add, subtract, multiply, and divide. Perform and show operations.

Ans) JavaScript : link

TASK 6

Problem Statement 6: Design a Class for a Geometric Shape

Design a class called **Shape** that can represent various geometric shapes. Implement subclasses for specific shapes like **Circle, Rectangle, and RightTriangle**. Each subclass should have properties of that shape (e.g.. Width, height for a rectangle) and methods for calculating the area and perimeter of the shape. Create instances of these shapes and calculate their areas and perimeters.

Ans) JavaScript : link

TASK 7

Problem Statement 7: Implement a Library System

Create a class called **Library** that can manage a collection of books. Each book should be represented as an instance of a **Book** class (with properties like title, author, and availability). Implement methods in the Library class to add books, check out books, and return books. Keep track of the books available.

Ans) JavaScript : link