Check code on my Github link - https://github.com/Narotam-Mishra/advanced-js-p2-assignments-pw

Below all screenshots of the code output

```js
    Create an object constructor Person that takes name and age as parameter a
    greet the person
    */


    // Define the Person constructor
    function Person(name, age) {
      this.name = name;
      this.age = age;
    }

    // Add the sayHello method to the Person prototype
    Person.prototype.sayHello = function () {
      console.log(`Hello, my name is ${this.name} and I am ${this.age} years c
    };

    // Create a new instance of Person
    let person1 = new Person("John", 30);

    // Call the sayHello method
    person1.sayHello();

```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS   SQL CONSOLE   POSTMAN CONSOLE   COMMENTS

```
● PS C:\Users\Narotam\Desktop\Web-Dev_Learning\PW_Skills_Assignments\Advanced_JS_p2_Assignments> node
  ssignments\Problem1.js"
  Hello, my name is John and I am 30 years old.
○ PS C:\Users\Narotam\Desktop\Web-Dev_Learning\PW_Skills_Assignments\Advanced_JS_p2_Assignments>
```

JS Problem2.js ✕

JS Problem2.js > ...

```javascript
 4    Create a constructor Employee that inherits from the Person constructor of p
      a method getDetails() to display the employee details.

 5

 6    */

 7

 8    // Define the Person constructor
 9    function Person(name, age) {
10        this.name = name;
11        this.age = age;
12    }

13

14    // Add the sayHello method to the Person prototype
15    Person.prototype.sayHello = function () {
16        console.log(`Hello, my name is ${this.name} and I am ${this.age} years old
17    };

18

19    // Define the Employee constructor that inherits from Person
20    function Employee(name, age, designation) {
21        // Call the Person constructor to initialize name and age
22        Person.call(this, name, age);
23        this.designation = designation;
24    }
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS   SQL CONSOLE   POSTMAN CONSOLE   COMMENTS

● PS C:\Users\Narotam\Desktop\Web-Dev_Learning\PW_Skills_Assignments\Advanced_JS_p2_Assignments> node "
  ssignments\Problem2.js"
  Hello, my name is Alice and I am 25 years old.
  Employee: Alice, Age: 25, Designation: Manager
○ PS C:\Users\Narotam\Desktop\Web-Dev_Learning\PW_Skills_Assignments\Advanced_JS_p2_Assignments>

```js
/*
Create an object Calculator with methods add, subtract, multiply, and divide. D
within these methods such that method chaining of add, subtract, multiply and d
*/

// Define the Calculator object with methods
let Calculator = {
  result: 0,

  // Method to add a number to the result
  add: function (num) {
    this.result += num;
    // Return 'this' to enable method chaining
    return this;
  },

  // Method to subtract a number from the result
  subtract: function (num) {
    this.result -= num;
    return this;
  },
```

```js
    3
    4    Define a base class Shape with a method draw. Create two subclasses Circle an
    5    the draw method. Demonstrate polymorphism using instances of these classes.
    6
    7    */
    8
    9    // Define the Shape base class as template
   10    class Shape {
   11      constructor() {
   12        this.type = "Shape";
   13      }
   14
   15      // Method to draw the shape (base implementation)
   16      draw() {
   17        console.log(`Drawing a ${this.type}`);
   18      }
   19    }
   20
   21    // Define the Circle subclass extending Shape
   22    class Circle extends Shape {
   23      constructor(radius) {
   24        super();
   25        this.type = "Circle";
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS   SQL CONSOLE   POSTMAN CONSOLE   COMMENTS

```
● PS C:\Users\Narotam\Desktop\Web-Dev_Learning\PW_Skills_Assignments\Advanced_JS_p2_Assignments> node "c:
  ssignments\Problem4.js"
  Drawing a Circle with radius 5
  Drawing a Rectangle with width 10 and height 8
  Drawing a Circle with radius 3
  Drawing a Rectangle with width 7 and height 4
  PS C:\Users\Narotam\Desktop\Web-Dev_Learning\PW_Skills_Assignments\Advanced_JS_p2_Assignments>
```

```javascript
      Create a simple polyfill for the Array.includes method by the name of custo

   */


   // Define customIncludes method on Array prototype

   Array.prototype.customIncludes = function (element) {
     // Loop through each element in the array
     for (let i = 0; i < this.length; i++) {
       // Check if the current element is equal to the element being searched
       if (this[i] === element) {
         return true; // Element found, return true
       }
     }
     return false; // Element not found, return false
   };

   let arr = [5,4,7,6,3,1,2];

   console.log(arr.customIncludes(7));
   console.log(arr.customIncludes(9));
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS   SQL CONSOLE   POSTMAN CONSOLE   COMMENTS

```
PS C:\Users\Narotam\Desktop\Web-Dev_Learning\PW_Skills_Assignments\Advanced_JS_p2_Assignments> node
ssignments\Problem5.js"
true
false
PS C:\Users\Narotam\Desktop\Web-Dev_Learning\PW_Skills_Assignments\Advanced_JS_p2_Assignments>
```