JavaScript -Task2

1. Welcome Program
- Ask user name using prompt().
- Show alert: Hi , Welcome to JavaScript Training.
- Print the same message in console.
Ans:
```
let Name = prompt("Please Enter your Name:");
let message = ("Hi " +Name+", Welcome to javascript Training");
alert(WelcomeMessage);
console.log(WelcomeMessage);
```
Output: Hi Harish, Welcome to javascript Training

2. Console Methods Practice
- Print 500 using console.log(), console.warn(), console.error().
- Use console.clear().
Ans:
```
console.log(500);
console.warn(500);
console.error(500);
console.clear();
```

Output: 500
!500
X500(error)
console cleared

3. Data Type Identification
- Create string, number, boolean, undefined, and null variables.
- Print value and type using typeof.
Ans:
```
let Name = "Harish";
let age = 22;
let LearningJavaScript = true;
let city;
let result = null;
console.log(Name, typeof Name);
console.log(age, typeof age);
console.log(LearningJS, typeof LearningJS);
console.log(city, typeof city);
console.log(result, typeof result);
```

Output:
Harish string
22 'number'
true 'boolean'
undefined 'undefined'
null 'object'

4. Arithmetic Operations
- Use let a = 20 and let b = 5.
- Perform +, -, *, /, %, ** and print results.
Ans:

```
let a= 20;
let b= 5;
console.log(a+b);
console.log(a-b);
console.log(a*b);
console.log(a/b);
console.log(a%b);
console.log(a**b);
```

Output:
25
15
100
4
0
3200000

5. Increment & Decrement
- Demonstrate pre-increment, post-increment, pre-decrement, post-decrement.
- Print variables clearly.
Ans:

```
let x = 10;
console.log("Pre-Increment (++x):", ++x);
console.log("pre-increment:", x);

console.log("Post-Increment (x++):", x++);
console.log("post-increment:", x);

console.log("Pre-Decrement (--x):", --x);
console.log("pre-decrement:", x);

console.log("Post-Decrement (x--):", x--);
console.log("post-decrement:", x);
```

output:
Pre-Increment (++x): 11
pre-increment: 11
Post-Increment (x++): 11
post-increment: 12
Pre-Decrement (--x): 11
pre-decrement: 11
Post-Decrement (x--): 11
post-decrement: 10

6. Assignment Operators
- Use let num = 10.
- Perform +=, -=, *=, /=, %= and print results.
Ans:

```
let num = 10;
num += 5;
console.log("num=num + 5 = ", num);
num -= 5;
console.log("num=num - 5 = ", num);
num *= 5;
console.log("num=num * 5 = ", num);
num /= 5;
console.log("num=num / 5 = ", num);
num %= 5;
console.log("num=num % 5 = ", num);
```

Output:

```
num=num + 5 =  15
num=num - 5 =  10
num=num * 5 =  50
num=num / 5 =  10
num=num % 5 =  0
```

7. Array Access
- Create array ['HTML','CSS','JavaScript','React'].
- Print first element, second element, last element (using length), and total elements.
Ans:

```
let Arr = ['HTML', 'CSS', 'JavaScript', 'React'];

console.log("First element:", Arr[0]);
console.log("Second element:", Arr[1]);
console.log("Last element:", Arr[Arr.length - 1]);
console.log("Total elements:", Arr.length);
```

Output:

```
First element: HTML
Second element: CSS
Last element: React
Total elements: 4
```

8. Modify Array
- Add one element at end.
- Remove last element.
- Print updated array.
Ans:

```
let Arr = ['HTML', 'CSS', 'JavaScript', 'React'];
Arr.push('NodeJS');
console.log(Arr);
Arr.pop();
console.log(Arr);
```

Output:
['HTML', 'CSS', 'JavaScript', 'React', 'NodeJS']
['HTML', 'CSS', 'JavaScript', 'React']

9. Student Object
- Create object with name, age, course, city.
- Print values using dot notation.
Ans:

```
  let student = {
  name: "Harish",
  age: 22,
  course: "JavaScript",
  city: "Salem"
};
console.log("Name:", student.name);
console.log("Age:", student.age);
console.log("Course:", student.course);
console.log("City:", student.city);
```

output:
Name: Harish
Age: 22
Course: JavaScript
City: Salem

10. Nested Object Practice
- Create company object with nested trainer object.
- Print company name, trainer name, trainer subject.
Ans:

```
let company = {
  name: "The stackly",
  trainer: {
    name: "Naveenkumar",
    subject: "JavaScript"
  }
};
console.log("Company Name:", company.name);
console.log("Trainer Name:", company.trainer.name);
console.log("Trainer Subject:", company.trainer.subject);
```

output:
Company Name: The stackly
Trainer Name: Naveenkumar
Trainer Subject: JavaScript