1. Suppose you are building a payment check-out page and must display the final price after the discount.

Create a simple discount calculator that takes two values from the variables - the total cost and the

discount percentage - and prints the discounted value.

ANS-

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
    let x=prompt('enter value1');
    let y=prompt('enter value2');
    let discount_amount = (y / 100) * x;
    let discounted_price = x - discount_amount;
    if(y<0||y>100)
        console.log("Invalid discount percentage. Please enter a value between
0 and 100.");


    else{
    console.log(`total_cost:${x}`);
    console.log(`Discount Percentage: ${y}%`);
    console.log(`Discounted Amount: ${discount_amount}`);
    console.log(`Discounted Price: ${discounted_price}`);}


    </script>

</body>
</html>
```

2. You are building a simple login system. Implement the login feature that has two variables: username and

Password. You should check if the username is "admin" and the password is "12345".If both - conditions are

true, print "Login successful" otherwise, print "Invalid credentials."

ANS-

```
<!DOCTYPE html>
<html lang="en">
```

```
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
        let x=prompt("username");
        let y=prompt("password");
        if(x=="admin"&& y==12345){
            document.write("login successfukl");
        }
        else{
            document.write("invalid credential");
        }
    </script>

</body>
</html>
```

You are working on a currency conversion application Write a program that has a variable which stores the

amount in Indian Rupees (INR) and prints the equivalent amount in US Dollars (USD). Use the current

exchange rate of 1 USD = 82 INR.

ANS-

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
   <script>
   let exchange_rate=82;
   let amount_inr=prompt("enter the amount of INR");
   let amount_usd=(amount_inr/exchange_rate);
   let integer=Math.trunc(amount_usd);
   document.write(`amount_usd :${integer}`);
   </script>

</body>
</html>
```

4. You are developing a booking application for a cinema. The ticket price depends on the type of the viewer("child", "adult", or "senior"). Write a program which calculates the price accordingly and prints the total

price to be paid. Let's assume the ticket price for a child is Rs 100, adult ticket price is Rs 150 and ticket price for a senior is Rs 120.

ANS-

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
        let child_number=prompt("number of child");
        let adult_number=prompt("number of adult");
        let senior_number=prompt("number of senior");
        let child_price=100;
        let adult_price=150;
        let senior_price=120;
        let
total_price=child_number*child_price+adult_number*adult_price+senior_number*se
nior_price;
        document.write(`total_price:${total_price}`);
    </script>

</body>
</html>
```

5. You are developing a form validation system. Write a program that takes user information(such as name, email, age) and uses the type of operator to check the data type of each input. Print appropriate messages like "Name should be a string," "Email should be a string," or "Age should be a number." if any field is not proper.

ANS-

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <Script>
```

```
        X=prompt("enter name");
        y=prompt("enter email");
        z=prompt("enter age");
        if(x==typeof(string))
        {
            document.write("name is string");
        }
        else if(y==typeof(string)){
            document.write("email is string");
        }
        else if(z==typeof(number)){
            document.write("age is number");
        }
        else{
            document.write("document is invalid")
        }


    </Script>

</body>
</html>
```

6. You are building a simple shopping list app. You have the items name in an array. Write a program that uses a for loop to print all the items in the shopping list array.

Ans-

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
        let shoppinglist=["pen","paper","medicin","musterd
oil","kaju","kismis"];
        for(let i=0;i<shoppinglist.length;i++){
            document.write(shoppinglist[i]+" ");
        }
    </script>
</body>
</html>
```

8. You are creating a countdown app. Implement a program that uses a while loop to count down from 10 to 1 and prints each number.

Ans-
```
!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
        document.write("Counting From 10 to 0->>\n");
let i = 0;

while (i <= 10) {
  document.write(i+"  ");
  i++;
}
    </script>
</body>
</html>
```

9.You are given an array of numbers and strings. Your task is to find the first string in the array. On finding the first string print “Found the First String” and its value.

Ans-

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
        const
arr=[1,2,96,67,6,"souvik",7,90,"subhadeep",65,64,"fret",98,"koushik"];
        for(let i=0;i<arr.length;i++){
            if (typeof arr[i]==="string"){
                document.write(`found the first string:${arr[i]}`);
            }
        }
    </script>
</body>
</html>
```

10. You are Given with an array of numbers both positive and negative. Your task is to print only the positive NUMBER

ANS-

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
        let arr=[1,2,3,4,-1,-4,-6,7,-5,9];
        for(let i=0;i<arr.length;i++){
            if(arr[i]<0){
                continue;
            }
            document.write(i);
        }
    </script>
</body>
</html>
```