Answer

1. **Create a function to print an equilateral triangle**

```
Function triangle (){

Let star="";

For(let i=0;i<5;i++){

        For(let j=0;j<=1;j++){

                Star +="*";

        }

}

triangle();
```

2. Write a function to sort an array

```
let arr=[5,3,8,1,2];

function sortArray(arr){

    for(let i=0;i<arr.length;i++){

      for(let j=0;j<arr.length-1;j++){

        if(arr[j]>arr[j+1]){

          let temp=arr[j];

          arr[j]=arr[j+1];

          arr[j+1]=temp;

        }

      }

    }

    console.log(arr);

}

sortArray(arr);
```

4. Write a function to find the maximum number and second maximum number

```javascript
let arrNumber=[5,1,8,3,8,2];
function findMaxNumber(arrNumber){
  let maxNumber=arrNumber[0];
  let sMaxNumber=arrNumber[0];
  for(let i=1;i<arrNumber.length;i++){
    if(arrNumber[i]>arrNumber[i+1]){
      maxNumber=arrNumber[i];
    }

    if(arrNumber[i]>arrNumber[i+1] && arrNumber[i+1]<maxNumber ){
    sMax=arrNumber[i];
  }
  }
  console.log(maxNumber);
  console.log(sMaxNumber);
}
findMaxNumber(arrNumber);
```

10. b. SQL Injection

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8.a. Content-Security-Policy

10.b.SQL injection

12. Mysql

1. data type and length in all the above tables' fields

```
Create table staffs (
    id Int(11) primary key auto_increment,
    name varchar(100) not null,
    sex enum('m', 'f') not null,
    date_of_birth date not null,
    address varchar(255),
    phone varchar(20)
);
create table positions (
    id INT(11) primary key auto_increment,
    staff_id int(11) not null,
    position varchar(100) not null,
    start_date date not null,
    end_date date null,
    foreign key (staff_id) references staffs(id)
);
```

2. Write a raw query to select data for the following list.

```
select
  s.id AS 'Staff ID',
    s.name AS 'Name',
    s.sex AS 'Sex',
    s.date_of_birth AS 'Date of Birth',
    s.address AS 'Address',
    s.phone AS 'Phone',
```

```sql
    p.position AS 'Current Position'
    FROM
    staffs s
    LEFT JOIN
    positions p ON s.id = p.staff_id
```

2.
```sql
SELECT
    s.id AS 'Staff ID',
    s.name AS 'Name',
    s.sex AS 'Sex',
    s.date_of_birth AS 'Date of Birth',
    s.address AS 'Address',
    s.phone AS 'Phone',
    p.position AS 'Current Position', Worked'
FROM
    staffs s
JOIN
    positions p ON s.id = p.staff_id
WHERE
    (p.end_date > 5)
```

3. Write a function to check whether a given number is a prime number
```javascript
function isPrime(n) {
    if (n <= 1) return false;
    if (n === 2) return true;
    if (n % 2 === 0) return false;
    return true;
}
```
11.write javascript

```javascript
function countWorkingDays(year) {

    let totalDays = 0;

    return totalDays;

}


console.log(countWorkingDays(2024));
```

5. Database Optimization

```sql
SELECT

    customers.id,

    customers.name

FROM

    customers

JOIN

    orders ON customers.id = orders.customer_id
```