**ARRAYS :**

1. Find all Pairs of elements in an array whose sum is equal to a specified number

<https://javarevisited.blogspot.com/2014/08/how-to-find-all-pairs-in-array-of-integers-whose-sum-equal-given-number-java.html#axzz6tEJ4cCsx>

[2,4,3,5,6,-2,4,7,8,9]

Sum =7

1. Union and Intersection of two sorted arrays

{1, 3, 4, 5, 7}

{2, 3, 5, 6} 🡺 Union : {1, 2, 3, 4, 5, 6, 7}

Intersection : {3, 5}

<https://www.geeksforgeeks.org/union-and-intersection-of-two-sorted-arrays-2/>

1. Most frequent element in an array

arr[] = {1, 3, 2, 1, 4, 1,4,3}

<https://www.geeksforgeeks.org/frequent-element-array/>

1. Find duplicate element in an array of positive int [1,2,3,4,5,4]==>only one element is repeated.

O(n)=> turn the array negative or sumOfAll - (length\*length-1)/2

int val = (A[i] < 0) ? -A[i] : A[i];

if (A[val-1] >= 0) {

A[val-1] = -A[val-1];

}else{

// if element is already negative, it is repeated

}

1. Find smallest and largest word in a string

“Which programming language do you prefer”

<https://www.geeksforgeeks.org/program-find-smallest-largest-word-string/>

1. Sort an array containing 0s,1s and 2s

<https://www.geeksforgeeks.org/sort-an-array-of-0s-1s-and-2s/>

O(n)=> int s=0,mid=0,p=1,end=len-1

while(mid>end){

If mid>p==>2

If mid<p==>0

Else 1

}

1. Add 1 to number represented as array | Recursive Approach-- <https://www.geeksforgeeks.org/add-1-number-represented-array/>
2. Example of singleton class.
3. Add two numbers without +: increment
4. <https://www.geeksforgeeks.org/convert-number-to-words/> 623 AS SIX HUNDRED TWENTY THREE (MAX 4 DIGITS)
5. @Transactinal,@Confiuration,@Bean,@GeanaeratedValue?
6. Number variable and check whether number is palindrome or not.

**while**(n>0){

r=n%10; //getting remainder

sum=(sum\*10)+r;

n=n/10;

}

1. Find the missing element from an array of n elements. [1,2,4,5,6]-> n = 6

// actual size is arr.length + 1 since a number is missing from the array

int m = arr.length + 1;

// get sum of integers between 1 to arr.length + 1

int total = m \* (m + 1) / 2;

// get actual sum of integers in the array

int sum = Arrays.stream(arr).sum();

// the missing number is the difference between the expected sum

// and the actual sum

return total - sum;

}

# How to swap two numbers without using a temporary variable?

# x = x + y;y = x - y;x = x - y;

1. If **145** is the given number and **4** is the given digit, then you should find the largest number less than **145** such that it should not contain **4** in it. In this case, **139** will be the answer.
2. Write a Java program to get the difference between the largest and smallest values in an array of integers. The length of the array must be 1 and above <https://www.w3resource.com/java-exercises/array/index.php>
3. Write a Java program to check if a given array contains a subarray with 0 sum Eg: nums1= { 1, 2, -2, 3, 4, 5, 6 } nums2 = { 1, 2, 3, 4, 5, 6 } nums3 = { 1, 2, -3, 4, 5, 6 }
4. Check if string is **rotated**

<https://www.javatpoint.com/java-program-to-check-whether-one-string-is-a-rotation-of-another>

**I/P:** Accessories, soriesacces

1. List of employees with {id,firstname,lastname,salary}. Two functions to sort:
   1. All employees in desc order of name(firstname+lastname)
   2. All employees in asc order of salary
   3. All employees in asc of salary, if salary is same, by name

//The Comparable interface has **compareTo(T obj)** method which is used by sorting methods- default by id. Different : Comparator, we can define multiple methods with different ways of sorting and then chose the sorting method based on our requirements.

1. Find all employees eligible for gratuity and age less than 60

List of employees Elist = [{

Id: 12, name: “john”, age:35, doj:’06-25-2015’}, {

Id: 13, name: “warner”, age:45, doj:’08-30-2014’}, {

Id: 14, name: “pooja”, age:60, doj:’11-01-1998’}, {

Id: 15, name: “Alex”, age:24, doj:’01-22-2020’}]



(a) Inorder (Left, Root, Right) : 4 2 5 1 3

(b) Preorder (Root, Left, Right) : 1 2 4 5 3

(c) Postorder (Left, Right, Root) : 4 5 2 3 1

1. **Define Application context module?**

This is a very important module and supplies various necessary services like EJB integration, remoting, JNDI access and scheduling. It transforms spring into a framework. It also broadens the idea of BeanFactory by application of lifecycle events, providing support for internationalization messages and validation.

<https://levelup.gitconnected.com/tricky-java-interview-questions-cfc546fd03ab>

<https://dzone.com/articles/10-java-interview-questions-from-investment-banks>

<https://talent500.co/blog/java-tricky-interview-questions/>

<https://javarevisited.blogspot.com/2011/11/collection-interview-questions-answers.html#axzz7HBIZDtsb>

<https://www.edureka.co/blog/interview-questions/typescript-interview-questions/>

**JAVASCRIPT :**

1. var obj = {

foo: "bar",

func: function() {

var self = this;

console.log("outer func: this.foo = " + this.foo);//bar

console.log("outer func: self.foo = " + self.foo);//bar

(function() {

console.log("inner func: this.foo = " + this.foo);//undef

console.log("inner func: self.foo = " + self.foo);//bar

}());

}

};

myObject.func();

1. Different ways of creating an object in JS:
   1. var d = new Object();
   2. var a = Object.create(null);
   3. var b = {};
   4. var Obj = function(name) {

this.name = name

}

var c = new Obj("hello");

**SQL :**

1. Select \* from table\_A where id in (select id from table\_A where name=’some value’)?
2. Select all employees whose address has “street” in it.(case sensitive)
3. Write an SQL query to get the third maximum salary of an employee from a table named employee\_table.--> SELECT TOP 1 salary FROM ( SELECT TOP 3 salary FROM employee\_table ORDER BY salary DESC ) AS emp ORDER BY salary ASC;
4. Table of employees(email,name,id,salary)-> get the email and domain→ SELECT email, SUBSTRING( email, CHARINDEX('@', email)+1, LEN(email)-CHARINDEX('@', email) ) domain FROM sales.customers.
5. I have an Employee table with columns : Id, Name, Manager\_Name: count of employees under each manager.
6. Query to get employee name starting with vowel

Select empid, empname from employee where empname like '[aeiou]%'

**DESIGN :**

1. Design a sudoku game.
2. Design a snake and ladder game.
3. Design a instagram page(signup,follow a person, followers,photo upload, photo share).
4. Design a tic tac toe game.
5. Implement a vending machine that has a bunch of products, e.g. chocolates, candy, cold drinks, and accepts different coins of 5,10,1,2 rs. Make sure you insert a coin, get a product back, and get your change back.
   1. Accepts coins of 1,2,5,10 rs
   2. Allow user to select products Coke(20), Pepsi(35), Candy(15)
   3. Allow user to take refund by canceling the request.

https://ultimatecourses.com/blog/master-your-next-angular-job-interview-with-these-questions