

## Cvent Interview-Experience

### Round 1: (Online Aptitude Round)

- 30 MCQ based on Java, C/C++, DBMS(Transactions, Sql queries, constraints etc. ) and Mathematics(Trigonometry and Volume).
- Duration: 30 minutes
- No Negative Marking

### Round 2: (Online Coding Round)

- 1 Question on Codility Platform ( One time submit ).
- Take your time, understand the hidden constraint.
- Duration: 60 minutes, any preferred language
- **Question:**  
There are two arrays X and Y consisting whole numbers, we need to find the count of the maximum occurring fraction.  
If X and Y are of different sizes, return 0.  
Do not assume any floating-point precision.

#### Example

**Input:** X = {1,2,3,4,5}, Y = {2,4,6,8,10}

**Output:** 5

**Explanation:** 5 fractions, ( $1/2$ ,  $2/4 = 1/2$ ,  $3/6 = 1/2$ ,  $4/8 = 1/2$ ,  $5/10 = 1/2$ )  
Each fraction is equivalent to  $1/2$ , thus output is 5.

**Input:** X = {2,3,4,6}, Y = {6,4,8,18}

**Output:** 2

**Explanation:** 4 fractions, ( $2/6 = 1/3$ ,  $3/4$ ,  $4/8 = 1/2$ ,  $6/18 = 1/3$ )  
fraction  $1/3$  is occurring maximum no of times, thus output is 2.

### Round 3:

- **Cvent-Criteria Cognitive Aptitude Test (CCAT)**
  - 50 pure aptitude questions (logical and verbal reasoning)
  - Duration: 22 minutes
  - Level: Easy
  - No Negative Marking
- **Psychometric Test**
  - 140 Personality based questions

## Round 4: ( Technical Round I )

*Duration: 1 hour 15 minutes*

- Discussion on my projects. Many questions were asked from the projects only.  
As I have done a project using Django-Frameworks, questions were asked about middlewares ( functionality of each middleware, why specific order is maintained for middlewares), Why python? , Web Portal vs Web Application, questions on schema and normalization, etc.
- WAP to find the equilibrium point in an array.
- WAP to check whether two BSTs evaluates to an equal sum.
- How a URL is resolved? ( Domain Name Resolution )
- Node structure of a BST ( using structures, class(friend-class) and getter / setter functions)
- Oops Concept
  - Polymorphism ( Compile-time and Run-time Examples)  
Under Run-time polymorphism, I was asked the concepts of **VPTR** and **VTable**.
  - I was given an Employee Class and the interviewer asked me to create different classes based on Employee Class using the concept of inheritance, abstract classes, etc.
- Difference between HTTP and HTTPS.
- Different layers of the OSI network model and functionality of each layer.
- What is indexing in DBMS? Clustered vs Non-Clustered indexing.
- Insertion, Deletion and Updation anomalies.
- What is API? Then I was asked whether I have worked with APIs or not. ( I said yes ). Then there was a brief discussion on APIs.

## Round 5: ( Technical Round II )

*Duration: 35 - 40 minutes*

- SQL query based on self-join.
- What is critical section? Mutex Lock vs Semaphore.
- Semaphore operations ( wait() and signal() ) . Basic code of critical section using these operations.
- The cost of a stock on each day is given in an array, find the max profit that you can make by buying and selling stock in at most one transaction.

**Input:** {7,1,5,3,6,4}

**Output:** 5

**Explanation:** Buy on day 2 (price = 1) and sell on day 5 (price = 6), profit = 6-1 = 5.  
Not 7-1 = 6, as selling price needs to be larger than buying price.

**Input:** {7,6,4,3,1}

**Output:** 0

**Explanation:** In this case, no transaction is done, i.e. max profit = 0.

Then the interviewer asked me what will I do if at most k transactions are given (only approach was discussed).