Cogent

Coding test:(two were assigned to each student)

- write code to sum left childs of binary tree.

- return true if two distinct elements arr[i]==2*arr[j] exists in array.

- shift all zeros to right in array

- return arr if arr[i] has greater element at its right sub array.

- return a node at which intersection of two linked list starts.

- duplicate each zero in array without increasing the array size.(e.g: [1,0,0,2,3,1] Output: [1,0,0,0,0,2])

First interview:

- 8 balls problem in 2 iteration find heavy weight ball

- a blind man on an island alone having a jar in which 4 pills red and 4 blue now you have to tell how he will eat 2 same colors pill as there is no difference in any texture smell nothing all same.

- a spider building his nest and every day he does every day double task then his previous day so he did 100% in 30 days now tell 25% he will do in how many days.

- polymorphism real life example

- overloading, overriding

- encapsulation

- abstract vs interface

- access modifiers

- normallization
- denormalization
- stored procedure vs function in db
- indexing
- cluster indexing vs non-clueter index
- joins all type
- sql vs nosql
- array vs linked list
- merge sort
- thread vs process in real life example (browser)
- deadlock
- TCP vs UDP

Second Interview:

- a building having 100 floors and you have two bulbs, now tell minimum attempts to find safe floors in worst case
- 10*10 Rubix cube, you dipped the Rubix in a white paint bucket fully and now tell how many block of it are painted. (Keep in mind it has six sides and common blocks as well)
- polymorphism real life example of non living with in the room.
- draw a db table having columns (cid, cname, ccity, cstate) now tell on which columns we will apply indexing if you have 40 lacs record (answer was cstate as if we apply on cid it will create index table of 40lacs records unique values.)