Initial Coding test: 6 MCQs and 3 coding questions
(Coding questions were medium to hard level and MCQs were general input output questions)

After the test shortlisted students were called for a face-to-face interview at Dolat Capital's Office in Andheri.

There was a pen and paper round in which the question was to design an application to maintain a queue of Network packets.
2 structures were defined by default for EventStatus and EventRequest and initially all the packets were pushed in the queue.

```
Struct EventRequest{
   Chart EventType; (which will be 'R')
   Int RetryCount;
}
Struct EventStatus{
   Char EventType; (which will be 'S')
   Char StatusType;(can be "C","T","Q","P")
   Int RetryCount;
}
```

Then one by one the packets needed to be popped out until the queue was empty.
If the packet is EventStatus ,then store the status type and print the contents of the packet and if the status type is "C" or "T" and the RetryCount is less than 2 then push the packet at the end of the queue after incrementing the RetryCount by one.
If the packet is EventRequest,then check if the last status type is "C" or "T" If yes then print the contents of the packet and push the packet to the end of the queue after incrementing the RetryCount by 1.

The marks were based on how efficiently the queue is implemented,and are inbuilt stl containers used,they wanted us to implement it from scratch.

After the Pen and paper round , further shortlisted candidates were called for tech interviews.

In the tech interview, first general introduction was asked, and then they asked whether I have worked with C++ to make projects.
Then they asked some questions regarding the memory management in C++,how it is different from C,what all operations can be performed by dynamic memory,etc.
Then they asked me to explain OOPS in C++,that is Abstraction,Polymorphism,Encapsulation,Inheritance.How can abstraction be achieved? I explained to them the access modifiers,that are public,private and protected.
Then they asked me to write a code to show polymorphism,both function overloading and function overriding.
Then a question related to linked list was asked,if you have been given a pointer to the node in a singly linked list and you want to delete the element how can you do so.
For ex A->B->C->D->NULL ,and you have been given a pointer to B,now you have to delete the value B from the linked list.

First I took some time to understand the question ,and came up with a O(N) solution,like maintaining a pointer P to the node B and Q to the next node that is C,and till Q is not null,swap the values present at nodes pointed by P and Q,and increment both pointers.
They wanted a constant time that is O(1) solution to this problem,but I was not able to come up with that.
Then they asked me to implement merge sort and explain the Best case,Worst case and average case time complexity for the same.
Then they asked me can we implement a queue using a stack with the best time and space complexity.
Then they asked me about the Trees and types of trees,How can we traverse a binary tree,inorder ,preorder and postorder.They asked me to do a dry run and explain how the traversal works.
Then they asked about balanced binary trees and what they are used for.
Then a question regarding ,if we want to store the pointer to an integer in a character pointer can we do that or how can we do that.
Then a question regarding sizes of pointers was asked,to list down the sizes for different data type pointers.
At the end they asked me if I had any questions regarding the company,I asked about the work culture and they explained to me the work culture at Dolat.

After the technical round I was called for HR interview,In HR round first my introduction was asked and then the HR asked me about my internship experience and what all skills do you have.Other than that what were my plans regarding further studies,Family background,why did you choose C++ and not other languages,etc.
Then the HR asked what is your second option for the job role,and why.

After both the Technical and HR round,2 students were selected by the company.