# **Amazon Interview Experience | SDE-2**

Difficulty Level :\nMedium
Last Updated :\n18 Sep, 2020

I was recently interviewed for Amazon SDE 2. There was a **online test** followed by **4 rounds** of online interviews.

#### Online Test: 2 Questions.

1. You are a in-flight movie service provider. You are given a list of movie lengths and the duration of the flight. Return a pair of (2) movies whose combined length is the highest and is less than or equal to flight duration. If multiple such combinations are possible, return the pair which has the movie of longer longest duration.

Ex:

MovieLenghts: {27, 1,10, 39, 12, 52, 32, 67, 76}

Flight Duration: 77.\xc2\xa0

The 2 possible pairs are (1,76) and (10,67), The answer is (1,76) as per the last constraint.

\xc2\xa02. You are given a list of pairs of items(strings) where each pair is an association. Return the association group with the highest number of elements. If two groups have the same size, return the group that has the lexological smallest element between these 2. Also while returning the group, return it in a lexological sorted order.

Sample Input: {{Item0, Item1}, {Item2, Item3}, {Item0, Item4}}\xc2\xa0

## Round 1: Technical round and some Amazon Leadership Principle questions.

- 1. Brief Introduction.
- 2. <a href="https://www.geeksforgeeks.org/find-number-of-islands/">https://www.geeksforgeeks.org/find-number-of-islands/</a>
- 3. Why Changing Company.
- 4. Why amazon.
- 5. Explain a situation where you have taken an initiative in the current role that helped the team/company in a quantitative way.
- 6. Explain a situation where you solved a problem which had a lot of time constraint associated with it.

### Round 2: Technical Round \xe2\x80\x93 1st Try

1. <a href="https://www.geeksforgeeks.org/longest-increasing-subsequence-dp-3/">https://www.geeksforgeeks.org/longest-increasing-subsequence-dp-3/</a>

I had internet problems, so had to retake round 2.

# Round 2: Technical Round \xe2\x80\x93 2nd Try

1. Given a list of pairs of characters \xe2\x80\x9cPairs Array\xe2\x80\x9d and a list of double

numbers \xe2\x80\x9cWeights Array\xe2\x80\x9d resolve the weights of query array.

Sample Input:

Pairs Array: {{a,b}, {b,c}, {c,d}, \xe2\x80\xa6}

Weights Array {5.0, 7.0, 2.0,\xe2\x80\xa6}

Query Array {{a,c}}

Explanation: each object in Pairs array is associated with the equivalent element in the weights array as follows.

a/b = 5.0, b/c = 7.0, c/d = 2.0.

Query = 
$$\{a,c\}$$
 =  $a/c$  =  $a/b$  \*  $b/c$  =  $5.0$  \*  $7.0$  =  $35.0$ 

So the answer is 35.0.

Do Note that the Weight Array can have Zeroes.

2. asked to write code, explain algorithm and space, time complexity.

# Round 3: Hiring Manager Round: (Design)

- 1. Brief Introduction.
- 2. Describe projects I had worked on.
- 3. Some technical questions on the projects.
- 4. Explain a situation where you had to go deep to resolve an issue.
- 5. Design a file sharing system with Version control of files. (Dropbox)

#### Round 4: Bar Raiser:

- 1. Give the result of \xc2\xa0\https://www.geeksforgeeks.org/previous-greater-element/ and https://www.geeksforgeeks.org/next-greater-element/ in a single pass over the input data.\xc2\xa0
- 2. Explain a situation where you have taken an initiative in the current role that helped the team/company in a quantitative way.
- Explain few answers in the previous interviews that you would like to change now.
- 4. Explain few design patterns that you have used till date.
- 5. Elaborate on the software designs that you have created in you work.
- Design a Chess Game.\xc2\xa0

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