

BNY Mellon Interview Experience

Online Assessment:

4 questions with 15 test cases each

2 medium, 2 hard

No. of test cases passed: 31/60

There were 2 virtual rounds for the ones shortlisted (18 members) after the OA.

Technical round 1:

The meeting time was scheduled with microsoft teams for 45 mins and the meeting link was sent to the mail that i used to registered in bny careers.

Time slot: 11 45 to 12 30

***Tip:** for online interviews always ensure ure all set to start, atleast 10 mins prior to the time window allotted*

The interviewer arrived on time and let me in to join the meeting.

1. He asked to introduce myself while he was setting up his environment
2. I started with my introduction and i was briefing on my projects, so here he started asking questions about my projects
3. He asked me if I could show the project UI. (I forgot the run command, so i asked him if it was fine if i showed him a working video (that i took a long time ago, it saved me here. Otherwise he would've definitely thought I'm faking my projects) → so always be ready to run your projects or have a video of the workflow).
4. The interviewer then asked what programming languages im comfortable with and how do I rate myself in a scale of 10.
I said i was comfortable with python (8/10) and I said i was learning oops with java so (7/10)
5. Following this he presented me a coding question

He gave me an input array it was
`arr=[-2,1,-3,4,-1,2,1,-5,4]`

I was asked to find **the maximum subarray (ie the subarray with max sum)** in this array and write a code for that.

[Leetcode 53 - maximum subarray](#) (only difference is that he asked me to print the array not the sum.)

I was asked to share my screen. The interviewer didnt setup a hackerrank environment for me luckily, so he asked me to use either notepad or any ide.

I chose notepad to avoid the headache of getting errors. The interviewer was fine with that because he said he doesn't care about the syntax.

I coded the solution in my text editor and explained the approach for which the interviewer seemed satisfied. I was also asked to print the result for the given input which is `[4, -1, 2,1]`

6. He then asked me what is a dictionary
7. Diff btw stack and queue
8. I was asked which sort is used for the divide and conquer method and he asked me to explain the approach and type a pseudocode.

I said it was merge sort and I started to explain the working of mergesort. The interviewer was satisfied. He quickly moved on to the next questions even without me having to write the pseudo code due to time constraint.

9. He asked me how I keep myself updated with recent technologies.

10. The last question was, How do you see constructive feedback? How do you take it?

[i answered in a learning matters kinda way]

I asked for feedback on my performance before we wrapped up.

Out of 18, 9 advanced to round2.

After completion of round1, I received the meeting link for round 2 in about 30 mins.

Timeslot: 1 30 to 2 15

My timeslot was again rescheduled to 2 to 2 45 pm, so keep checking ur mail in case there is a delay from their side.

Technical round 2 + HR:

In contrast to the round name saying technical + HR, It was entirely technical for me. The interviewer of this round didn't even ask about my projects. No behavioural questions. No HR round kinda questions. (It was my scenario, but other people would've got behavioural questions / what do know about bny, why do u wanto work with us kinda qns as well)

1. I was asked to introduce myself while the interviewer was setting up the hackerrank environment for me.
I introduced myself, gave a brief about my projects and expressed my interest to work in the company
2. The interviewer just commented on my projects, said they were useful and started with the technical part. He asked me which programming language I'm comfortable with and asked to rate myself. (Python, 8/10)

The following are the questions i was asked:

1. I was asked to design a call centre application where there are a number of agents and calls arriving in a continuous fashion.

I first told him my interpretation of the problem. I did this with a queue for each agent, (ie a no of calls are assigned in a queue to each agent)

I coded a solution with this idea. I was asked to run the code as well. **But i had error.** (Please take initiative and explain) I then started explaining the approach to him.

He seemed satisfied but he asked me a couple follow up questions in the same problem

He asked me what happens when agent1 finishes answering all calls. I said the agent will wait till the next queue of calls arrive. For this he told me that an agent shouldn't wait, he should pick the next incoming call.

So after this assigning a no of calls to an agent was pointless.

So, I explained another approach where the agents are in a queue and the calls are also in a queue.. Each agent gets assigned a call and after they finish the call they are added back to the queue again, the process repeats till the call queue is empty.

The interviewer seemed satisfied with this answer. He didn't ask me to code the solution for the 2nd approach.

2. I was given an array, `temp=[10,15,25,5,100,30,200,45]`

I was asked to detect the anomalies in this array. I clarified with him if by anomalies he meant the suddenly increasing numbers. He said I can go with the approach.

I told him that I would first define a constraint to 'when it is called an anomaly'. Say for example a number suddenly increasing (previous number+90) is an anomaly. And I said that I would use a stack to solve this.

He asked me what the process is called. Like defining this `prevnum+90`. What is it called. I said I'm defining a constraint. He said he calls it a threshold. I said I think they're pretty much the same. He agreed and got to the next question.

3. He asked me if I have done any AI projects.

I didn't have one. I told him that I'm currently studying AI in this semester and what I knew so far (how to formulate a problem in AI, the agent architectures for different situations and that I've experimented tools like Google Dialogflow)

Tip : instead of simply saying 'no', show them you're working on the skills you are yet to learn.

4. The last question he asked me was if I know about regular expressions in Python.

I said I knew there is a library called `re` or `regex` which I have to import if I'm working with `regex` in `py`. I also told him that I haven't worked with that library.

Despite that, he asked me to write a regular expression for a password.

He asked me how a typical password should be. I said the criteria for passwords like 8 min chars, 1 digit, 1 uppercase char, 1 symbol at least

I didn't know the Python syntax to write the regular exp. I said I'm not aware of the syntax. For which he agreed and said that's fine.

(I regretted that I should've at least tried to type smtg like `[A-Za-z0-9...]` So don't do what I did even if you don't know the exact syntax try writing smtg)

I asked for feedback on my performance again. With this he wrapped up the interview.

I received a notification from Neopat at around 10 45pm that day,

VERDICT: Selected for summer internship

Out of 9, 7 were selected for the summer internship.

Stipend: 75K

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