FIDELITY INVESTMENTS GAME PLAN

Rounds:

1. Coding round
2. Technical round
3. HR round

In my batch

- 224 attended coding rounds
- 100 selected to technical round
- 50 selected to HR
- 30 were given internship offer

FIRST LEVEL: CODING ROUND

- This round will happen on a platform called hire pro
- You will be asked to write the exam off campus on your own laptop
- You will be asked to keep the camera and microphone on, and you will not be allowed to switch tabs
- The whole exam will be proctored

- Sections

Section	No of Questions	Time (Mins)
English (MCQ)	10	15
Programming Questions	20	30
Coding	2	60
Algorithm	2	15

- No negative marking for any questions
- The test will be for 120 mins
- There will be 4 sections
- You can only attend the questions section wise
- You cannot go back to a section once completed
- You could move to the next section if you finished one section before the stipulated time
- A section will automatically be submitted once the time gets over

Section1 : English

1. English – basic questions to test English proficiency
2. No aptitude questions
3. Comprehension based
4. they will ask meaning of some words
5. what is the logical order to some sentences

No need to prepare anything for this section

Section 2: Programming questions

- MCQ based
- Based on topics like
    - Code based questions

        - A simple code will be given, and we need to:
            - Check the error in the code
            - What will be the output of the code
        - The code will be given in C++ or C
        - Need to know basic syntax of C++ and C
    - Data structures
    - Oops – very important
    - Computer networks (1 or 2 Questions)
    - DBMS
    - Operating systems (1 or 2 Questions)

    How to prepare:

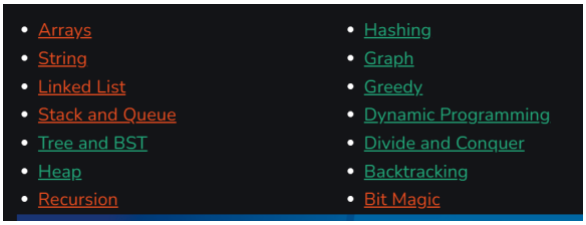
    1. Interview bit
       https://www.interviewbit.com/
        - Has topic wise mcq questions asked in the interviews
        - Some questions can be repetitive or vague, but attending these questions gives a good revision

Section 3: Coding Questions

- There will be two coding questions – Both will be moderate
- Each question will have around 24 test cases to pass.
- There will be two public test cases (meaning you can see the inputs of the test cases) the remaining will be hidden (you cannot see the inputs)
- It's not enough if you pass all the test cases, you have to pass all the test cases as fast as possible. Because the questions will be easy, and everyone will be able to pass all test cases the demarcation will be based on how fast you passed it
- Always handle edge cases
- Questions asked for me
    - Q1: They will give u a string and they will give you an encrypted version of the same string.
      The input will be another string, and you need to find the encoded version
      For example:
      Input: HELLOZ
      Output: JGNNQB
    - Q2: say 10 people are sitting in a circle. They will give an integer k(for example 3). You need to pass the ball starting from person 1 skipping 3 people. When the ball is passed back to the first person the game ends. Find the people in the circle who did not get the ball during the game.

    How to prepare:

    1. Questions are based on simple logic; you wouldn't need to study data structures that much but solving data structures related questions will help you build logic and and data structure related questions in the technical round
    2. Websites to prepare from
        1. Top 50 coding questions GFG: https://www.geeksforgeeks.org/c-coding-interview-questions/
            - These questions are based on C
            - Questions will be moderate
            - Good warm up before starting DSA questions
            - Good to build logic
        2. Must do coding questions GFG: https://www.geeksforgeeks.org/must-do-coding-questions-for-companies-like-amazon-microsoft-adobe/
            - Data structures topic wise questions
            - Focus on these topics:



- Although there are a lot of questions under each subtopic, all questions will be based on some few patterns, try to catch the patterns, there will be repetitions.

3. Striver's top 79 questions for interview prep: https://takeuforward.org/interview-sheets/strivers-79-last-moment-dsa-sheet-ace-interviews
    - Excellent material, well documented. Must go through

Section 4: Algorithm based question

- You need to type the algorithm for two questions
- This section is slightly tough because you will have only 15 mins for 2 questions
- But do not leave it blank, type something even if you don't know the answer
- Questions asked for me:
    - Write the algorithm to find the infix expression for an algebraic expression

How to prepare:
See the algorithm-based questions on previous fidelity interview experience archive on gfg
https://www.geeksforgeeks.org/tag/fidelity-investments/

Extra tips:

1. Practice coding on platforms like hackerrank or leet code to get used to the environment
2. Make sure you pass all the test cases while practicing
3. Although the coding questions will be logic based, solving data structures-based questions will help you improve your logic as well as your knowledge on data structures which will be useful for answering technical questions in coding and technical rounds
4. Create a leetcode account and practice all these questions on leetcode. Leetcode will track your progress and give credits which is something you can add to your resume
5. All ds-based questions will have a pattern and some basic algorithm, try to catch them
6. Don't try to see the solutions immediately, rather try to attend to them on your own even if it takes more than two hours (which it will). This will help you build logic which is very important.
7. Try to write down your observations and various clues you find while solving a problem and keep checking how close you are to solve the problem on your own – helps to build logic
8. Start with key concepts like
    a. Array – very very important
    b. Stack
    c. Queue
    d. Linked list
    e. String
    f. Bit magic
    g. Sorting and searching algorithms – very important
    h. Recursion – (Fibonacci, factorial etc.)

    Then move on to tougher concepts like trees and graphs

9. The language you use is not important. But make sure you know one language properly
10. Know the syntax of C++, C and Java. The code-based questions will be in c++ and C (basic syntax)
11. Try to approach the question using brute force approach and optimize it always. Do not leave at brute force

12. Always try to understand the time and space complexity your code
13. Attend coding competitions if conducted, helps you get used to answering questions within a time limit

SECOND LEVEL: TECHNICAL ROUND

- Questions asked in a technical interview can be of the following types:
  1. Coding Questions
     - Interviewer can give a coding question and ask you to write the code, algorithm or trace the solution
     - Questions will be based on data structures
  2. Subject related questions – based on the subjects studied in college
     - Important subjects:
       - Data structures and algorithms
       - DBMS
       - OOPs + design patterns
       - OS
       - Computer networks
  3. Project based questions
  4. Questions based on web technologies

- Understand the interview pattern of a particular exam clearly. Various sources to do that
  - GFG has previous year interview experience archives for most of the top companies. Go through all of those archives
    - GFG archive link for Fidelity: https://www.geeksforgeeks.org/tag/fidelity-investments/
    - Solution Link for the above Questions: https://docs.google.com/document/d/12fno0PhAPUdiCJZD1HfZvx85KIgbtinu/edit?usp=sharing&ouid=104165264615340176802&rtpof=true&sd=true
  - Talk to seniors who have attended the interviews
  - Reach out in LinkedIn to people who have attended the interview
  - Most companies have a similar interview pattern. Talk to classmates and seniors who attended other interviews
  - Remember information is wealth. Try to expose yourself to as much information as possible and do not be shy to reach out to people

Topic: Data structures

- Prepare data structures from the 3 links above, it should be enough to handle questions related to data structures
- The language doesn't matter, but some panels asked code in java
- Know the real time applications of all the ds
- Additionally prepare topics like
  - Sorting
    - Bubble sort
    - Insertion sort
    - Selection sort
    - Merge sort
    - Quick sort

    - Know the time complexity of each sorting algorithm
    - Know the code (in java, if possible, some panels asked)
    - Know how to trace it for a given array of numbers

        - The best sort out of this is merge (worst case is also nlogn, worst case for quick is n2)
    - Searching
        - Linear search
        - Binary search

        - Know the code in java if possible

    - Recursion
        - Fibonacci series
        - Factorial of a number
        - Binary search

        - Know the code
        - Should be able to trace the recursive function calls

Topic: Object Oriented Programming

- The most important topic
- Have a clear idea of what oops is
- Better to know oops in java
- Try to relate all the concepts of oops with real life example

How to prepare

- Try to practice as many mcqs in oops as possible
- Oops in java: https://www.youtube.com/watch?v=bSrm9RXwBaI&pp=ygURb29wcyBhcG5hIGNvbGxlZ2U%3D
    - Excellent resource
    - Covers all concepts
- Also prepare additional concepts like
    - Exception handling
    - Design patterns
        - Know the real-life application of all the design patterns
- Have an idea of how oops is implemented differently in java, python and C++. Understand the advantage of each of the language
- Cover all these topics
    - https://docs.google.com/document/d/1gtXrXiDg6S44nJWymkYSp15CAqMAkMSX/edit?usp=sharing&ouid=104165264615340176802&rtpof=true&sd=true

- Learn C++
    - https://www.w3schools.com/cpp/
- Try to go as deep into the subject as possible. Chat gpt every word you see

Topic: DBMS

- Important topic
- Have a good knowledge of SQL
    - SQL
        - DML commands
        - DDL commands
        - TCL commands
        - Joins – very very important
            - Self-join
            - Natural join
            - Left join

            - Right join
        - Sub queries
    - PLSQL
        - Triggers
        - Cursors
        - Procedures
- Normalization
    - 1NF
    - 2NF
    - 3NF
    - BCNF
    - Know the conditions for all these normal forms
- Transactions
    - ACID properties
    - Locks
        - Types of locks
        - Dead lock prevention
    - Schedules
- ER and EER diagrams
    - Given a scenario learn how to make the ER and EER diagram
    - Know the ER and EER diagram of your project
- NoSQL databases
    - MongoDB
    - Firebase
    - Know what the advantage of NoSQL over SQL is

How to prepare

- Practice DBMS exercises given in college
- W3 schools
- Chat gpt
- Full DBMS playlist (Gate smashers): https://www.youtube.com/playlist?list=PLxCzCOWd7aiFAN6I8CuViBuCdJgiOkT2Y
- My notes: https://docs.google.com/document/d/1x109l62zE2_JuVMB9uBatQyRH139Fyao/edit?usp=sharing&ouid=104165264615340176802&rtpof=true&sd=true

Topic: Web technologies

- Very very important for interviews
- This will not be taught in college, this topic is based on experimental learning
- You will learn about this topic as do web application projects
- Important topics:
    - APIS
        - Web API
        - Rest
        - soap
    - Cloud computing
    - HTTP, HTTPs, how requests work

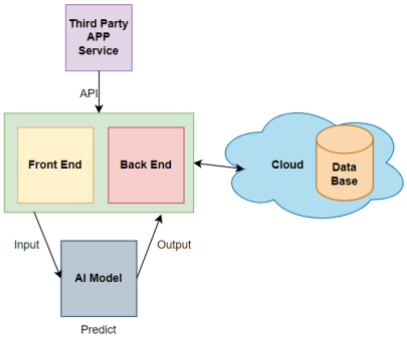
How to prepare:

- The only way to prepare is get exposed to as many terms as possible
- Chat gpt all the words you see to get as much as information as possible

- Web architecture: https://www.youtube.com/watch?v=bxuYDT-BWaI
- Notes: https://docs.google.com/document/d/1ZUEDvHTIGan_tva_DXYknLBcx9kyh3R9/edit?usp=sharing&ouid=104165264615340176802&rtpof=true&sd=true

Topic: Project Based (Most important)

- Questions will be based on the projects done by you
- Try to do a project which has the following components
  - A front end
  - Backend
  - Database (preferably NoSQL based)
  - Cloud
  - A third-party app service integrated using APIs
  - Any AI model
  - Have these components in your project
  - Deploy your project and do extensive testing
  - Having a project which has all these components gives the interviewer an idea that you are exposed to all the components of a web application.



- Things you need to know about your project clearly
  - What is the tech stack of the project. Also try to know why you chose the tech stack (advantages of it)
  - What is the business logic of the project
  - What is the data model of the database
  - Architecture diagram of the project
- How to prepare
  - Build a project using Firebase
    - Offers all the basic tools needed for a web application
  - Code camp Firebase Tutorial: https://www.youtube.com/watch?v=UFD4SP91tSM&t=5830s&pp=ygUbY29kZSBjYW1wIGJhc2ljIGFwcGxpY2F0aW9u
    Excellent source to learn the basics of all the components in a web application using firebase

Topic: Computer networks

- Computer networks-based questions will be based on the panel (not all panels will question computer networks
- Important topics:
  - OCI model, TCP-IP model
  - Application layer protocols (HTTP and DNS esp.)
  - Transport layer protocols (TCP and UDP)
  - Important topics imo

UNIT I INTRODUCTION TO NETWORKS 8

Network Introduction: Evolution of Computer Networks, Classification of computer Networks LAN, WAN, MAN, Network Topology: BUS, STAR, RING, MESH, OSI Layered Architecture, TCP/IP architecture

UNIT II PHYSICAL LAYER AND MEDIA ACCESS 10

Basic Communication: Modulation, Sampling, Quantization - ADC – DAC – Transmission media: Wired and Wireless, Medium Access Control Techniques: Random, Round Robin, Reservation: ALOHA Pure and Slotted, CSMA/CD-CSMA/CA- Ethernet-Token Ring-Token Bus-ARQ 3 Types, Data Link Layer design issues: Error Detection Codes, Parity Check, Checksum Error Correction Codes, Hamming codes, IEEE Standards: Bluetooth (802.15).

UNIT III NETWORK LAYER AND INTERNETWORKING 9

Network Devices: Router, Switch, HUB, Bridge, Routing: Static Routing, Introduction to dynamic routing, RIP v1 and RIP v2- OSPF-DSDV. Basic Internetworking: IP - CIDR - ARP - DHCP - ICMP.

UNIT IV TRANSPORT LAYER AND SOCKET PROGRAMMING 9

Overview of Transport layer: UDP - Reliable byte stream (TCP), Connection management: Flow control – Retransmission – TCP Congestion control, Congestion avoidance: DECbit – RED – Socket Programming: TCP, UDP.

UNIT V APPLICATION LAYER 9

Traditional applications – electronic mails (SMTP, POP3, IMAP, MIME)– HTTP – File transfer protocol – SSH – DNS – SNMP – Introduction to network security.

Topic: Operating system

- Depends on the panel. Not all panels will question on OS
- Know basic topics
    - What is OS?
    - What is a process?
    - Threads?
    - Scheduling algorithms

Topic: Introduce yourself

- The most important and sure shot question in any technical interview
- This ultimately decides what your entire technical interview will be about
- Things that could be mentioned in your introduction
    - Which language are you most proficient in?
    - What is your domain interest? (Web dev? Cloud? Dsa? ML? DBMS?)
    - Which is your strongest subject (DBMS? OOPs? OS? DSA?)
    - A project that you worked on which has your highest contribution
    - Any hackathons? Previous internship experiences? Part of any technical clubs?
- Try to give an idea to the interviewer about what your strengths are, this gives you an edge as the interview will proceed in topics which you are strong in
- The following can be a template for the introduction:
    - Name
    - Year
    - Department
    - From (place)
    - Schooling
    - Achievements in school
    - Proficient language
    - Strong subject
    - Domains you worked on – which is your strongest domain?
    - Courses done?
    - Hackathons experience?
    - College achievements?
    - Previous internship experience?
    - Part of any technical clubs? Other clubs?
- Memorize your introduction and practice saying it verbatim multiple times. This is the first question you will have to answer in the interview so saying this properly gives confidence
- Make sure you have a thorough knowledge of everything you mention in your introduction.

Extra Tips:

- Always be smiling and energetic during the entire interview
- Do not talk about any topic which you are unfamiliar with, as they may ask more questions about it
- Read through your resume and do not mention any skill or project that you do not have complete knowledge on
- If you are asked a question which you are not familiar with, be honest and say that you are not familiar with that concept and try to talk about a topic that is closest to the topic asked by the interviewer.
- Try to think for 5 seconds before giving out an answer to collect and organize your thoughts
- If your project is a team project, then
    - Clearly explain your contribution to the project
    - Be very clear of your contributions
    - Be aware of the other contributions as well. Ask your team mates to explain their contributions to you before the interview
    - If asked a question that is not part of what you developed in the project, mention that to the interviewer and make an educated guess of how you would have handled it
- Ask 2 questions to the interviewer are the end of the interview, try not to ask standard and vague questions.

Questions asked in fidelity technical round for 2026 batch

1. Different types of sorting algorithms. Code or tracing for each. Which is the best sorting algorithm?
2. Implement linked list and tree
3. What are the different ways to reverse a string?
4. What are APIs?
5. What is a rest API? Soap API? Dif between HTTP and HTTPs. What design pattern are APIs based on?
6. What is exception handling? Why is the final block used
7. Explain the business logic of your project
8. Question based on self-join, procedures, triggers and cursors
9. What are protocols? Name some protocols? What is an OSI model?
10. How do you swap two variables without using a temporary variable?
11. What are some of the current technologies? Like block chain

SECOND LEVEL: HR ROUND

- This is a very light weight round where your communication skills will be tested
- Learn something about the company, as that can be questioned. Try to search for specifics on the company and not just what is mentioned on the website.
- Give answers in such a way that it gives them hope that you will be continuing to work in the company
- Handle questions like
    - Will you be doing higher studies?
    - Will you switch if a company with better salary approaches you?
    - Will you be going abroad?

    Sensitively as these are the questions which will analyze your intensions

- Have an idea of what you want to do in the future and what kind of work you are looking forward to in the company
- Search all the standard HR questions on the internet and have some answers for those questions
- Ask relevant questions to the interviewer at the end of the interview