**Coding Ans =>** [**https://github.com/Aman3512/Prospecta-assignment**](https://github.com/Aman3512/Prospecta-assignment)

**Part-1 =>**

Ans-3 =>

Q what are the key things you would consider when creating/consuming an API to ensure that it is secure and reliable?

Ans =>

1. Data Validation => Validate the data

2. Authentication => check the user credentials, using Spring Security, JAAS API

3. Authorization => Check whether the authenticated user has the authority to access the API, using Spring Security (session-based or JWT Token based)

4. Exception Handling => Handle exceptions properly, like server errors, invalid input, etc.

**Part-2 =>**

Theoretical Challenge

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Ans-1 =>

1. First, I will insert all data with comma seperated and then save it with the .csv extension

2. Then I will read the data using BufferReader and Then I will convert the data to an array.

String file = "src\\file.csv"

BufferedReader bufferReader = new BufferedReader(new FileReader(file));

3. Then I will store the data in Key-Value format using HashMap

4. While splitting values if (=) is founded, I will consider them as a formula and then pass them as a parameter in my method to solve them.

5. In last, I will return the Map with all values.

Ans-2 =>

1. If the wrong file path is provided inside the FileReader, then we will get fileNotFoundException

2. Circular dependency error, there might be a chance that circular dependency may occur, as if formula A is dependent on C and C is dependent of A

Ans-3 =>

If the wrong path is provided then our code will break.