Suppose you have a CSV file with the data below.

A1: 5, A2: 7, A3: 9, B1: 3, B2: 8, B3: =4+5, C1: =5+A1, C2: =A2+B2, C3: =C2+B3

This can be represented in an excel sheet below:

A B C

1 5 3 =5+A1

2 7 8 =A2+B2

3 9 =4+5 =C2+B3

I want a program that will take the CSV input above and produce CSV output with the results. If it is a value, then return a value. If it is a formula then calculate the formula and return the value of that formula.

1. How will you tackle the challenge above?

Ans:

1. At first we will take the input of data using scanner class or buffer reader.
2. Then we will split data using comma (,) and make it into an array.
3. Then we will create HashMap and put field name as Key and formula or value as Data.
4. Then we can simplify HashMap values by parsing it into integer if it is value or fething field value if it is formula.
5. After this we can convert map into CSV file.
6. What type of errors you would you check for?

Ans :

1. We may encounter Circular dependency if 2 fields are dependant on eachother.
2. We may get Null pointer exception if value is not present on value in hashmap.
3. How might a user break your code?

Ans :

1. One way is having multiple circular dependency.
2. Inputing any invalid character.