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Coding Interview for Graduates

Coding Challenge

Using <https://api.publicapis.org/> complete the following tasks in any language/server.

1. Create an API that lists the title, description based on the category passed as an input parameter.

public class demo {

public list(String title,String description) {

super();

this.title= title;

this.description=description;

}

Private String title;

Private String description;

Public String toString()

{

Return “list {title=”+title”,description=”+description”}”;

Public String gettitle()

{

Return title;

}

Public void settitle(String title)

{

This.title=title;

}

Public String getdescription()

{

Return description;

}

Public void setdescription(String description)

{

This.description=description;

}

1. Create an API that would save a new entry with all the relevant properties which retrieves values from the endpoint GET /entries.

For(String title,description : bookMap.list())

{

System.out.println(“title:”+title+”description”+description+bookMap.get(list));

}

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

* Authenticate and authorize
* Implement access control
* Encrypt requests and response
* Validate the data
* Access your API risks
* Choose your web services API
* Conduct regular security tests

Theoretical Challenge

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.

First we have to make all the entries within the notepad and we have to save it as filename.csv extension.

Import java.io.\*;

Import java.util.scanner;

Public class ReadCSV{

public static void main(String args[]){

Scanner sc = new Scanner(new file(“filename.csv”));

While(sc.useDelimeter”,”);

{

System.out.println(sc.next());

}

sc.close();

}

}

1. How will you tackle the challenge above?

Answer:

> we have to save the file with an “.csv extension” in which all the entries are separated with comma”,” and we have to save it in the notepad eg: demp.csv

> And i have to written a java code in which it contains a main class called ReadCSV

inside that class i had given scanner class named sc in which i have given a new file with its full path eg: “C:\\user\filename.csv”

> we have to write full path of the file with the filename after this i used a useDelimeter keyword which defines a separation of charecters with the symbol “,”

> The while loop will be executed until all the entries

> System.out.function returns the output of the csv file

1. What type of errors you would you check for?

Answer:

In the above example we have to check errors like

> IOExceptions

> Values unappropriate form of values

> Non-digestable format

> There may be chances of ArithmeticExceptions during calculations

1. How might a user break your code?

Answer:

* The code is breakable when it is untested.
* Code does not report any errors.
* If it remains isolated for too long.
* Showing defect in software.
* Change of software logic.