**SysGears**
custom software

Task 1

Task description
An application which is being tested outputs data from a spreadsheet file as a horizontally scrolling histogram (see the graph below). The file contains data by specific categories, their metrics, and the values for each metric (see the example file in the input data). When the cursor is placed on a specific histogram column, a tooltip appears indicating the category, metric, and value directly. You need to check the functionality of the tooltip and be sure that the graph is built correctly.
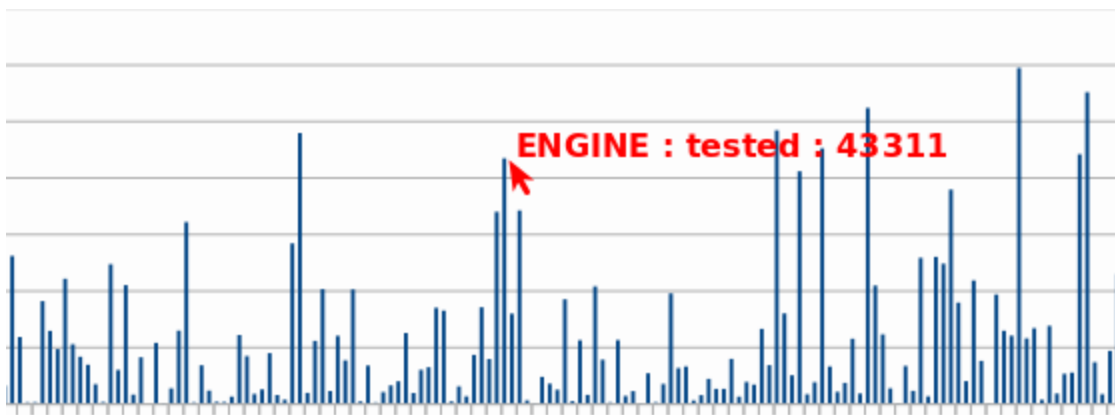
Incoming data
When constructing the graph we used data for the following categories : oil, cattle, led and ocean.The order of the columns from left to right in the graph corresponds to the order of the rows in the file from top to bottom. The test data file is available at the link
https://drive.google.com/file/d/1wqPnWocrkiq-Ho0Y65QabeQBJqyH590I/view

Expected Results
A set of test cases sufficient to check the correctness of the functionality.

Task 2

Task description

Imagine you work in a store that sells computer components. The warehouse received a batch of new components from various manufacturers for ordinary household personal computers:
- Processor models - CPU1, CPU2, CPU3
- Motherboards - MB1, MB2, MB3
- Random Access Memory - RAM1, RAM2
- Hard drives - SSD1, SSD2
- Video cards - GA1, GA2

You need to check if they work well and won't be returned the first day after the sale. It is known that if any component has a defect which might be found out easily. There are also no technical restrictions for installing any components in any of the motherboards.

How will your review strategy change if you know that:

1.The store has already cooperated with the manufacturers of all the components that arrived before and there were no problems with performance, but all the models that arrived are new.

2.The same condition as in the first point, but it is also known that RAM1, CPU2, MB1, SSD2, GA2 are widely known models and they will be more popular than others.

3.The goods came from dubious manufacturers and you know that device drivers, and therefore the devices themselves, can conflict with each other.

Expected results
A description of the approach using a diagram, table, or block diagram (whichever is more appropriate for your solution), and the number of tests for each of the cases mentioned.

Task 3

Task description

Imagine you're standing in the hall in front of the door to the "strange" room, next to it you see a Salmon, a red hat and a small instruction about the rules of behavior in the room.

If you enter the room with the Salmon, you will see an old clock - a flip board that flips the clock and minutes on the opposite wall. Depending on the time, the salmon will either offer to look at the latest stock reports, which are only available until noon, or, if you are late or refuse to check the reports, will respond with rude abuse, because he is very hot-tempered.

If you enter the room wearing a red hat, a gray Wolf who loves silence will appear. In response to a silent nod, he offers you a drink, but not more than once, regardless of whether you take the offer or not. After that if you stay for tea, the Wolf will be replaced by a wonderful view of the sea, otherwise, you will immediately have a severe hangover. In the event you were unable to maintain silence during communication with the gray Wolf, you will immediately find yourself in front of the door, but already without a hat.

You know for sure that you can't leave the room the same way you entered it, but if you raise your left hand, everything will restart and you'll be back in the hall.

You need to check the "operation" of the room.

Expected results

Describe the approach using a diagram, table, or block diagram (whichever is more appropriate for your solution).

Task 4

Task description
How would you test Asimov's Laws of Robotics?

1.A robot cannot harm a person or, through its inaction, allow a person to be harmed.

2.A robot must obey all orders given by a human, except when those orders conflict with the First point.

3.A robot must take care of its safety to the extent that it does not conflict with the First or Second points.

Expected Results
A set of test cases, or alternatively, a description of the simulated situations.

Notes for the tasks

- Application of the test design approach will help with the tasks solving.

- Further clarification on the design test is welcome. Namely, if in the process of creating cases you allocate some minimal set of data, use a special strategy, or create supporting materials (calculations, diagrams, etc.), then such explanations will help us in analyzing the decision.

- Test cases should follow the following simplified format:

Brief description	Prerequisites (The state before the start of the test)	Consistency	Result (Criteria for evaluating the function performance under review)
User authorization.	The user is not authorized. Home page is open.	1. Click "Log in". 2. Enter the login and password, click OK.	1. An authorization window appears. 2. Successful authorization, the "Login / Register" block changes to the username.

- A brief description should reflect the essence of the inspection, and allow one inspection to be easily distinguished from another.
- Try to avoid excessive detail when writing cases, but do not neglect the essential test criteria. Bear in mind your description will be read by another person.
- In case you have an idea for a test for which you cannot find clear conditions in the task description, rely on common sense and leave appropriate explanations.
- If you want, your answers can be written in English.

Send the completed task in PDF format to email hr@sysgears.com, with the subject of the letter: "Completed tasks. QA. [First Name Last Name]".

Attach a resume In addition to the letter.