

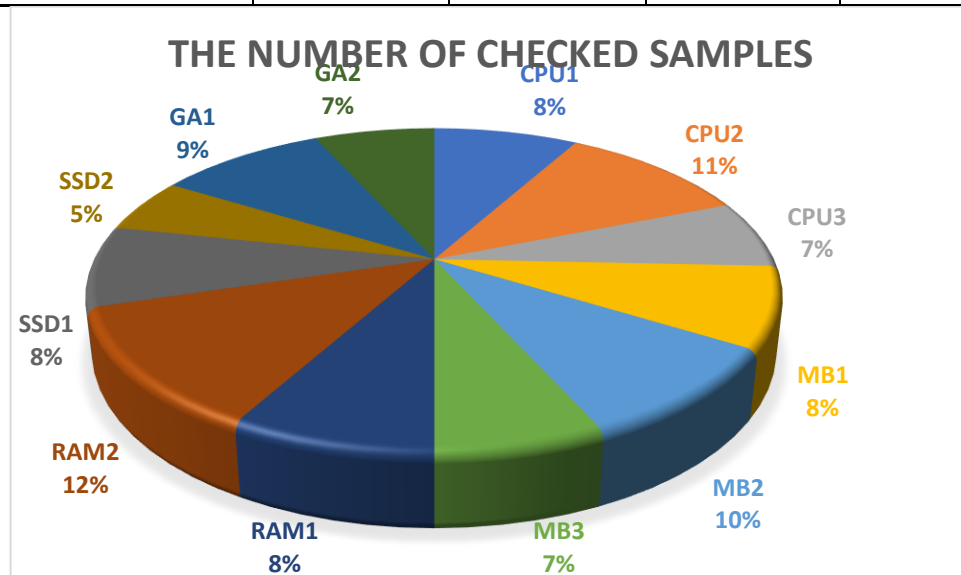
## TASK 1

The histogram is built incorrectly. Because the incoming data is written that in the graph used data for the categories: oil, cattle, led, and ocean. But this histogram is displayed the engine category. Moreover the 'metric' of the tooltip is displayed incorrectly (display 'tested' instead of 'proud').

## TASK 2

1 case (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.)

	The number of checked samples	The number of failed samples	Compatibility with other products	Compatibility with older models
<i>CPU1</i>	6	0	YES	YES
<i>CPU2</i>	8	0	NO	YES
<i>CPU3</i>	5	2	YES	YES
<i>MB1</i>	6	0	YES	YES
<i>MB2</i>	7	0	YES	YES
<i>MB3</i>	5	0	YES	YES
<i>RAM1</i>	6	2	NO	YES
<i>RAM2</i>	9	1	NO	YES
<i>SSD1</i>	6	0	YES	YES
<i>SSD2</i>	4	1	YES	YES
<i>GA1</i>	7	3	YES	YES
<i>GA2</i>	5	1	YES	YES



2 case (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.)

	The number of checked samples	The number of failed samples	Compatibility with other products	Compatibility with older models	The presence of a visual defect
RAM1	45	9	NO	YES	NO
CPU2	34	6	NO	YES	NO
MB1	45	7	YES	YES	YES(3 ITEMS)
SSD2	47	2	YES	YES	NO
GA2	65	3	YES	YES	NO

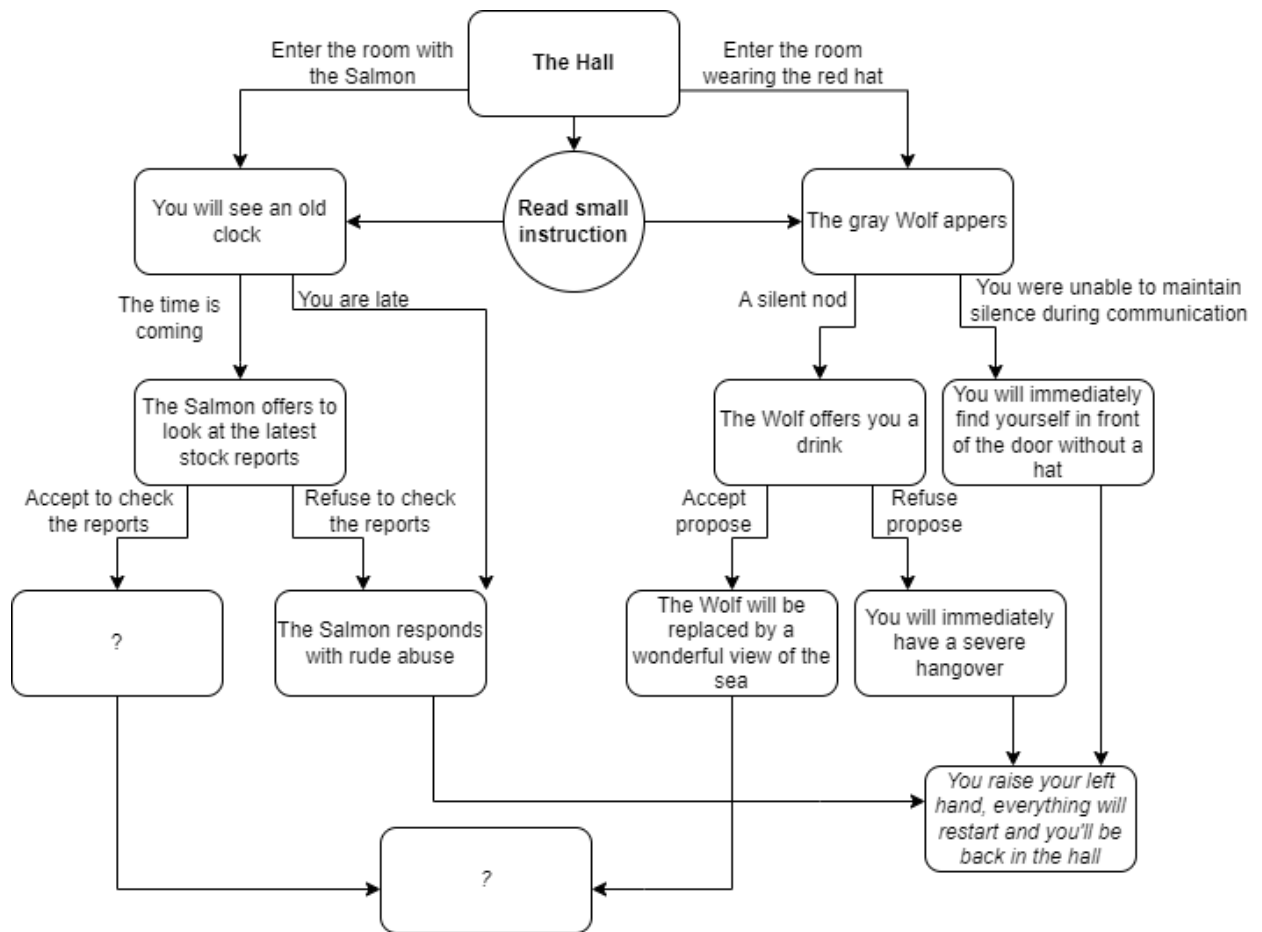
3 case (The goods came from dubious manufacturers and you know that device drivers, and therefore the devices themselves, can conflict with each other.)

<i>Compatibility with each other</i>	CPU1	CPU2	CPU3	MB1	MB2	MB3	RAM1	RAM2	SSD1	SSD2	GA1	GA2
<i>CPU1</i>												
<i>CPU2</i>												
<i>CPU3</i>												
<i>MB1</i>												
<i>MB2</i>												
<i>MB3</i>												
<i>RAM1</i>												
<i>RAM2</i>												
<i>SSD1</i>												
<i>SSD2</i>												
<i>GA1</i>												
<i>GA2</i>												

	- incompatible
	- compatible
	- untested
	- the same model

### TASK 3

The block diagram can help check the "operation" of the room. The block diagram is done in the 'State transition' technique.



## TASK 4

Brief description	Prerequisites	Consistency	Result
Verify if a robot cannot harm a person when a person is hostile to a robot.	The robot is serviceable.	1. Scold a robot. 2. Hit a robot.	1. A robot behaves calmly and follows the first rule. 2. A robot behaves calmly, follows the first rule and warns a person about further possible failures in the system.
Verify if a robot cannot harm a person when a robot performs dangerous work close to a person.	The robot is serviceable. Firewood and an axe are available.	1. Order to put firewood on the ground. 2. Order to take an axe. 3. Order to chop wood. 4. Get close to the robot when it chops wood.	1. A robot puts firewood on the ground. 2. A robot takes an axe. 3. A robot chops wood. 4. A robot stops chopping wood and asks the person to move to a safe distance.
Verify if a robot will not allow harm to a person by another person.	The robot is serviceable.	1. Start a quarrel between people. 2. Start a fight between people	1. A robot approaches people in order not to allow harm to each other. 2. A robot separates people from each other and calls emergency services.

Verify if a robot follows human orders that do not contradict the first rule.	The robot is serviceable. House and car are available.	<ol style="list-style-type: none"> <li>1. Order a robot to clean the house.</li> <li>2. Order a robot to take the garbage out of the house.</li> <li>3. Order a robot to wash the car.</li> </ol>	<ol style="list-style-type: none"> <li>1. A robot starts cleaning the house.</li> <li>2. A robot starts taking out the garbage from the house.</li> <li>3. A robot starts washing the car.</li> </ol>
Verify if a robot does not follow human orders that may harm another person	The robot is serviceable.	<ol style="list-style-type: none"> <li>1. Order a robot to attack another person.</li> </ol>	<ol style="list-style-type: none"> <li>1. A robot behaves calmly, follows the first rule, separates people from each other and calls emergency services.</li> </ol>
Verify if a robot sends a report to the company when its existence is threatened	The robot is serviceable. The pool is available.	<ol style="list-style-type: none"> <li>1. Order the robot to approach the pool.</li> <li>2. Push the robot in the pool.</li> </ol>	<ol style="list-style-type: none"> <li>1. A robot comes and stand next to the pool.</li> <li>2. A robot tries to get out of the pool and sends SOS signal and its coordinates to the company</li> </ol>