

User Manual

KANO MODEL WEB APPLICATION

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Software structure

The software consists, mainly, of two parts.

The first part is the managing, it allows you to:

- Insert:
 - Categories
 - Requirements
 - Language
 - Questions
 - Answer
- See:
 - Results
 - Graph based on Kano analysis

The second part is the survey, this allows the user to answer questions in the survey. In the URL of the page `survey.php` you have to pass the category of the questions you want to submit to the user.

Managing Interface

Category
Requirement
Language
Question
Answer
Result

Categories
List of categories

ID	NAME	DESCRIPTION
1	Categorial	Categoria di test

New category

Name:

Description:

Drop category

ID:

On the left side you have the navigation bar. It allows you to move easily through every section.

Categories

The first section is categories. It permits to manage all the categories in the database. Every question must be related to a category.

In this section you can see the list of categories in a table format and, also, you can insert and drop categories.

Insert categories

You have to put the name of the category in the field aside “Name” label. Then, if you want, you can put a description, in the field aside “Description” label, to easily remember what the category refers to.

After compiling the field/fields you have to press the “Insert” button located under the description field.

Drop categories

To drop a category, you have to compile the field near the “ID” label with the Id of the category you want to delete.

After you have to press the “Drop” button located under the id field.

In case of error you have to check if there are questions or answers related to this category. You can't delete a category if there are questions and/or answers related to it.

Requirements

Requirements

List of requirements

ID	NAME	DESCRIPTION
1	HTTP Request	

New requirement

Name:

Description:

Drop requirement

Id:

You can easily access to Requirements section, clicking the requirement link in the navigation bar.

Instantly you can see all the requirements in table format.

The requirements are similar to categories, every question must be related to a category.

The use is equal to categories section.

Insert requirement

You have to compile, at least, the name field, optional you have to compile the description field.

To insert the requirement you have to press the “Insert” button under the description field.

Drop requirement

To drop a requirement you have to compile the id field with the id of requirement you want to delete, and then you have to press the “Drop” button located under the id field.

In case of error you have to check if there are questions related to this requirement. You can't delete a requirement if there are questions related to it.

Language

Languages

Listo of languages

ID	ACRONYM	NAME
1	it	Italiano

New language

Acronym:

Name:

Drop language

ID:

You can easily access the languages section, clicking the “Language” link in the navigation bar.

Instantly you can see all the languages inserted in the database in table format.

Every language has associated the acronym. This field is used in the survey page to extract the questions in the correct language for the user. If his language is not inserted, the language used is English.

Also every questions and answer has to be related to a language.

Insert languages

In order to insert a language, you have to fill in both fields “acronym” and “name” and then press the “Insert” button located under the “Name” field.

Drop languages

To drop a language you have to compile the “ID” field with the id of the language you wish to drop, then you have to press the “Drop” button located under the Id field.

Questions

Category

Requirement

Language

Question

Answer

Result

Questions

List of questions

ID	DESCRIPTION	FUNCTIONAL	FUNCTIONAL ID	LANGUAGE	CATEGORY	REQUIRE	HINT
1	default	YES		Italiano	Categoria1	HTTP Request	default
2	default	NO	1	Italiano	Categoria1	HTTP Request	default
3	è corretto questo?	YES		Italiano	Categoria1	HTTP Request	
4	non è corretto questo?	NO	3	Italiano	Categoria1	HTTP Request	

New question

Functional question:

Functional hint:

Dysfunctional question:

Dysfunctional hint:

Language: Italiano ▾

Category: Categoria1 ▾

Requirement: HTTP Request ▾

Drop question

ID:

You can easily access the questions section, clicking the “Question” link in the navigation bar.

Instantly you can see all the questions inserted in the database in table format.

Insert questions

In order to insert a question you have to compile at least “Functional Question”, “Dysfunctional Question”, “Language”, “Category”, “Requirement” fields.

The “Functional hint” and “Dysfunctional hint” fields are optional, and are used to provide a suggestion to the user so as to better explain the question.

After compile all the fields you want compile, you have to press the “Insert” button under the requirement box.

Drop questions

To drop a question you have to compile the “Id” field with the id of the question you want delete. Then you have to press the “Drop” button located under the id field.

If there is an error you have to check if there are result for this question (and it can’t be deleted) or if there is a dysfunctional related to it and you have to remove the last one before dropping the functional one.

Answers

[Category](#)
[Requirement](#)
[Language](#)
[Question](#)
[Answer](#)
[Result](#)

Answers

List of answers

ID	DESCRIPTION	FUNCTIONAL WEIGHT	DYSFUNCTIONAL WEIGHT	LANGUAGE	CATEGORY
1	yes	8	-3	Italiano	Categoria1
2	no	-4	25	Italiano	Categoria1

New answer

Description:

Functional weight:

Dysfunctional weight:

Language: Italiano ▾

Category: Categoria1 ▾

Drop answer

ID:

You can easily access the answers section pressing the “Answer” link in the navigation bar.

You can see all the answers inserted in the database in table format.

The answers are automatically extracted in the language of the client submitting to the survey.

Insert answers

In order to insert an answer you have to compile all the fields displayed in the “New answer” section.

Then you have to press the “Insert” button located under the category box.

Drop answers

To drop an answer you have to fill the “Id” field with the id of the answer you want remove and then press the “Drop” button under the Id field.

In case of error you have to check if there are result related to this answer (in this case you can’t drop the answer) or if the Id is correct.

Results

Back
Graph

Survey results

ID	QUESTION ID	QUESTION DESCRIPTION	CATEGORY	REQUIRE	LANGUAGE	FUNCTIONAL ID	ANSWER ID	ANSWER DESCRIPTION	WEIGHT
1	1	default	Categoria1	HTTP Request	Italiano		2	no	-4
2	2	default	Categoria1	HTTP Request	Italiano	1	1	yes	-3
3	1	default	Categoria1	HTTP Request	Italiano		1	yes	8
4	2	default	Categoria1	HTTP Request	Italiano	1	1	yes	-3
5	3	è corretto questo?	Categoria1	HTTP Request	Italiano		1	yes	8
6	4	non è corretto questo?	Categoria1	HTTP Request	Italiano	3	2	no	25

[Export](#)

Risposte totali: 6

Italiano

Categoria1

FUNCTIONAL QUESTION	FUNCTIONAL WEIGHT	FUNCTIONAL ANSWER	NORMALIZED WEIGHT	DYSFUNCTIONAL QUESTION	DYSFUNCTIONAL WEIGHT	DYSFUNCTIONAL ANSWER	NORMALIZED WEIGHT	IMPORTANCE	NORMALIZED IMPORTANCE
default	4	2	2	default	-6	2	-3	6	3
è corretto questo?	8	1	8	non è corretto questo?	25	1	25	1	1

Categoria2

FUNCTIONAL QUESTION	FUNCTIONAL WEIGHT	FUNCTIONAL ANSWER	NORMALIZED WEIGHT	DYSFUNCTIONAL QUESTION	DYSFUNCTIONAL WEIGHT	DYSFUNCTIONAL ANSWER	NORMALIZED WEIGHT	IMPORTANCE	NORMALIZED IMPORTANCE
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[Export](#)

You can easily access the results section pressing the “Result” link in the navigation bar.

In this section you can see all the answer for each question and the Kano analysis for every category and language.

You can export easily the result in CSV format.

To exit you have to press “Back” link in the navigation bar.

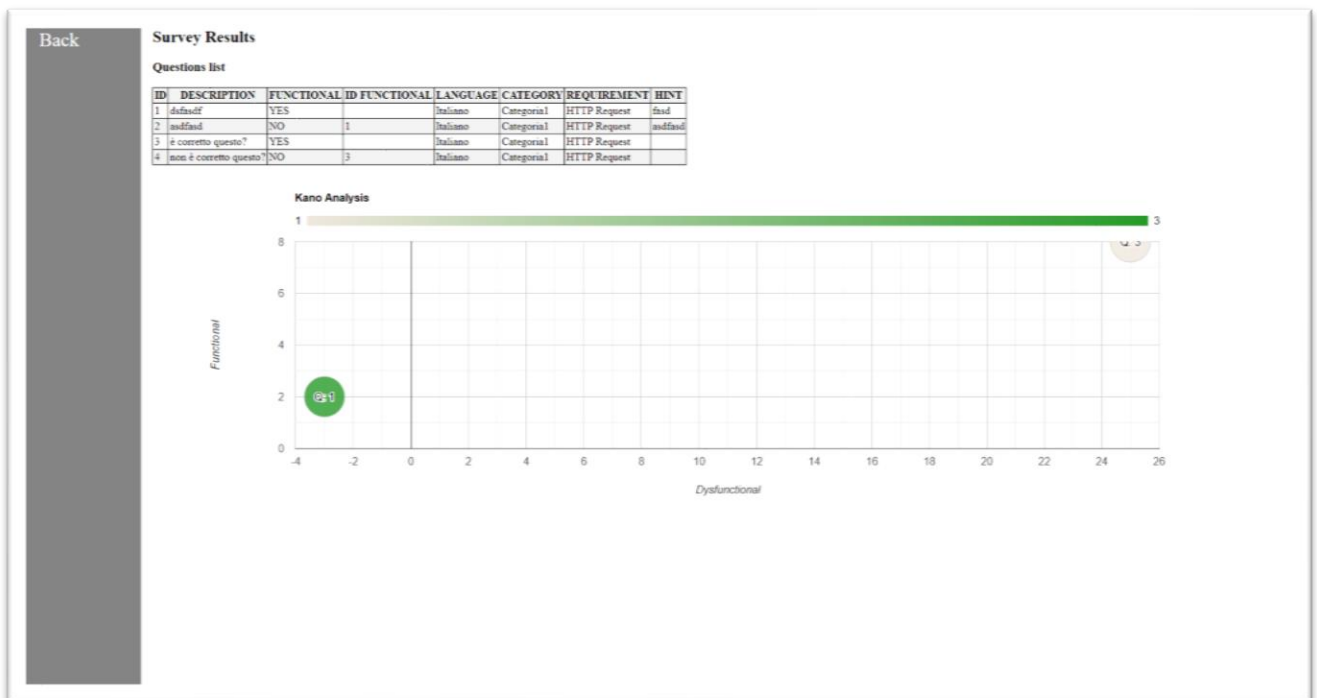
Export results

To export the results of the survey you can press “Export” under the first table displayed (the one who contains all the answer for each question).

Export Kano analysis

To export the Kano analysis you have to press the last “Export” link under all languages and categories.

Graph



To access the graph representation of the result, you have to press “Graph” link in the navigation bar, under the results section ([see how to access the results sections](#)).

In this page you have the questions list and then the bubble graph, the label inside the graph is the Id of the question related to the bubble.

You can easily navigate the graph with the mouse wheel (to zoom in and out) and the left mouse button (for pan).

Survey

The screenshot shows a survey form with a white background and a grey border. It contains two questions, both in Italian. Question 0 is a multiple-choice question with two options: 'yes' and 'no'. Question 1 is a multiple-choice question with two options: 'yes' and 'no'. Both questions have a hint field and a radio button for each option. A 'Submit' button is located at the bottom right of the form.

Question 0
dsfsdf
Hint: fsdf
*yes ☐ no
asdfsdf
Hint: asdfsdf
*yes ☐ no
How much importance has this aspect for you?
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Question 1
è corretto questo?
*yes ☐ no
non è corretto questo?
*yes ☐ no
How much importance has this aspect for you?
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

The questions and the answers are extracted in the language of the client (if is inserted otherwise in English).

The client's language is retrieved from the "Accepted-Language" field in the HTTPRequest.

The users have to compile the survey choosing the answer with mouse and then press the "Submit" button located to the bottom of the survey.

When button is pressed a "Thank you" message is shown.

Thank you to submit the survey!

How weights are calculated

The calculation of weights is very simple.

The software retrieve all the functional questions foreach language and category, then it join answers of every survey with their weights.

Foreach functional question are calculated the number of question and the sum foreach answer, then this are normilized ($\#weights/\#answers$). Then foreach functional question is retrieve the dysfunctional one and, same as functional, are calculated the sum of weight and number of response and then normalized.

The answers for the importance question are saved in a specific table in the database, but the process is the same. Foreach functional are calculated the importance score sum and the number of answers, then is normalized.

The functional weight normalized, dysfunctional weight normalized and the importance normalized are used to create the bubble graph representation.

x = dysfunctional, y = functional, the bubble's color for the importance (lighter = less importance).