

Survey: Is it a good explanation?

Preliminary Instructions

Please, read carefully before starting the quizzes.

What is this Survey?

This survey contains 2 quizzes and questionnaires on 2 different AI-based systems (AI means Artificial Intelligence).

What are the AI-based Systems?

You will be given access to these two AI-based systems: one for "predicting heart diseases", and the other one for "approving loan applications". Each system contains some mechanisms for explaining what's going on there.

The Quiz

We are going to ask you a few questions about the two AI-based systems. In order to answer them, you will have to use only the information that can be reached within the systems (e.g. by following the external links you may find in there). In other words, do not use Google or other external tools.

If you don't know an answer, click on "I don't know". There is only one correct answer for each question. When multiple answers seem to be reasonably correct, select the most precise one.

Every AI-based system has a different quiz with a small questionnaire at the end. The quiz is about the information contained in the system, while the ending questionnaire is meant to be your evaluation of the explanations given by the system.

Why?

To each one of you has been assigned a different explanatory mechanism. With your help we will be able to understand which explanatory mechanism is the best one.

How?

The systems you are going to see are NOT designed for touchscreens. Please use a desktop, laptop.

Quiz 1 - The Credit Approval System

The Link to the Quiz

The first quiz is available here. Do it just once. Click the link, then answer the questions, but before doing that, keep reading what follows:

- <http://www.quiz-maker.com/Q62OZFBBL>

The System

During this experiment you will have to answer some questions about a credit approval.

You will have to impersonate Mary, a 35 years old American that asked for a loan to the Bank.

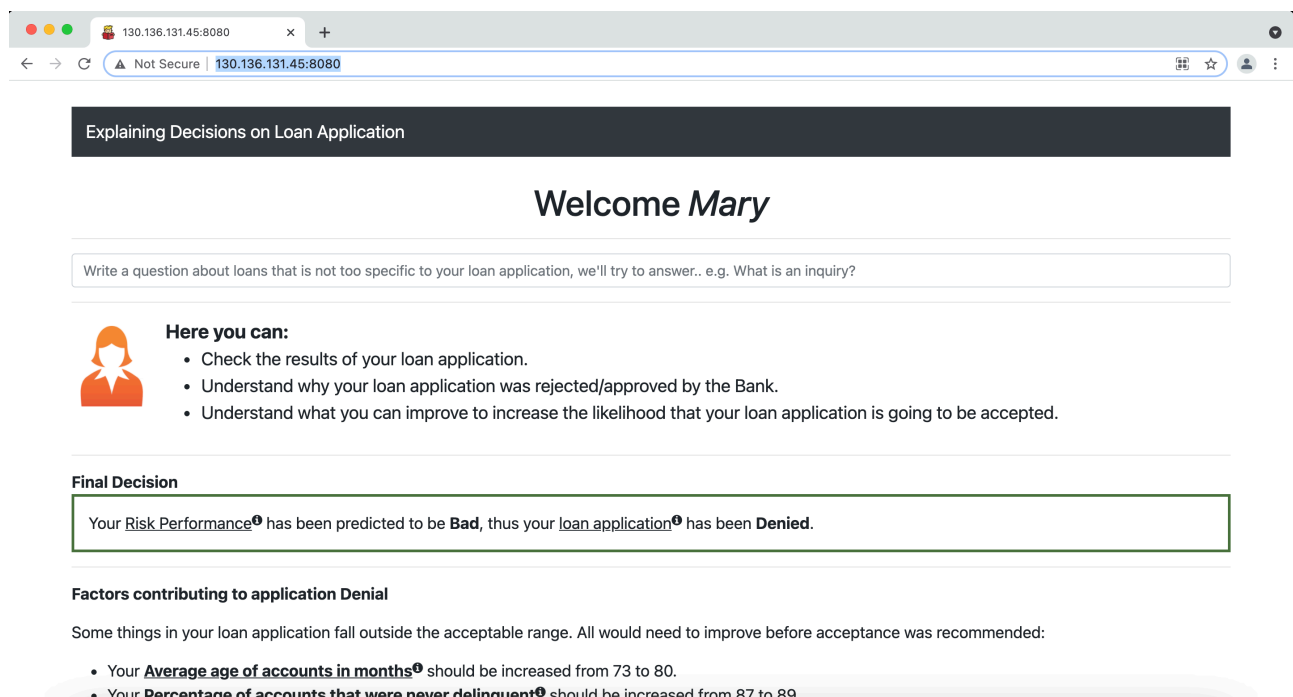
The Bank properly collected information about Mary, feeding it to its Credit Approval System.

Mary received an e-mail from the Bank pointing to a web-page containing the decision produced by its Credit Approval System. Mary opens that web-page, to understand whether and how she is going to receive the loan.

The web-page is:

- <http://130.136.131.45:8080/>

It might take a while for the site (<http://130.136.131.45:8080/>) to show up as in the image below.



The screenshot shows a web browser window with the address bar displaying "130.136.131.45:8080". The page title is "Explaining Decisions on Loan Application". The main heading is "Welcome Mary". Below this is a text input field with the placeholder text "Write a question about loans that is not too specific to your loan application, we'll try to answer.. e.g. What is an inquiry?". A section titled "Here you can:" features an icon of a person and a list of three bullet points: "Check the results of your loan application.", "Understand why your loan application was rejected/approved by the Bank.", and "Understand what you can improve to increase the likelihood that your loan application is going to be accepted." Below this is a section titled "Final Decision" with a green border containing the text: "Your Risk Performance[®] has been predicted to be **Bad**, thus your loan application[®] has been **Denied**." At the bottom, a section titled "Factors contributing to application Denial" states: "Some things in your loan application fall outside the acceptable range. All would need to improve before acceptance was recommended:" followed by two bullet points: "Your Average age of accounts in months[®] should be increased from 73 to 80." and "Your Percentage of accounts that were never delinquent[®] should be increased from 87 to 89."

You don't have too much time to spend, hurry up. This quiz should NOT take you more than 8 minutes.

Quiz 2 - The Heart Disease Predictor

The Link to the Quiz

The first quiz is available here. Do it just once. Click the link, then answer the questions, but before doing that, keep reading what follows:

- <http://www.quiz-maker.com/QIXHTPKLM>

The System

You are a first level responder of an online help system for heart-related health problems. You get basic questions from callers/patients. You are not a doctor but you have to decide on the fly whether the caller should speak to a real doctor or not.

So, you quickly ask to the caller some questions and use the XAI system (<http://130.136.131.45:8040/>) by yourself, trying to figure out how to explain the output to the guy and whether or not to forward his case to a doctor.

Your system is used by you, the responder, not by the patient.

The web-page is:

- <http://130.136.131.45:8040/>

It might take a while for the site (<http://130.136.131.45:8040/>) to show up as in the image below.

The screenshot shows a web browser window with the address bar displaying '130.136.131.45:8040'. The page title is 'Heart Disease Predictor'. The main heading is 'Welcome, Responder'. Below this is a text input field with the placeholder 'Write a question about heart diseases, we'll try to answer.. e.g. What is angina?'. A green shield icon with a checkmark is next to the heading 'Here you can:'. The list of capabilities includes: 'Predict the likelihood of having a heart disease[Ⓢ], from vital parameters[Ⓢ] (e.g. blood pressure[Ⓢ]).' and 'Understand the next concrete actions to suggest to the patient, to prevent/treat an heart disease[Ⓢ].' A disclaimer states: 'N.B. The information provided in this dashboard should not replace the advice or instruction of your Doctor or Health Care Professional.' The section 'Heart Disease Predictor' explains the use of XGBoost[Ⓢ] and Tree SHAP[Ⓢ]. The 'Patient Demographics' section shows input fields for 'Age (years)[Ⓢ]' (value: 21) and 'Gender[Ⓢ]' (value: Male). The 'Recommended action(s) for a patient in the medium risk group' section contains the text: 'Discuss lifestyle with a doctor and identify changes to reduce risk. Schedule follow-up in 3 months on how changes are progressing. Recommend'.

You don't have too much time to spend, hurry up. This quiz should NOT take you more than 17 minutes.