**Product Design**

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# **Design Model**

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| Customer | Class state:  Types his/ her queries into the chat window text box provided  Receives response from the bot  Class behavior:  Thinks of query.  Inputes it |
| Chat window | Class state:  Acts as a middle man between the customer and the database  Sends the query from customer to database  Gets response from database and displays to customer  Class behavior:  Input(): Gets query from customer  Display(): Displays whatever is sent  Retrieve(): Retrieves response from database |
| Database | Class state:  Processes the input string sent by customer  Matches with a response by keywords and substitutions  Returns appropriate response  Class behavior  Matchquery(): processing and matching the input  Returnanswer(): Send answer back to interface |

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# **Sequence Diagram(s)**

**Design Rationale**

Our objective was to make a chat bot to replace FAQ sections of web pages. It had been ascertained by our client that lots of major businesses have archaic help sections in their web pages. It didn’t help that these sections skipped some questions, which the consumers might have, and so she would have no way to get an answer to that other than calling up the customer care. This process is often tiresome and sometimes doesn’t resolve the problem quick enough for it to be of any value to the consumer.

Our bot comes in here and replaces the entire mess the help sections are with a simple chat box interface. The business gives a set of pre decided questions and answers to us and we train the bot with well enough so that it understands the questions even when asked in a different way.

Sometimes a business cares about the amount of time a person spends on their website and want to maximize it. This could be to increase revenue flow from ads or any other thing. To facilitate this, we also trained the bot extensively to be able to converse casually. We have given the bot human attributes such as a name, age, nationality etc to give it a more humane feel. It can hold conversation with a person without getting repetitive for a long time. One thing our bot can’t do is use crowd sourced information or current affairs. So if we were to ask it about the scores of a football match last night, it would be clueless. But we figured this wouldn’t be necessary since the primary reason for the bot would be answering pre determined questions not dynamic ones.

Also we will have a database which will store all the questions asked to the bot, this way in case new questions are asked which the bot can’t answer, can be recovered from the database and can be added to the bot’s knowledge base i.e. trained.

Also a big red button will be added which can be used by the user as a escape route when the bot isn’t able to answer their question, the button will link to a messenger live chat with a real company representative who can answer the question immediately.

We have also added inappropriate filters so that the bot cant be used to talk about stuff the site owners won’t approve of. This can easily be reverted if the owner wants to.

Overall this would be a beautiful replacement for clumsy current help sites and make it really easy for the end users.