

V.A.N.I. (Voice Automated Notes and Information)

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Abstract - The main objective of this project is to create an AI enabled system to record notes/daily information for an individual irrespective of any specific domain. The machine will be designed in such a way that it can search the web at backend and give customized results to user hence saving the time user. Let's take an example suppose a person with a diabetic vein wants to cook biryani for himself but he doesn't know how to cook, instead he will ask V.A.N.I to do the search on web for biryani recipes. V.A.N.I. with the data given to her at time of installation will discover some unique and customized keywords for searching the recipes saving user's time and efforts. V.A.N.I. will search with a keyword as Biryani recipes for diabetics and not just biryani recipes as V.A.N.I. knows the user is diabetic. Also V.A.N.I. will be able to record different events for the user and can also transform them into keywords for future search.

Key Words: Voice Automated Notes, Speech to text, Text to speech, Information, Saving Notes, Voice Commands.

1. INTRODUCTION

Humans are always fascinated with self-operating devices and today, it is software "Chatbots" which are becoming more human-like and are automated. The combination of immediate response and constant connectivity makes them an enticing way to extend or replace the web applications trend. The main objective of this project is to create an AI enabled system to record notes/daily information for an individual irrespective of any specific domain. The machine will be designed in such a way that it can search the web at backend and give customized results to the user hence saving the time for the user. Let's take an example suppose a person with a diabetic vein wants to cook biryani for himself but he doesn't know how to cook, instead he will ask V.A.N.I to do the search work on web for biryani recipes. V.A.N.I with the data given to her at time of installation will discover some unique and customized keywords for searching the recipes saving user's time and efforts. V.A.N.I will search with a keyword as Biryani recipes for diabetics and not just biryani recipes as V.A.N.I knows that the user is diabetic. Also, V.A.N.I will be able to record different events for the user and can also transform them into keywords for future searches.

2. PROBLEM DEFINITION

In today's world every individual makes use of browsers to find answers to n number of queries. These searches are not

customized to the users at all. The search results only provide outputs that are relevant to the search query. In this system, data prediction algorithm helps user to fetch customized results as the query entered by user is processed by the system before it is submitted to the browser. [1]

3. PROPOSED SYSTEM

We have developed a web application that can search the web on user provided query by appending the query with customized set of keywords that differs from user to user. We have covered two important domains in our system i.e. Health and Smartphone. Based on our survey these domains have a large amount of search query on the web. Let's say for example, if a user wants to search for "biryani recipes" on the web, what user actually does is they simple type the query on web, now if the user is diabetic and he/she want to search for biryani recipes then he/she has to edit the search query accordingly to "biryani recipes for diabetics". Now in our system user can simply search for biryani recipes and the result fetch would be based on the query "biryani recipes for diabetics". This makes the system more efficient in showing results to user also time is saved. The health-related details are given by the user during signup process. Advantage of our system is user need not provide basic health related details every time he/she wants to search for something on the web. If the search query is relatable to health domain the system will append the query accordingly. [2]

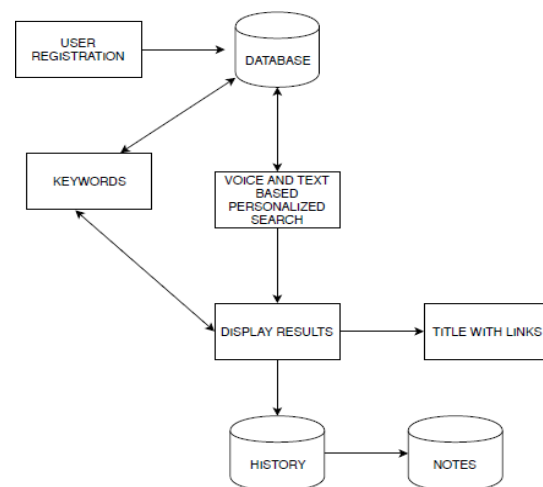


Fig -1: BLOCK DIAGRAM

- **User Registration:** First and the most important step here is the registration. Here, the users enter each and every data required for customize search in future. Health related details of the user along with smartphone name used by the user. All this user defined data will be used along with the search queries to provide customize results to the user.
- **Keywords:** Keywords are the part of query which user fires through the system. The system here is trained with multiple keywords to enable different searches through it. The system is trained with various food dishes to enable customize search with user queries. Also customize results for different smartphone details are provided to user on the system.
- **Voice and Text Based Customized Search:** The command method for the system is also voice enabled user can simply speak the query which is needed to be searched. This voice command is converted directly to appropriate text and the query is fired automatically.
- **Results:** The results for the input query are fetched from the server. Also, the system monitors that if details provided during registration by the user can be used along with user defined query then the query is appended with the desired keywords from the database and further, results for this processed query is displayed to the user. The displayed result also has a functionality to open the respective link in the browser which help user to view the webpage on the go. [3]
- **History:** The results provided to the user are real-time so the system takes the record of each search query along with the results and also with the keyword of the search results. This data is stored as history in the database to provide user an option to revisit the previously searched results which also includes keywords of each search result unlike any other search browser. [4]
- **Notes:** It might be possible that the user wants to save any of the search results for future reference or any other purpose. The system functionality of notes generation enables the user to save specified search history to notes along with the timestamp for future reference. [5]

- 5) The results are being displayed as well as spoken by the vani
- 6) Choose from appropriate results provided.
- 7) Go to history tab and click on Add to Notes to save it.
- 8) Vani gives voice acknowledgment that the notes have been saved.
- 9) And then you can go in your notes tab from the dashboard and see as well as access the saved results on the webapp or can open the link in newtab.

5. TECHNOLOGY USED

- Http Guzzle Symfony Library
- Dom Crawler Symfony Library
- MySQL/MariaDB
- Node JS
- Bootstrap and Materialize CSS

6. IMPLEMENTATION DETAILS

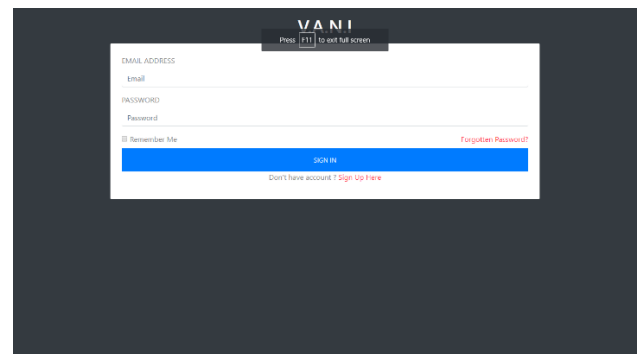


Fig -2: LOGIN PAGE

Usual Login Page for user to authenticate and authorize users to their account.

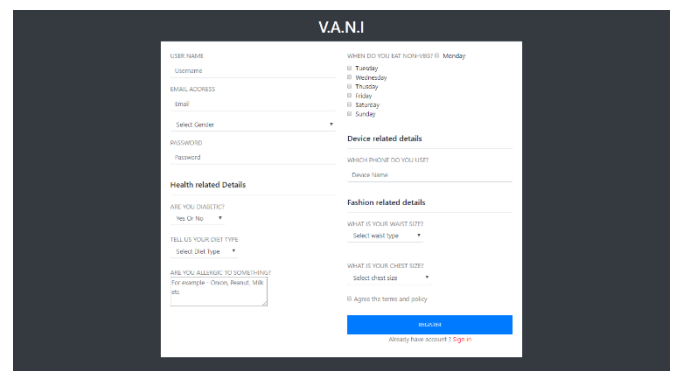


Fig -3: SIGNUP PAGE

4. ALGORITHM

- 1) SIGN UP by going on our Webapp.
- 2) After sign up, login using your credentials.
- 3) When required just say the words or sentences you want to search for by clicking on the mic button on dashboard.
- 4) Can also search manually by typing.

The registration or sign up page for users consist of all data which can be needed to give customize search results to the user.

Also, on entering any mobile related accessories the system appends the query with the mobile name of the user to provide customize results out from the web.

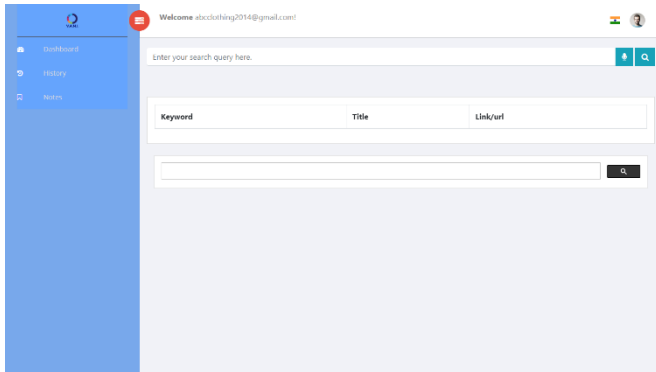


Fig -4: DASHBOARD

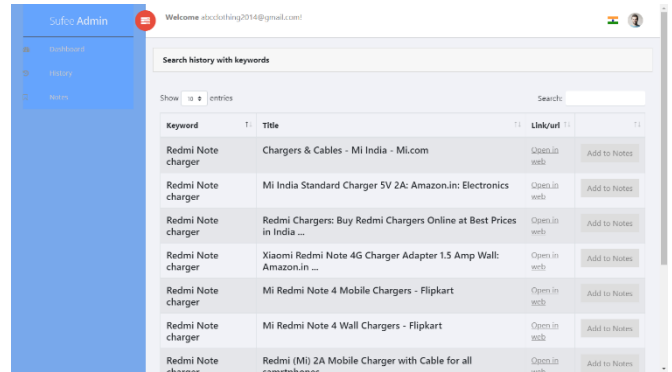


Fig -7: SEARCH HISTORY

On authorization of the user the web app takes the user to the dashboard where they can fire their query also there is a side menu available for users to navigate through each page during the session.

User is also given an ability to view their search history accordingly.

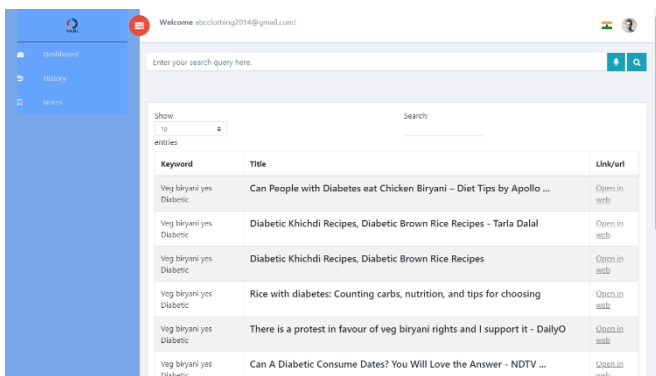


Fig -5: RESULTS

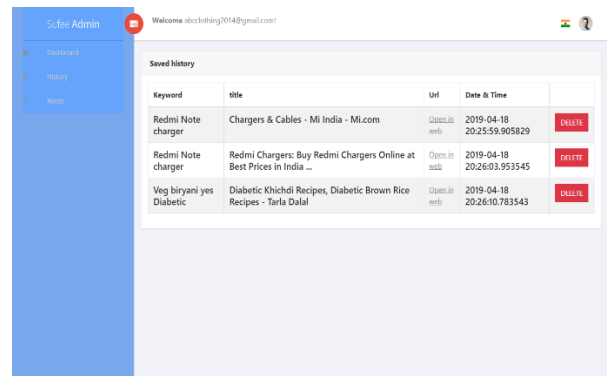


Fig -8: SAVED HISTORY

From above snippet we can see the when user types biryani and submit it to the system. The system crawls the entire web and fetches the results based on keyword “veg biryani yes diabetic”. Normal searches only search for user provided queue.

If the user wants to save particular link for themselves, they can do that by simply saving it to notes. Also, user can view the date and time of when the notes have been saved along with an option to view the particular link in browser, this option is included on history and dashboard module as well.

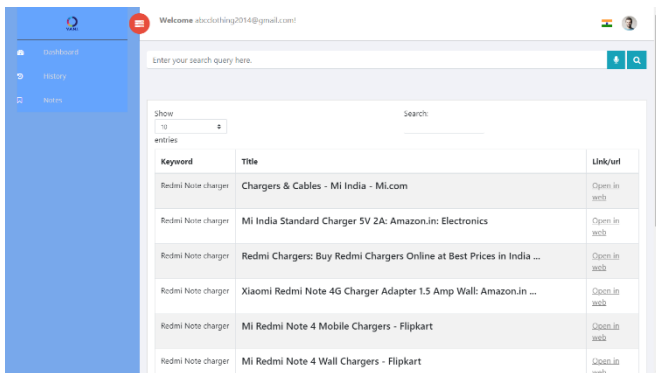


Fig -6: SPECIFIED RESULTS



Fig -9: ON CLICKING LINK

On clicking the link user gets redirected to linked page and get the desired data with ease and by saving time.

7. CONCLUSION

We have developed a system which is capable of searching through voice commands as well as text-based commands. It also saves the search results in notes section. It provides the user with customized search that is search based on user profile. It is also able to order food according to the timestamp i.e. for e.g. user wants to order a biryani so it can automatically detect the day and order it accordingly that is either veg or non-veg. Hence, we have developed a system which is secured and efficient with ease user interface for the user.

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