

# CSE4015-Human Computer Interaction

## J-component review 1

TITLE: VOICE/CHATBOT AND WEBSITE FOR COMMUNITY FORUMS

SUBMITTED BY

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# Functional Requirement Analysis

## USE CASE DIAGRAMS

### System Features

#### Android app

- The voice/chatbot shall be able to reply to questions if a particular answer is available on the website.
- The user can choose to type a question or narrate it using the mic.
- The theme of the app is decided by the end device system theme and is in line with the users' default choice like in many popular apps(WhatsApp, Instagram, Slack, MS teams etc)
- The answer will be narrated if the question is asked with the mic.
- All responses are answered in a format similar to text message bubbles.
- After a session is destroyed, the users' queries are immediately discarded to save storage and enhance privacy.
- The chatbots knowledge updates in real time to the websites changes.

#### Web Application

- User can view question and answers without login.
- User can signup to website to answer questions.
- Answer will be posted on main page once posted
- Only 1 line answer will be viewed on main page and will have "Read more" link
- Every question will have its own dynamic webpage to view full answer.

## Non-Functional Requirement Analysis

- Ease of usage
- Quick and hassle free set up
- The Language supported is only English
- The questions it will be able to answer are limited by the websites data
- The response time should be under 5 seconds
- Database maintenance is done regularly to filter out ambiguity.

## Task Analysis

Users can perform any of the following tasks

1. Launch Android app
  - 1.1 Click on app icon to launch the app
2. Change theme
  - 2.1 User changes the system theme
  - 2.2 App changes the UI to the theme selected
3. Ask questions
  - 3.1 Type question
    - 3.1.1 The user selects the text window
    - 3.1.2 The user enters the question using keyboard
    - 3.1.3 The user clicks on the send button
    - 3.1.4 The user will view the answer on the screen
  - 3.2 Use voice to ask question
    - 3.2.1 The user unmutes the mic.
    - 3.2.2 The user speaks the question.

- 3.2.3 The mic simultaneously processes and types the question on the text box.
- 3.2.4 The mic is muted back by the user
- 3.2.5 The question is sent
- 3.2.6 The response is viewable on screen and is narrated by the device simultaneously

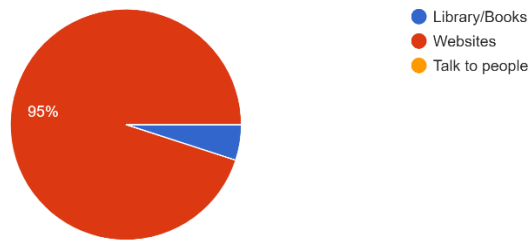
User can perform following tasks on website:

1. Open Website
  - 1.1 Type URL of website to open it
2. Signup
  - 2.1 The user types his/her email id
  - 2.2 The user types password in Password box
  - 2.3 The user types password in Retype Password box
    - 2.3.1 If password matches, button turns green
    - 2.3.1 If password doesn't match, it turns red
  - 2.4 The user clicks Submit
  - 2.5 Data is sent and stored to database
3. Login
  - 3.1 User types his/her id
  - 3.2 User types his/her password
  - 3.3 Clicks on Submit
  - 3.4 Data is sent to database to check
    - 3.4.1 If data matches, "compose" page is opened
    - 3.4.2 If data doesn't match, "login" page relauches with Try again
4. Read Answers
  - 4.1 User can view questions and single line answers.
    - 4.1.1 User can click on "Read more"
      - 4.1.1.1 New tab with full answer is opened
5. Compose Q&A
  - 5.1 Registered User can type question & answer
  - 5.2 Once user clicks on submit button, Q&A is submitted
  - 5.3 Q&A is uploaded on main page

## Online Surveying and Response Analysis (Google Forms)

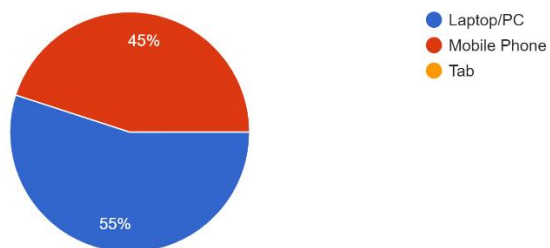
Which source do you use the most when you need some information?

20 responses



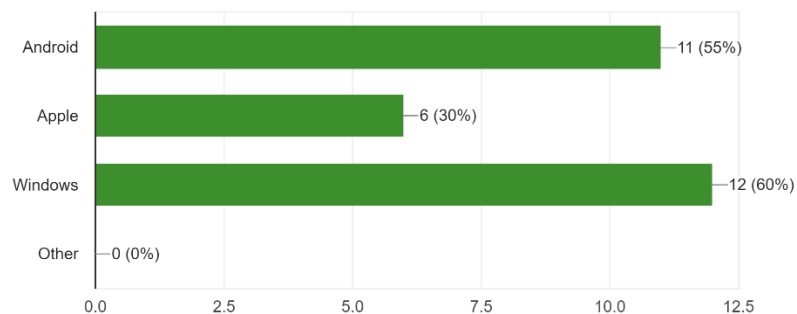
Which type of device do you use the most?

20 responses



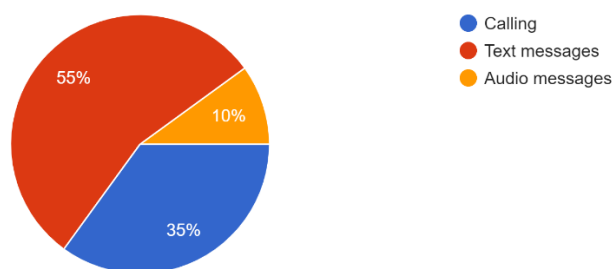
Which OS do you use ?

20 responses



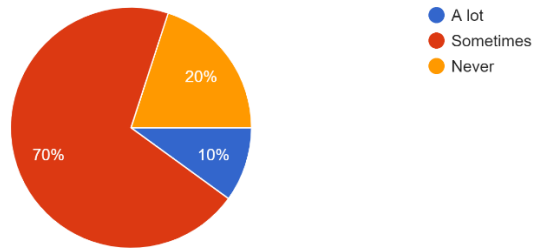
What mode of communications do you prefer?

20 responses



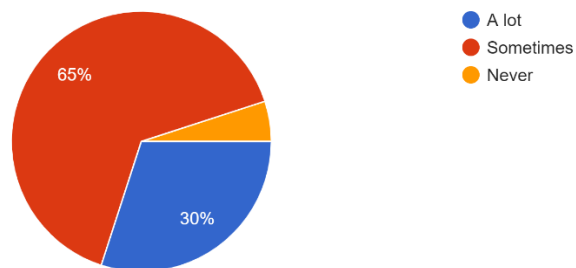
Do you use voice assistants like google assistant ,Siri ,Alexa?

20 responses



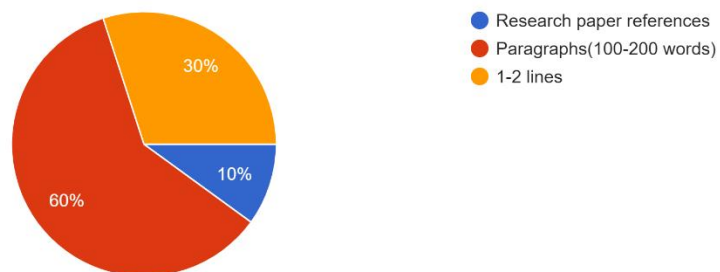
Do you use websites like Quora and Stack Overflow ?

20 responses



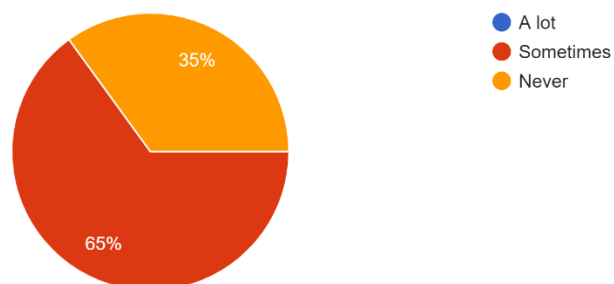
What type of answers do you prefer on these websites?

20 responses



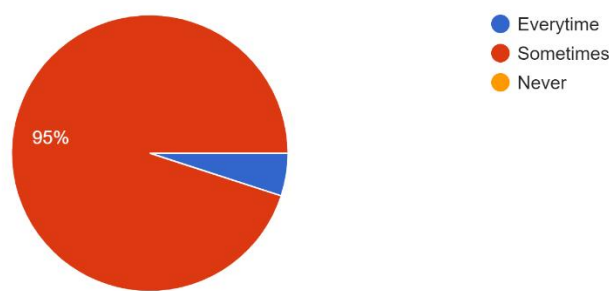
Do you help answer question asked on platforms like Quora or Stack Overflow?

20 responses



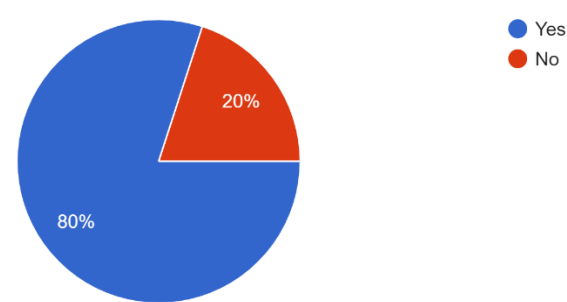
How much do you trust information on these websites?

20 responses



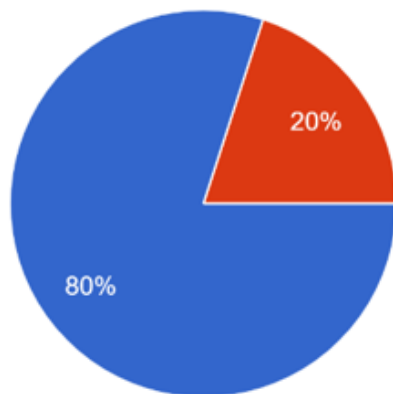
Would you like to have your own Chat bot voice assistant linked with websites like these?

20 responses



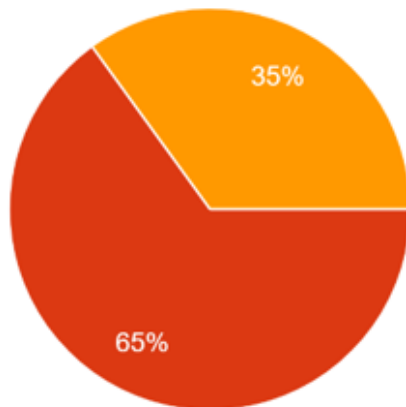
## User Profiles

1. Enthusiasts – 80% of all users



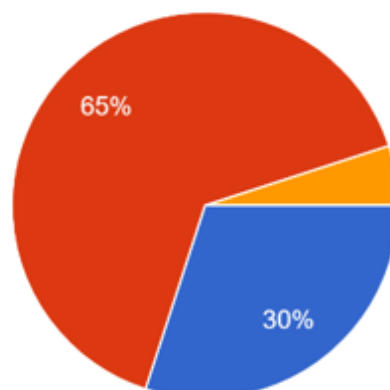
● Yes  
● No

2. Contributors – 65%



● A lot  
● Sometimes  
● Never

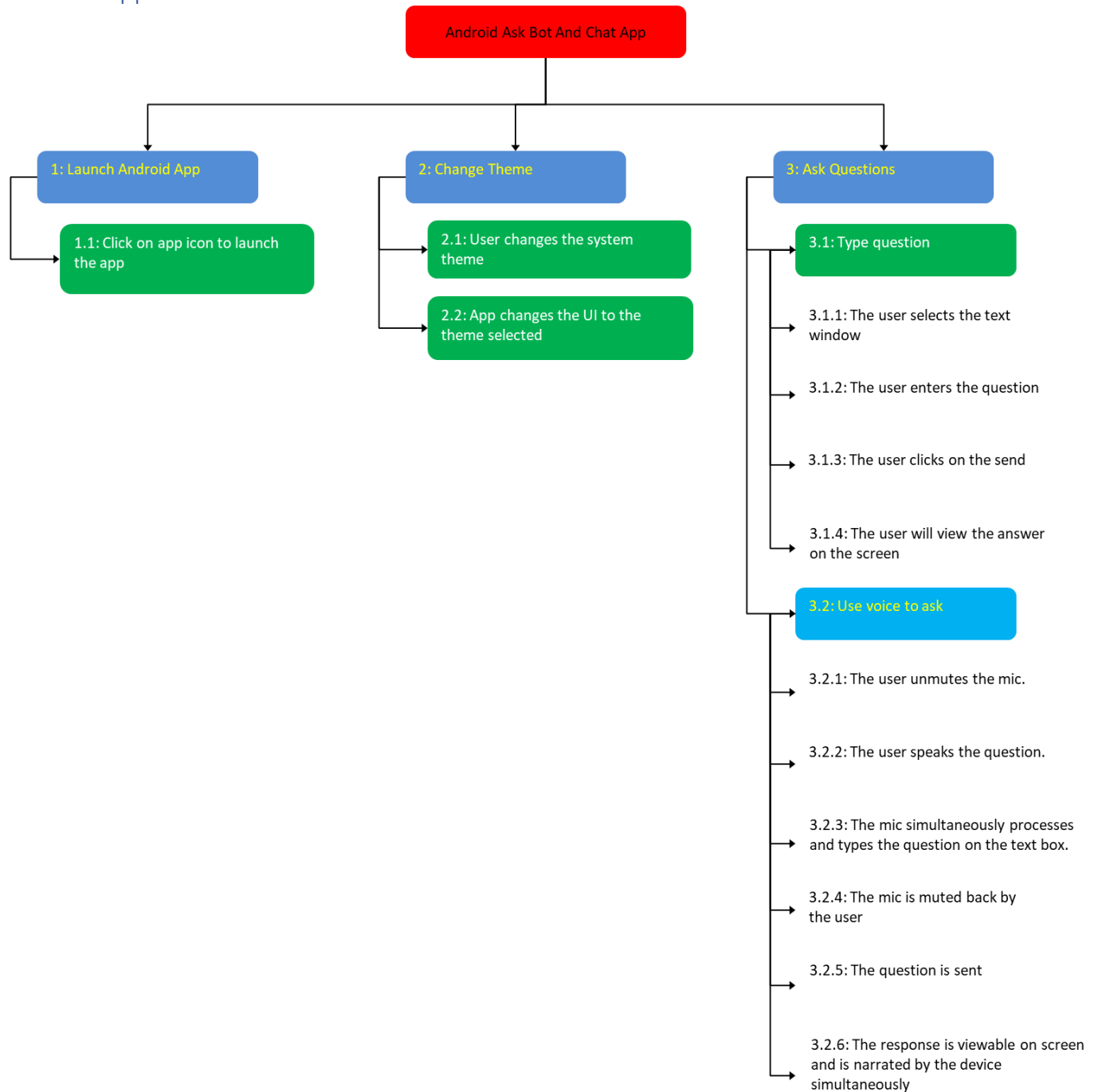
3. 95% users familiar with similar application.



● A lot  
● Sometimes  
● Never

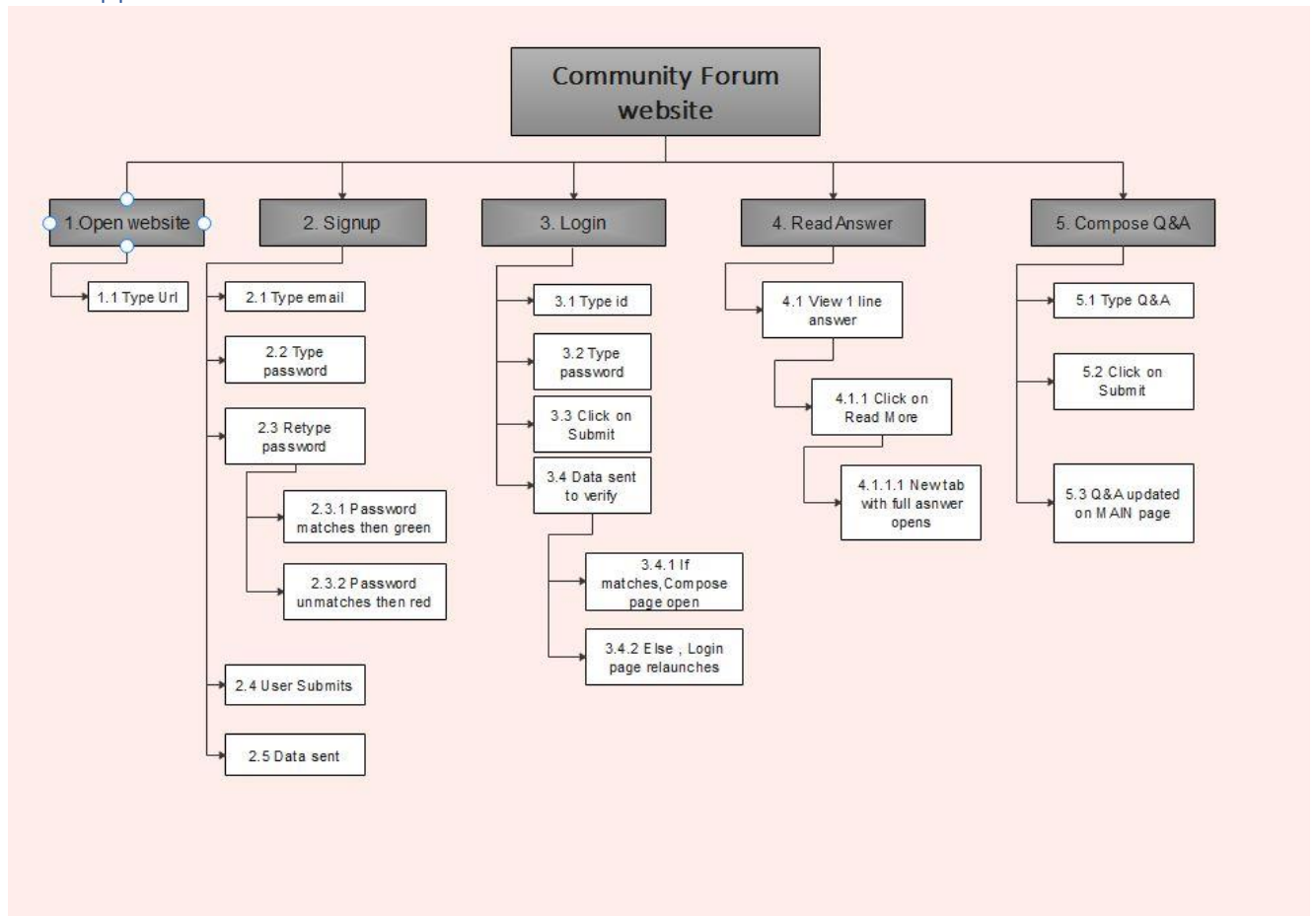
# Hierarchical Task analysis

## Android App

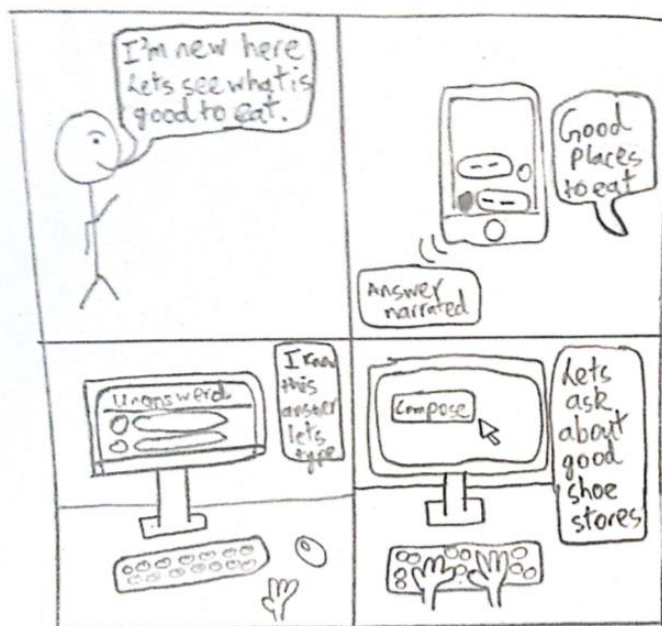




## Web Application



## Story Board



### Other situations

- ① Common tamil words
  - ② Stationary Shops
  - ③ Best local tourists sites
- etc.