# Development of Mobile Application for Knowledge Building through Machine learning for Student

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*Abstract*— This study aimed to develop a mobile application (app), for the student self improvement and guidance to student. Today diversified users query over web search engine for information retrieval. Traditional web search engine related with the online documents or link. They are provides the many links to users to give the solution of his query. It doesn't provide the helpful information like images etc. Therefore the process is time consuming. Because of this time and money is waste. To overcome these issues proposed mobile application is used with offline and gives the instant solution to user using machine learning. This application can provide the services for result of every query like any user can type the text 'hi' then it gives the instant replay 'hi'. This mobile application is available 24/7.

***Key words:*** Machine Learning, database, query, Knowledge bot, Artificial intelligence, etc

## I. INTRODUCTION

The offshoot of the information technology and communication has been complex in implementing of artificial intelligent systems. The method are approaching of human activities such as decision support systems, robotics, natural language processing, expert systems, money Even in the artificial intelligent fields, there are some loan blend methods and adaptive technique those make more complex methods. Not only that, but nowadays there is also a hybrid of natural language and intelligent orderliness those could understand human natural language. These organization tins learn themselves and renew their cognizance by education all electronics articles those has been existed on the internet. Human as user can ask to the method like usually did to other human. These systems are often known as internet answering-engines. In supplements the internet answering-engines, currently in the internet also begins many applications of chatter-boot or known as knowledge bot which is often aimed for such intention or just amusement. This surrender employment is very simpler because the education already programmed in processes. One of methods used in this application is to match the pattern (pattern-matching) [3]. The knowledge bot would match the input decision from the loudspeaker or exploiter with pattern that has existed on the knowledge. Each pattern paired with the knowledge of knowledge bot which taken from various sources. The strength decision prepared as the materials of chat pattern. The tendency of pattern matching is using a sentence similarity measurement scores.

Other knowledge storage agency of knowledge bot is artificial intelligence markup language (AIML) [5,6]. The AIML has modularly knowledge processes. This outline is a hammock service-based which could be accessed by client. The chat ideal are language understanding in the format of AIML stored in the database. This schemes could be added a specific knowledge modules. In this paper shows the collected reality as prepared references for chat-pattern and this chat uses Indonesian language.

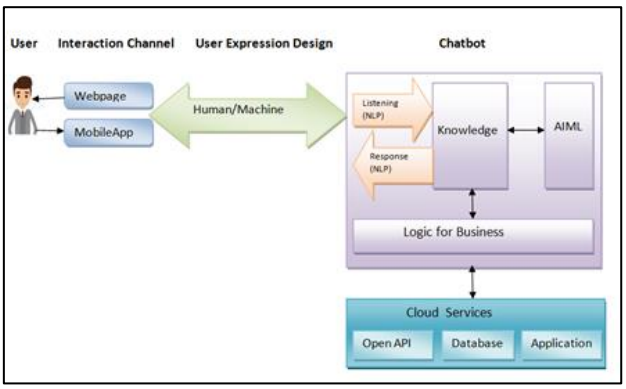


Fig. 1: Architecture Diagram.

Users:user contain end user, who use our app and web page.

Intraction Channel: User can communite with us using different intraction or sources like web page and mobile application

User Expression: User Expression Design containe Humna and machain both can send and reciver information using app and web page, information such as- text information knowledge bot Listening(NLP): Listening user input lite text to voice, in case voice input need some processing on input to convert voice to text

Responsing: Return result information Knowledge: In this knowledge have dataset of bot, that collect when we set on bot training,

AIML stands for Artificial Intelligence Modelling Language. AIML is an XML based markup language meant to create artificial intelligent applications. AIML type it possible to create human interfaces while harmony the request simple to program, easy to understand and highly maintainable. This tutorial evidence teach you the fundamentals of AIML.

## II. RELATED WORK

### A. *Algorithm:*

```
Input: Query for example Hi
Output: Bot replay for example Hi or Hi there
Q-> Input query "Hi"
Set module/ select module according to string
If(Q==string)
{
      Get similar data from database or other sources
      While(r.s data())
   {
          Multiple data featch
          //Store into list
}
//Pick any of them multiple data
          Return data;
}
        Else if(Q==Math equation)
{
```

 

Q0 to calculator function
Sort equation into prefix or regular expression format
Solve equation
}
Return answer;

## III. DATA SYNCHRONIZATION MYSQL TO SQLITE ANDROID:

- Create JSON array using javax.json package
  Example [{"Question":"Hi", "Answer": "Hi"}]
  In above example format
- And send to Android application by hitting synchronize button an app
- insert one by one into SQLite database for offline purpose

### *A. Mathematical Model:*

Step 1. Let S be a system that describes the execution of the application.
S = {…..}
Step 2. Identify the subsystem as M
S={M,...}
M={E,R}
where,
E = Predefined Questions .
R = Undefined Questions.
1) Identify power to E as Ie.
Ie= {W , n}
where,
W= Defined Questions With Answers.
n=Number of manner to ask a particular question.
2) Identify the unit of R as Mr
Mr= {Tl, Lv }
where,
Tl= Time required for transfer module.
Lv=Live food module.

### *B. Input to Tl is Time required for transfer:*

Where,
Time required for replacement = Time limit required for generating response.

### *C. Input to Lv is Live Support:*

Where,
Lv = Live Support module.
Step 3. Identify the Processes as P
S={M,P,...}
P={Pg,Pf,Pc,P_disp}
where,
Pg = Process of Getting Query.
Pf = Process of Finding Query.
Pc = Process of checking Query.
P_ disp = Process of displaying Answer for query.
Step 4. Identify the powers as O.
S={M,P,O,...}
O={Or, Ow}
where,
Or= Output Defined Question
1) Context Aware Answering
Ow= Output for Undefined Question.
1) Time Elapsed
Step5. Identify the success as Su.
S={M,P,O,Su,...}
where,
Su= Success is when the accurate answer is generated based on questioning context.

### *D. Identify the misadventure as F.*

S={M,P,O,Su,F,...}
where,
F= When improper venture are done.
The schemes tins be described as
S={M,P,O,Su,F}

## IV. PROPOSED SYSTEM

- The proposed system is based on the machine learning so it provides the exact solution within in seconds .This application provide the offline service to the students .This mobile application provides solution anywhere at anytime. In the system When student enter in the application it open the registration form then student login in the application.
- If student has any query then enter his query this query is translate to machine and this transmitted query going to machine learning algorithm.
- Then process these query matching the query answer and analyzing the query and transfer to the user display screen as an answer.

## V. RESULT

### *A. Selection for Online or Offline search:*

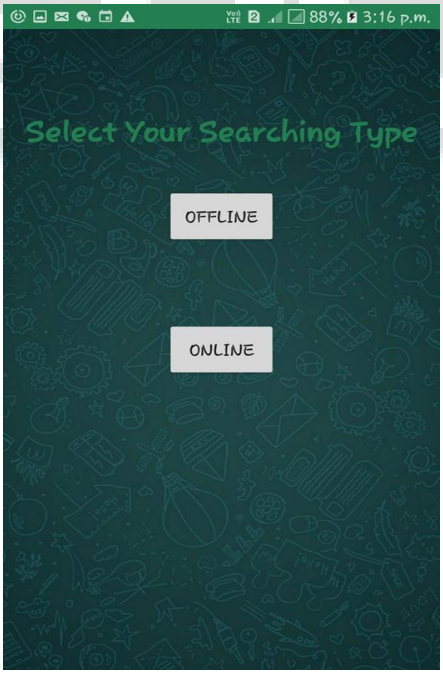


Fig. 2: Selection for ONLINE or OFFLINE search

 

*B. RESULT for Online Search:*

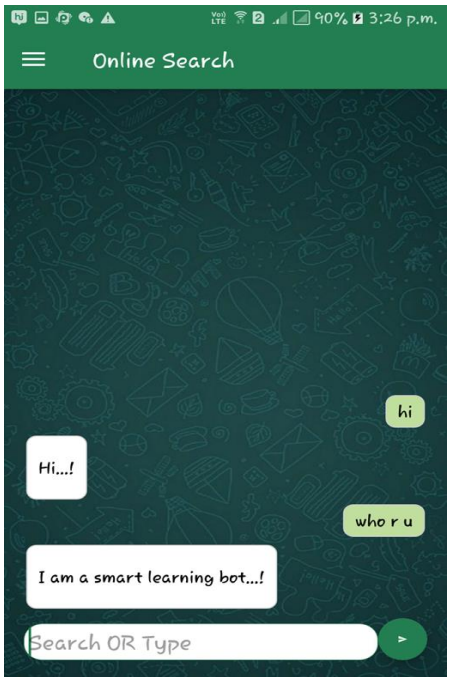


Fig. 3: Result for Online Search

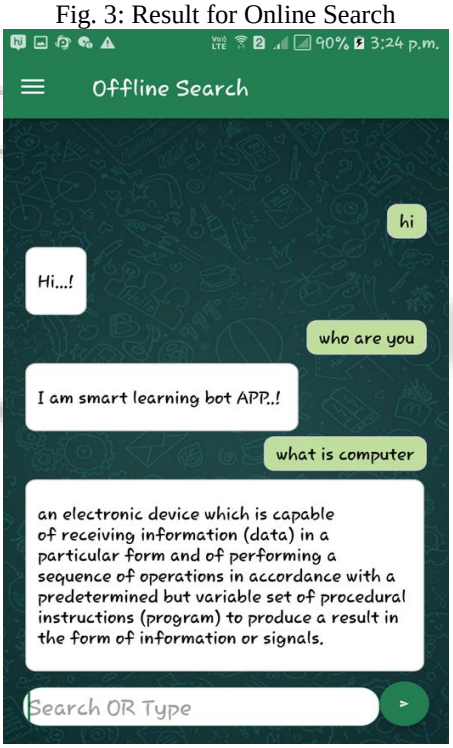


Fig. 4: Result for Offline search

## VI. CONCLUSION

In the study, development of mobile application went through many process like machine transformation, analysis, machine learning. It was attempted to increase the knowledge of student and helpful for the student by giving the test modules for the increase the knowledge level of the student.

We propose a new mobile application in android for the student query to give proper or exact solution. Our mobile application is used to reduce time complexity and human dependency. Using this application student can access the application anywhere at any time.

## REFERENCES

The heading of the References section must not be numbered. All reference items must be in 8 pt font. Please use Regular and Italic styles to distinguish different fields as shown in the References section. Number the reference items consecutively in square brackets (e.g. [1]).

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