



Programmer Assistant Bot - PSBot

Project Supervisor : Dr.Samia Souissi

Project ID : UQU-CS-2019F-20

Authors : Kholoud Khalid Owais , Reem Moteb Alrogi , Amjad Hulayyil Alotabi , Waad Mohammed Alotaibi , Maryam Alsalik Fal

Department Of Computer Science - Umm Al-Qura University - Makkah KSA

Introduction

Learning programming has become a demand of many people; even children learn programming from young ages.

Beginners in learning programming suffer from lack of knowledge of the correct way, and correct resources in learning programming.

It is also difficult to communicate with other programmers, as the learner does a lot of searches and audits, and takes time and effort to reach the desired results.

From this point this project aim to use technology to help the learners of programming to learn in new ways. and the most interested way is chatbot because it has become a major breaking technological innovation of the recent decades.

The chatbot contributed in education through conversation between bot and learners. While learners enjoy and get the desired pseudocode answer with brief description.

2 Proposed solution

Development tools



6 Training

The data set was collected from the first-level of computer programming at Umm Al-Qura University in the College of Computer and Information Systems

The dataset has 714 rows of data with 15 classes. Chatbot cover all basic concept of programming such as : Selection statements , looping and arrays .



7 Testing

* **Response time :** the chat bot take a few millisecond to answer





Receive voice

In this step we will take the user's voice and convert it to text using API

Please give me the maximum of two numbers using if else

Classify response

In this step we will detect the best matched response

> \checkmark if $a \ge b$ then max = aelse max = b

Preprocessing

In this step we will clean the user question : normalize, spell checking, replacement, tokenize, remove punctuations, remove stop words, stemming, lemetization

> plea give maximum of two number if els

Classify class

In this step we will detect the best matched class V

IF-ELSE class





ص 02:19



8 **Conclusion**

ص 02:20

ype your message..

- The project provide the following services :
- Users able to ask the chatbot using voice or text.
- Users and programmers able to communicate with each other.
- ***** Users can follow the latest programming news.
- Programmers can upload programming news.

References & contact information 9

Contact information :

Supervisor Dr.Samia Souissi : smsouissi@uqu.edu.sa Kholoud Khalid Owais: <u>Kholoud.Owais@hotmail.com</u> Reem Moteb Alrogi : <u>reem_alrooqi@hotmail.com</u> Waad Mohammed Alotaibi : <u>w.a.3.d@outlook.sa</u> Amjad HulayyilAlotabi : <u>amgad443344@gmail.com</u> Maryam Alsalik Fal : <u>Mayam35@hotmail.com</u>



