

# **EVA- Educational Voice Assistant (For College)**

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# Outline

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# Introduction

- EVA -Educational Voice Assistant is an integrated virtual assistant for College. This AI system utilizes a speech-to-text API that allows users to speak and generate corresponding output results.
- In conjunction with the database foundation, AI can be developed for providing personal assistance to people inside or visiting the campus.
- The app is developed using the Flutter framework and SQLite database management system.

## Problem Definition

- There is a need for a more efficient and convenient way for college students, faculties, and visitors to manage their academic activities, and a lack of a proper system for accessing information regarding the college and its facilities.

# Methods

- Voice Input - Voice is recorded using the system mic.
- Speech-to-Text conversion - Recorded voice is converted into text using [openai/whisper-large-v2](#)
- Text-to-indent - Converted text is processed to find the user's indent. [facebook/bart-large](#)
- Output generation - Fetches answer from the database based on indent produced.

### ■ Chatbot at Saint Louius University using the QnABot

by Bob Strahan and Brooke Gleason — on 17 OCT 2019 — in Alexa, Alexa For Business, Education, Higher Eduaction, Public Sector

**Saint Louis University's QnABot**

Description	Merits	Demerits	Method used
Saint Louis University's QnABot based educational chatbot that supports all modes.	Expand existing and grow new channels.  High quality speech recognition and natural language understanding.	Compatibility is a big issue. It only works with paid premium Alexa integrations and only if there is an echo speaker nearby.	Amazon Web Services (aws) Amazon Alexa and Amazon Lex

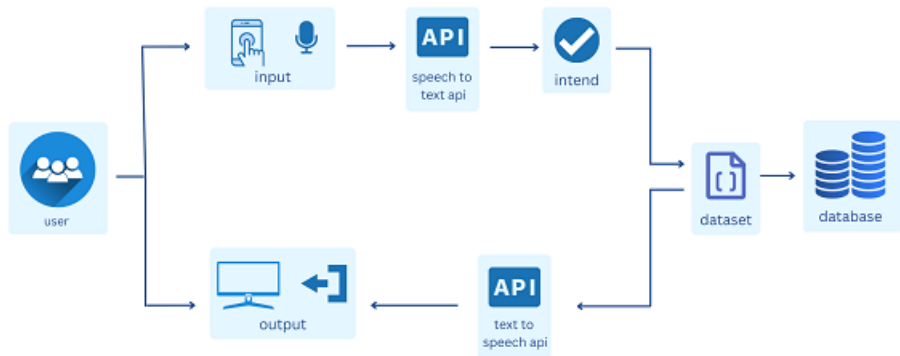
## Related Works cont.

### ■ Ada, the digital assistant of Bolton College.

by Deepthi Dwibedy — Enabling Digital Transformation through API-led Connectivity and Cognitive App Development — Sept 27 2017

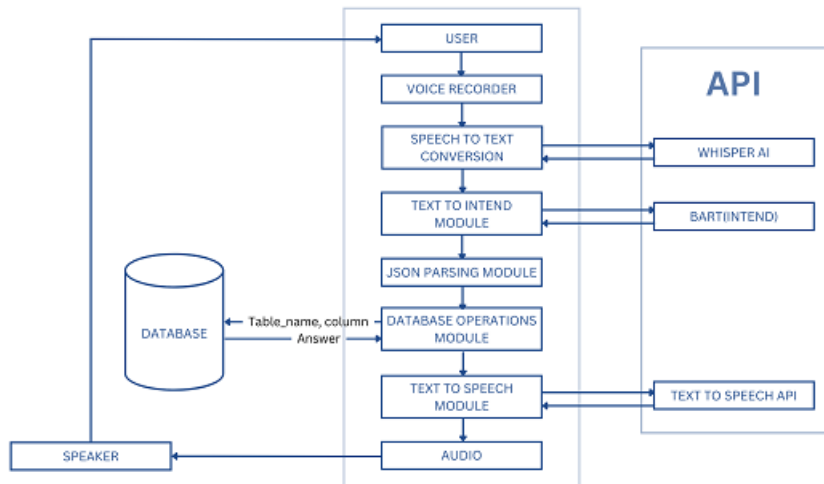
Virtual Assistant of Bolton College			
Description	Merits	Demerits	Method used
Bolton College used IBM Watson to build a virtual assistant that enhances teaching, learning, and information access.	deliver personalized, differentiated, and contextualized responses to each student.	Website-based digital assistant used on the college website.	IBM's Cognitive Platform and Watson Conversation Service.

# Dataflow





# Architecture



# Requirements

## ■ Hardware Requirements

1. Touch screen android device with internet connectivity
2. 100 MB free memory

## ■ Software Requirements

1. Windows 10 or higher
2. Visual Studio Code
3. Flutter sdk
4. SQLite
5. Dart language

**EVA**

Voice Integrated Virtual  
Assistant



# Action Plan

Phase	Modules	Date
1	Selection of topic	04/03/2023
2	Abstract	05/03/2023
3	Overall UI design model	03/04/2023
4	Selection of language processing tools	11/04/2023
5	Building the app in flutter, integrating APIs	20/05/2023
6	Testing and Maintenance	20/06/2023

Table: Action Plan