**Project Proposal**

**Topic: InterRes.**


**Presented By**

| | |
|---|---|
| **Mr Boonyapat Sukosit** | **6288143** |
| **Mr Jiramed Jamjongdamrongkit** | **6288163** |
| **Miss Chitchaya Duangtanawat** | **6288167** |


**Presented**

**Aj. Snit Sanghlao**

**A Report Submitted in partial fulfillment of**

**the Requirements**

**For**

**ITCS424_Wireless and Mobile Computing Technology**


**Faculty of Information and Communication Technology**

**Mahidol University**


**2020**

# Table of Contents

# CHAPTER 1

# 1 INTRODUCTION

## 1.1 Motivation

**InterRes**. is a chatbot application that covers the restaurant's information in Bangkok by using voice command to communicate. We develop AI for users to be able to use speech to ask AI to find the nearest restaurant in everyday life of users or find the foods that interest them in Bangkok. InterRes. Consist of two words which is Interest combined with Restaurant!!!!!

## 1.2 Problem Statement

Today technologies have taken place everywhere in our life so it will be better if we can use AI to find the near interesting restaurant by using communication or command with sound it will make our life better.

## 1.3 Objectives of the Project

- To create AI chatbot that can respond back to human sound
- Enable uses to use voice commands instead of text
- Push the use of AI to support humans in everyday life.

## 1.4 Scope of the Project

- Using English language (voice chat)
- Import AI library for use of AI session
- Mobile application
- The data cover the restaurant information in Bangkok

## 1.5 Expected Benefits

- The AI response back fast
- To provide the current information to the user

## 1.6 **Organization of the Document**

This document consists of 2 chapters including:

1. Introduction
2. Background
3.

# CHAPTER 2

# 2 BACKGROUND

## 2.1 Literature Review

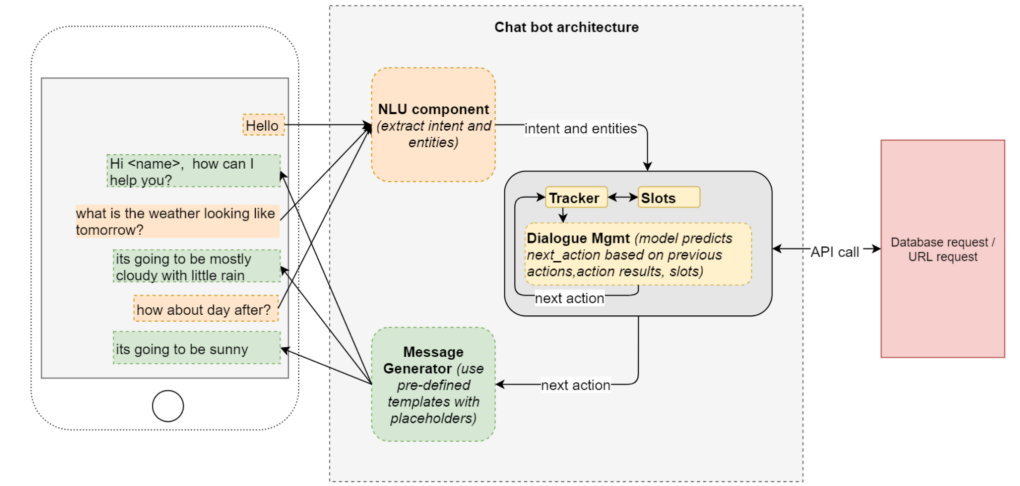
**InterRes.** is an AI application that can communicate by using voice commands to find the nearest restaurant in the everyday life of users or find the foods that interest them in Bangkok. InterRes. will be your assistant for finding and recommending the restaurant. The purpose of this application was to create an AI chatbot that can respond back to human sound and push the use of AI to support humans in everyday life. The application is a mobile application that allows the user to use the English language to control the AI. Moreover, the expected benefit of this application is to create a chatbot application that gives a fast response and conveys the information to the users correctly.

# CHAPTER 3

# 3 Analysis and Design

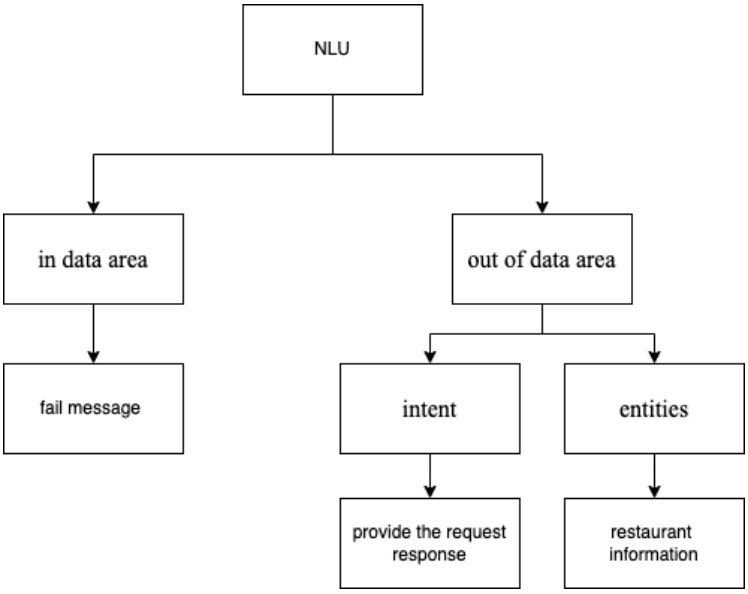
## 3.1 System Architecture Overview

The main function of the application is the NLU component. **NLU** (Natural Language Understanding) **component**, using for extract *intent* such as "request the restaurant in the ari station" and *entities* is the answers of the question that are significant as location, number and essential people. Then the program will request the user's request to the database by using API then providing the response to the users.



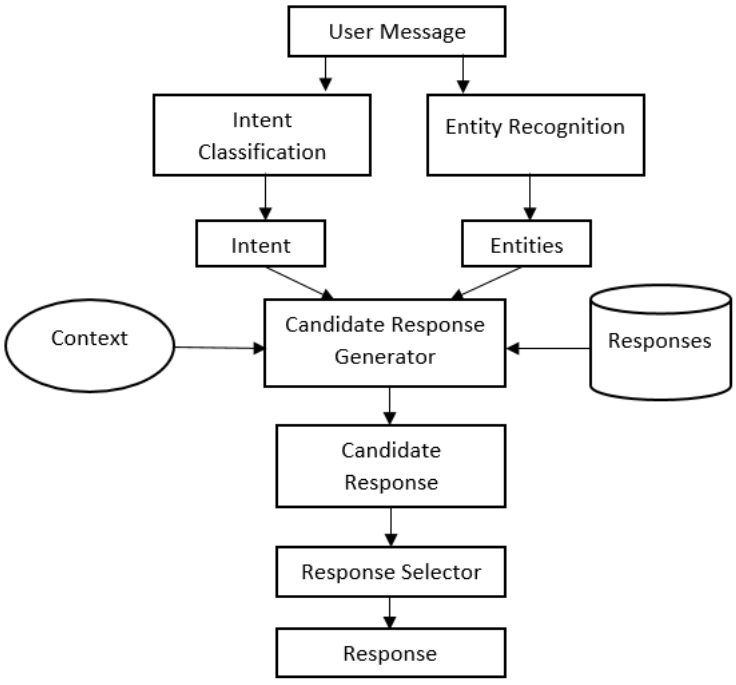

[1]

## 3.2 System Structure Chart




## 3.3 Process Analysis and Design

### 3.3.1 Data Flow Diagram




[2]

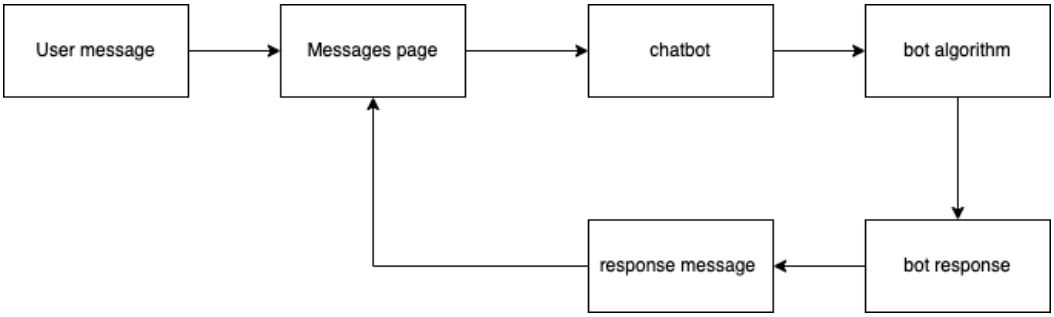
## 3.4 I/O Design

This section explains the design of the Input and Output User Interface. The section consists of two parts, the interface design and the transition diagram showing transition through the system.

### 3.4.1 Interface Design

TBA

### 3.4.2 Transition Diagram



# CHAPTER 4

# 4 IMPLEMENTATION

## 4.1 Hardware and System Environment

- Operating System and Utilities Applications
    - Dialog Flow : Natural language understanding platform by Google used to design and create conversational UI for mobile and web apps.
    -
- Web Server Software
    - Google Cloud Platform (GCP) : Use to connect api from Dialog flow with the flutter application
- Editor
    -
- Database Management System (DBMS)
    -
- Programming and Scripting Tools
    -
    -
- Components
    -

## 4.2 Implementation Guide and Techniques

### 4.2.1 <Guide/Technique/Know-how>

Using Dialog Flow to create a conversation between user and bot.

```
void sendMessage(String text) async {
 if (text.isEmpty) return;
 setState(() {
   addMessage(
     Message(text: DialogText(text: [text])),
     true,
   );
 });

DetectIntentResponse response = await dialogFlowtter.detectIntent(
   queryInput: QueryInput(text: TextInput(text: text)),
 );
 if (response.message == null) return;
 setState(() {
   addMessage(response.message!);
 });
}
```

### 4.2.2 < Guide/Technique/Know-how>

```

```

## Reference

[1] https://towardsdatascience.com/architecture-overview-of-a-conversational-ai-chat-bot-4ef3dfefd52e

[2] https://www.elprocus.com/chatbot-design-process-and-its-architecture/