

Smart Assistant for Data Collection In Epidemiology

Introduction

Health research is interested in understanding factors that influence people's food intake and how different diets affect health. Collecting reliable and accurate dietary information is a difficult process in this area and can result in inconsistent and poorly evidenced data for epidemiological research.

"By definition, epidemiology is the study (scientific, systematic, and data-driven) of the distribution (frequency, pattern) and determinants (causes, risk factors) of health-related states and events (not just diseases) in specified populations (neighborhood, school, city, state, country, global)."

Motivation

Example: *"The second generation of the Avon Longitudinal Study of Parent and Children"*

This is a generational study, analysing behaviour, including nutrition of a large group of participants over three generations.

- Logging data of over 14,000 participants
- Data has to be reliable/consistent and centralised
- Traditional methods involve pen/paper
 - Prone to mistakes
 - Tedious
 - Can be lost

Challenge

Investigate whether a smart assistant can provide an alternative way of logging nutritional data for Epidemiology.

Added value:

- Create a fast and easy way of logging nutrition using a voice assistant.
- Easily distributable
- Data can be stored immediately in one, centralised database

Testing

Ngrok creates a public URL for local server including HTTPS.

- Make changes to Java
- Rebuild .war
- Add .war to Tomcat directory
- Restart Tomcat server
- Start ngrok on localhost port 8080
- Set public URL as endpoint for skill

