Problem Solving Report

DERNELL

THE ATTENDANCE BOT

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Objective:

To record attendance for the attendees.

Problem definition:

The most common problem during any events/workshops is providing participation certificates for the attendants. Usually, many people register to the events/workshops but very little of them attend the event/workshop. When there are hundreds of participants it is practically impossible to take the attendance manually and give them participation certificates. So, there is desperate need of technology in this situation.

Even during the classes in the educational institutes, it is tough to take attendance manually due to strength or time constraints. This situation rises a question across the globe, and there is a need of an effective and long-lasting solution.

Solution:

"It has become appallingly obvious that our technology has exceeded our humanity". Rather than manual attendance designing a software reduces the time consumed. The objective of this software is unlike the manual process, an online system easily helps management to analyse student's attendance details as per requirement. Attendance Management System is software for daily attendance in schools, colleges, or during any events/workshops.

So an effective solution for the above discussed problem would be making a chat bot to which the attendees send their activity status.

A phone number will be given to the attendees or class alongside a verification code will also be provided to which the attendee could send the activity status (present status) to the phone number through WhatsApp and hence forth the faculty / organiser can see the activity status in a website to which the bot is integrated. The only difficulty for the educational institutions is that only single code is provided to the students which would be told to them in the class to which they should send but the student may misuse the code over and over by sending his activity status despite of attending the classes. An effective and simple solution is changing the code everyday. A question would be asked by the bot about the topic taught in the class to be responded by the student on failing which the attendance wouldn't be considered and this has to be done within a time frame of 1 minute.

Steps to be followed:

Step 1: Save the given contact number to your contacts**.**

Step 2: Open the WhatsApp chat of the saved contact.

Step 3: Send the code told by the faculty / organiser to the chat bot.

Step 4: Send your activity status and ask the question followed by bot's reply answer the question.

Step 5(Optional): Finally send a bye to the chat bot and close the chat.

 The faculty can also download the responses in the form of a CSV file for further references (if necessary).
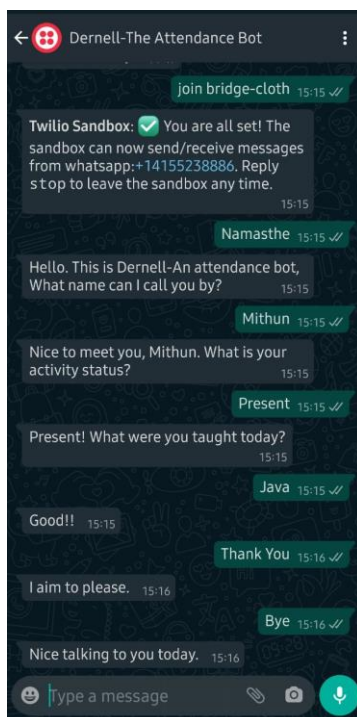
Note: The intention of this approach is that it can be developed without a single line of code and a person with minimum computer knowledge can also do this. We don't say that this is the 'only' solution rather this is one of the easiest end effective approach.

Flowchart:

```
                    ┌───────────┐
                    │   Start   │
                    └───────────┘
                          │
                          ▼
            ┌───────────────────────────┐
            │  Save +1(415)523-8886 to  │
            │       your contacts       │
            └───────────────────────────┘
                          │
                          ▼
             ╱─────────────────────────╱
            ╱   Send the verification  ╱
           ╱        code to the bot   ╱
          ╱─────────────────────────╱
                          │
                          ▼
             ╱─────────────────────────╱
            ╱    Greet the bot with a  ╱
           ╱         'Namasthe'       ╱
          ╱─────────────────────────╱
                          │
                          ▼
             ╱─────────────────────────╱
            ╱   Send your activity     ╱
           ╱          status         ╱
          ╱─────────────────────────╱
                          │
                          ▼
             ╱─────────────────────────╱
            ╱    Answer the question   ╱
           ╱                          ╱
          ╱─────────────────────────╱
                          │
                          ▼
                    ┌───────────┐
                    │   Stop    │
                    └───────────┘
```