

Lab 5 BITS 3533 Wireless Network and Mobile Computing Sem 1 2021/2022 (Group)

Learning Outcome

At the end of this lab session, students are able to

- Integrate Telegram with Raspberry Pi ~~using GPIO~~

Telegram Bot

The Telegram messenger stands out, compared to competing services such as WhatsApp and Co, especially because of its special function of bots and channels. Freely available application programming interfaces (APIs) make life easier if you want to collect data or automate things. Thus, a Telegram bot is a good way to deliver information from almost every conceivable area whenever you need it. In the following article, we would like to discuss exactly this special mode of operation and show how it can be used in practice.

Equipments

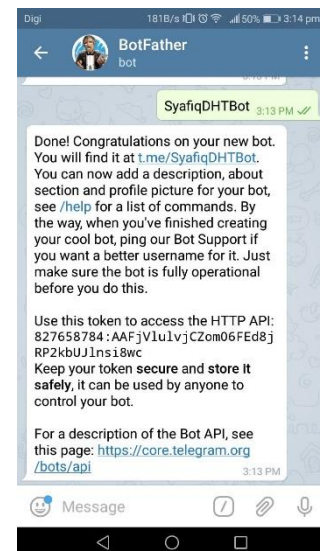
- Raspberry Pi
- Telegram

Task

Work in team. Perform the following hands on:

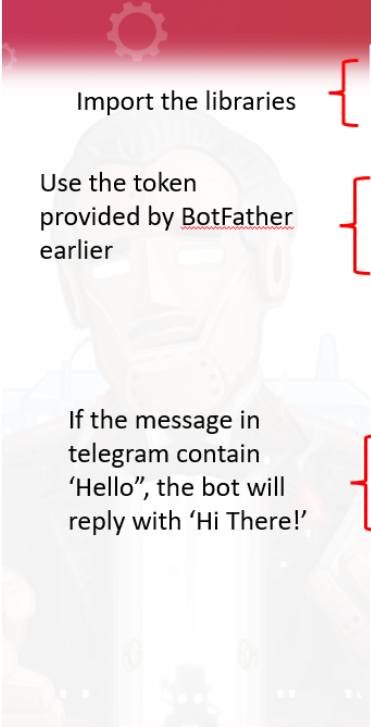
1. **Task 1:** Integrate Telegram with Raspberry Pi (Chat Bot) Setting up the Telegram BotFather

- Open Telegram App
- Search for “BotFather”
- Enter command */newbot*
- Enter bot name *DHT11 Bot*
- Enter username *SyafiqDGTBot*
- Copy token to be used in Raspberry Pi during integration



Setting up the Raspberry Pi

- Install python package *sudo apt-get install python-pip*
- Install telepot *sudo pip install telepot*
- Integrate the Telegram with Raspberry Pi using python by developing Chat Bot
- Test the functionality based on the developed Chat Bot. For example, after inserting command “Hello” the chatbot will reply “Hi There!”.



```
import telepot
from telepot.loop import MessageLoop

telegram_bot =
telepot.Bot('882991953:AAErJabiHudAAD8RTYNE24Ci
palwJGPuidY')

def action(msg):
    chat_id = msg['chat']['id']
    command = msg['text']

    if 'Hello' in command:
        message = "Hi There!"


    telegram_bot.sendMessage(chat_id, message)

MessageLoop(telegram_bot, action).run_as_thread()
```

Import the libraries

Use the token provided by BotFather earlier

If the message in telegram contain 'Hello", the bot will reply with 'Hi There!'

2. **Task 2:** Find commands in Telegram and summary the commands and their purposes in a Table
3. **Task 3:** Discuss security issues in using the Telegram Bot 

Submission

Write a five pages report based on Task 1-3 and submit the report by Thursday 11:59pm, 10/11/2022