

# Final Project

**Goal : Build a chat bot for a specific usage.**

## 1. Basic Requirements (60%)

- a. Design and draw a Finite State Machine that meets the following criteria
  - i. more than three transactions departing from the initial state
  - ii. more than three states in sequential order
- b. Write a program to display your FSM
  - i. You can use [transitions](#) to accomplish this job.
- c. Implement a chat bot on Telegram according to your FSM
  - i. An article ([Telegram Bot Tutorial](#)) about how to build a Telegram Bot is provided.
  - ii. You can use [this example program](#).

You can either fork it or simply download it.

If you fork it, your code should not be pushed, which action is only allowed within the submission time.

You're free to write your own code or even use other web frameworks (e.g. Django, Pyramid and etc.)

But, you're required to use Python to finish this project.

## d. Other project detail

- i. Write a comprehensive document
  1. Name it README.md and put it in project root.
  2. Write using [markdown](#) syntax.
  3. The following content is a MUST in this document.
  4. Detail about how to interact with your chatbot
  5. Detail about how to run you code
  6. Note that if your document is not clear enough for TAs to understand and you don't attend demo to explain your code, any part that we cannot understand WILL NOT be graded.

## e. Submission

- i. You'll have to submit your code to [GitHub](#) during **15:00-24:00 on 6/1**.  
(Submitting to moodle is not allowed.)
- ii. You'll have to submit your URL to the google sheet on Moodle.

- iii. For those who are not familiar with git, find a tutorial [Basic Git Tutorial](#) here.
- iv. You can ONLY submit your code within the submission time. (Both early or late submissions are not allowed.)
- v. You can update your code after submission. However, we'll rollback to the last git commit before the deadline for the evaluation.
- vi. If any database is used in this project, we highly encourage you to demonstrate your code.

Since in most cases, adding a database to git commit is not a good idea.

You can use your local database when demonstrating your project.

However, note that your database should fit your code in the last git commit.

## 2. Bonus (0-40%)

### a. Your FSM meets the following criteria.

- i. Practical
- ii. Any creative design that amazes TAs

### b. Functions

- i. More telegram functionalities (e.g. Sending images, video)
- ii. Dynamic data (e.g. parsing website, database)
- iii. Natural Language Processing (e.g. nltk, word2vec and etc.)
- iv. Detect dialog use Machine Learning techniques
- v. Any creative design that amazes TAs

### c. Demo

- i. Explain your program.
- ii. There might be an on-site modification.
- iii. We'll announce demo time around the submission deadline. If you're not available in all the demo time, you can arrange another time with TAs.

# Deadline : 6/1(Thur.) 15:00-24:00