User manual + Execution plan for it:

* In the index page, click the New button to add a task. It uses AJAX so that the form will appear in the index page.

+ The time must be in the format (year/month/day hour/minute/second , time zone is automatically +8, Singapore). The string will then be parsed into Time Object.

+ The task description must have at least 5 characters.

+ Can include several tags, each tag must be separated by a comma ( e.g tags : education, health). These tags will then be handled. I learn how to handle a string and split it into smaller strings.

* The tasks which are uncompleted will appear before those completed. Among them, they will be sorted chronologically ( time order). From this, I learn to sort an array of object based on multiple criteria , and to parse a string into Time Object.
* Link to tag list, there is a field for us to search for the tag we need. This is done using the Ransack Gem. Tags will then be sorted by alphabetical order.
* Every one hour, it is automatically checked if there is any task needed to be done in the next one hour. If yes, we will send an email from [letrunghieusingapore@gmail.com](mailto:letrunghieusingapore@gmail.com) to [lth08091998@gmail.com](mailto:lth08091998@gmail.com) to remind me. By doing this, I learn how to use similar Cron task in Rails using the “Whenever” Gem and also learn how to send email in Rails. One more thing I learn from this is security. I use Figaro Gem to hide my email password in the environment variable, so that the program still works when I publish it to Git without revealing my email password.
* I include the Twitter Bootstrap Gem and use it to improve the user interface.
* At first , I struggle with how to alert the user when they make something wrong (e.g leave the text blank). Then, I learn about how to use Flash ( although it is still not good because Flash popularity has decreased recently).

CONCLUSION: This is my first time using Ruby on Rails, and also the first time using a framework for web development. Even though I struggle a lot in the early days, I keep learning from mistakes and improving my skills. These practical knowledge was not taught much in the first semester in NUS, and it keeps enthralling me everyday.