

# ChatBot and Recommendation systems Project

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For this project, we decided to build a ChatBot capable of exchanging text messages with a human. The goal of this bot is to give book recommendations to an individual.

A human can therefore inform our bot of all the books he has read. Once this information is transmitted, our algorithm records a list of these books.

## How it works ?

You can talk normally with the bot to say hello, you can also get information about the books and finally get recommendations.

So, to be able to give recommendations, we have loaded a large database that contains the books already read by people and the rating given by them.

When you give our ChatBot the list of books you have already read, it will search its database for people who have read similar books. Thanks to this and to the ratings given to the books, our algorithm can recommend books that the user might like.

To recommend books we pickle a matrix that we created before with our model that give similarities between books. Then, we multiply the list of books which is a vector with the matrix and it returns the book that you should like.

Here is the shape of our dataset.

	Book-Title	Book-Author	Year-Of-Publication	Image-URL-M	User-ID	Book-Rating
0	Classical Mythology	Mark P. O. Morford	2002	http://images.amazon.com/images/P/0195153448.0...	2	0
1	Clara Callan	Richard Bruce Wright	2001	http://images.amazon.com/images/P/0002005018.0...	8	5
2	Clara Callan	Richard Bruce Wright	2001	http://images.amazon.com/images/P/0002005018.0...	11400	0
3	Clara Callan	Richard Bruce Wright	2001	http://images.amazon.com/images/P/0002005018.0...	11676	8
4	Clara Callan	Richard Bruce Wright	2001	http://images.amazon.com/images/P/0002005018.0...	41385	0

You can see on the picture below the help text that our chabot can say in order to help the user. There are also basic answers.

```
help_text = '\n\
!info <book> -> Give some informations on the books you typed\n\
!add <book> -> Add the books you typed to your favorite list\n\
!fav -> Display your favorite books list\n\
!clear -> Clear your favorite books list\n\
!recommendation -> Recommend you 10 books that you might like depending your favorite list\n\
!del <n>-> Delete n last messages \n\
!test -> Simple test that return your name '

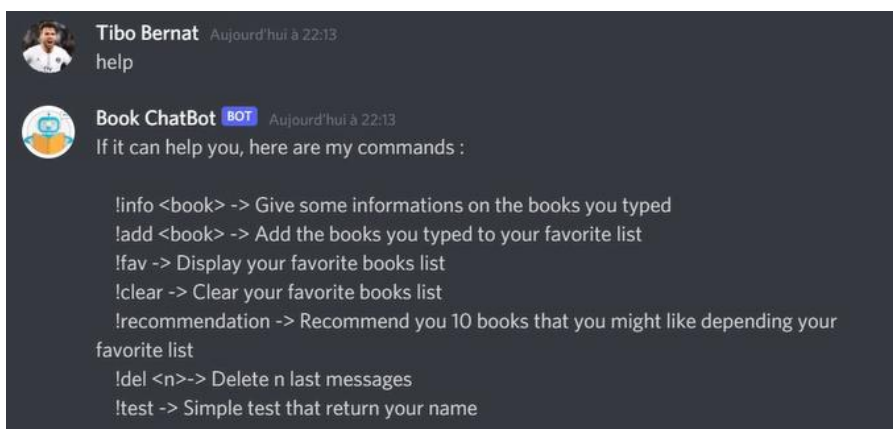
responses={
    'greet':'Hello! How can I help you?',
    'help':'If it can help you, here are my commands :\n'+help_text,
    'info':'The only information i have is the list of my commands :\n'+help_text,
    'thank':'You are welcome',
    'thanks':'You are welcome',
    'fallback':'I dont quite understand. Could you repeat that, or type "help".',
}
```

## How to use it :

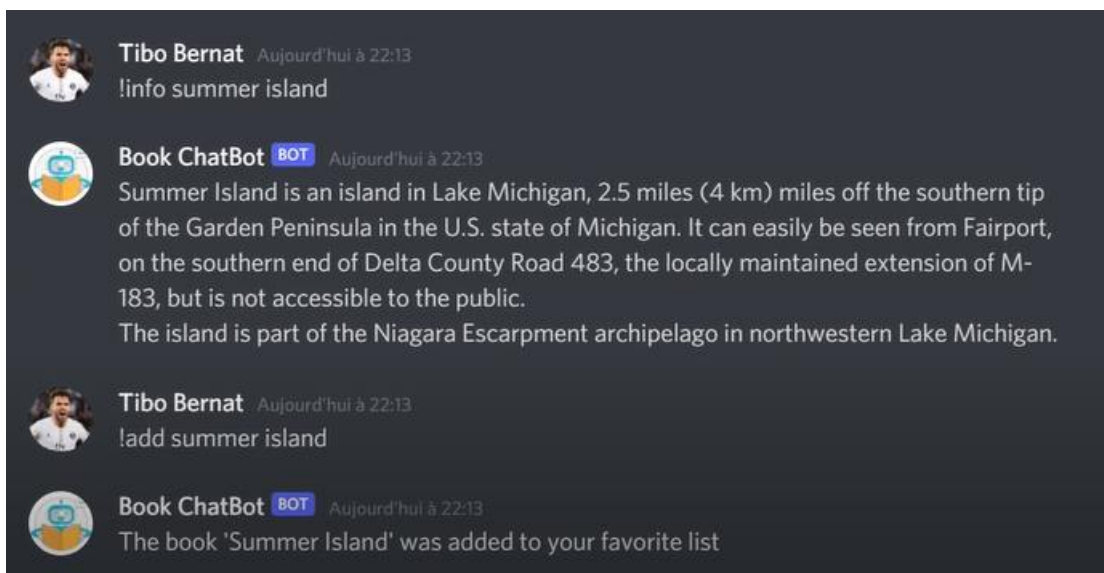
You have to join a discord server in order to talk to our ChatBot.

Here is the link to join the discord server : <https://discord.gg/Y7GazAQE>

### 1) Basic informations (Hello, help )



### 2) Informations on a book



### 3) Recommendation book for the user



**Tibo Bernat** Aujourd'hui à 22:14  
!fav

**Book ChatBot** **BOT** Aujourd'hui à 22:14  
This is your favorite list of books :  
Icy Sparks, Summer Island, Four Blondes, Abduction, Waking the Dead,

**Tibo Bernat** Aujourd'hui à 22:14  
!recommendation

**Book ChatBot** **BOT** Aujourd'hui à 22:14  
Thanks to your favorite list, I offer you books that you might like:

1. The Lovely Bones: A Novel
2. The Perfect Storm : A True Story of Men Against the Sea
3. Hannibal
4. Along Came a Spider (Alex Cross Novels)
5. A Painted House
6. She's Come Undone (Oprah's Book Club)
7. Back Roads
8. Congo
9. A Thousand Acres (Ballantine Reader's Circle)
10. Daisy Fay and the Miracle Man