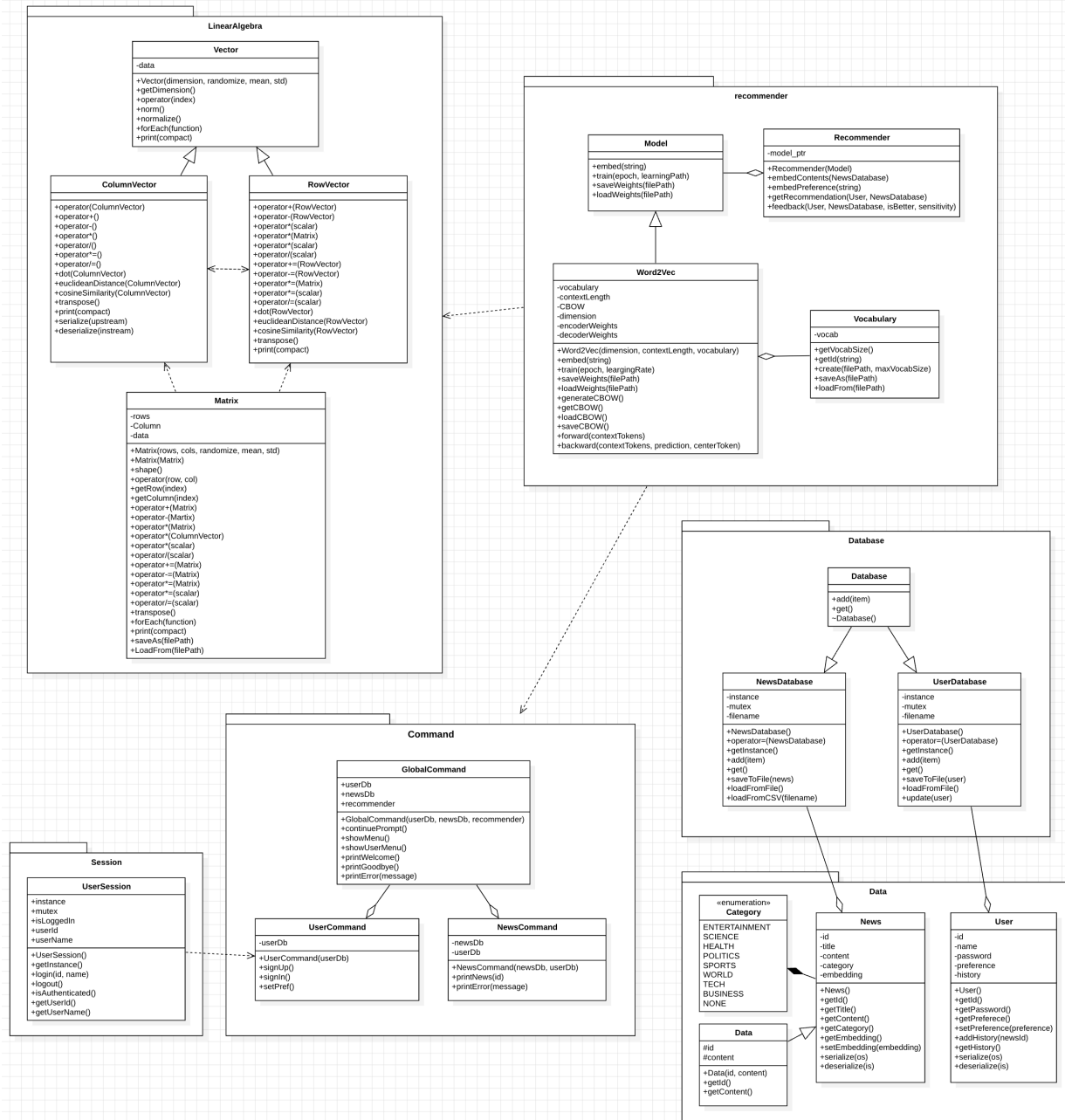


Project Title	News Recommendation
Project description (4-5 lines)	This program recommends and displays news and adjusts recommendation based on user's feedback. User can select its initial category of interest and view the suggested news. Then, user gives positive/negative feedback, and the system adjusts to recommend more interesting news. Just like TikTok, the system's recommendation better reflects the user's preference automatically.
Team members	Ikjun Choi (20235203) Jumyung Park (20235073)




User Account Part

- Welcome message

```
> "/Users/choiikjun/Desktop/Coding/OOP/Final Project/build/bin/main/main"
Start loading news from ./data/news_dataset/news_article_categorization.csv

@Vocabulary
  Loading vocabulary from "./data/bin/vocabulary.bin"...
  Vocabulary loaded successfully

@Word2Vec
  Loading model weights from ./data/bin/weights...
    Loading encoder matrix weights from ./data/bin/weights_encoder.bin ...
    Loading decoder matrix weights from ./data/bin/weights_decoder.bin ...
  Model weights loaded
Embedding news contents...
Done.
```



```
Welcome to the News Recommendation System!
Discover news tailored just for you.

===== Welcome to the News Recommendation System =====
1. Sign Up - Register as a new user
2. Sign In - Access your account
3. Exit - Close the application
Enter your choice (1-3): █
```

- Sign Up (When select No.1)

```
Sign Up (Input Your Personal Information)
ID: test
Name: test
Password: test█
```

- Sign In (When select No.2)

```
Sign In
ID: test
Password: test
Login successful. Welcome, test!

===== Welcome, test =====
1. Set Preference - Update your news preference
2. Get Recommendation - Get news recommendation based on your preference
3. Sign Out - Log out from your account
Enter your choice (1-3): █
```

When the invalid value received, the program shows the error message and ask to retry for that function.

```
===== Welcome to the News Recommendation System =====
1. Sign Up - Register as a new user
2. Sign In - Access your account
3. Exit - Close the application
Enter your choice (1-3): 4
Invalid input. Please enter a number between 1 and 3: █
```

```
Sign In
ID: good
Password: good
Login failed: No user with id good found.
Would you like to try logging in again? (y/n): y
```

Main Function Part

- Setting Preferences (When choice No. 1)

```
Current preferences:
Enter your interests separated by spaces (e.g., technology science business): Judge Pratt █
```

```
Enter your interests separated by spaces (e.g., technology science business): Judge Pratt
User with id test updated successfully.
Preferences updated successfully.
```

```
===== Welcome, test =====
1. Set Preference - Update your news preference
2. Get Recommendation - Get news recommendation based on your preference
3. Sign Out - Log out from your account
Enter your choice (1-3): █
```

- Get Recommendation (When choice No. 2)

When user choices No.2 to get News Recommendation, the program immediately shows one news that mostly related in user's preference data.

```
Generated Title
Jared Fogle Shut Down By Judge In Bid for Early Release 1/22/2018 Jared Fogle got
no love from the judge who sentenced him to 15 years in prison ... ruling his
legal arguments were BS. Fogle had filed legal docs he prepared himself in the
prison library, claiming Judge Tanya Pratt had no jurisdiction to even hear the
criminal case because the sex crime charges required proof he traveled from one
state to another to engage in sex acts with minors ... and he says everything was
done in 1 state. Judge Pratt begged to differ, repeatedly calling Fogle's
argument

Next(n) | Quit(q):
```

And the program also asks if it will continue its news recommendations.

```
Generated Title
Jared Fogle Shut Down By Judge In Bid for Early Release 1/22/2018 Jared Fogle got
no love from the judge who sentenced him to 15 years in prison ... ruling his
legal arguments were BS. Fogle had filed legal docs he prepared himself in the
prison library, claiming Judge Tanya Pratt had no jurisdiction to even hear the
criminal case because the sex crime charges required proof he traveled from one
state to another to engage in sex acts with minors ... and he says everything was
done in 1 state. Judge Pratt begged to differ, repeatedly calling Fogle's
argument

Next(n) | Quit(q): n
show next
Did you enjoy this news than the last one? (Y | N | Quit):
```

If the user decides to check the following news, the program asks if you liked the news you just saw.

```
Generated Title
Jared Fogle Shut Down By Judge In Bid for Early Release 1/22/2018 Jared Fogle got
no love from the judge who sentenced him to 15 years in prison ... ruling his
legal arguments were BS. Fogle had filed legal docs he prepared himself in the
prison library, claiming Judge Tanya Pratt had no jurisdiction to even hear the
criminal case because the sex crime charges required proof he traveled from one
state to another to engage in sex acts with minors ... and he says everything was
done in 1 state. Judge Pratt begged to differ, repeatedly calling Fogle's
argument

Next(n) | Quit(q): n
show next
Did you enjoy this news than the last one? (Y | N | Quit): y
```

Based on the results of the user feedback, the interest information is corrected, which is immediately reflected, and the following news is newly recommended.

```
Generated Title
Lil Pump Attention Record Companies ... $15 Mil or Take a Hike 1/27/2018 TMZ.com
Lil Pump is super hot these days and he knows it ... because he ain't signing no
recording contract for anything less than $15 mil. We got Pump leaving Avianne
and Co. Jewelers Friday night in the Big Apple, where he says he dropped a
quarter mil on bling. The 17-year-old rapper reportedly got out of his deal with
Warner Bros. Records because it was never certified by a court ... something
that's required when minors are involved. Pump's been getting offers, which makes
sense. He's got several hit songs, including

Next(n) | Quit(q):
```

End of Program

```
===== Welcome, test =====  
1. Set Preference - Update your news preference  
2. Get Recommendation - Get news recommendation based on your preference  
3. Sign Out - Log out from your account  
Enter your choice (1-3): 3
```

When user selects No. 3 to quit this program, all of the information in User Session will be deleted (not the user information in database) and the program prints the goodbye message.

```
You have been successfully logged out.
```

```
Thank you for using News Today. Goodbye!
```

```
Goodbye
```

Source code : <https://github.com/no-ikjun/recommendation-cpp>