

Manual Test Plan

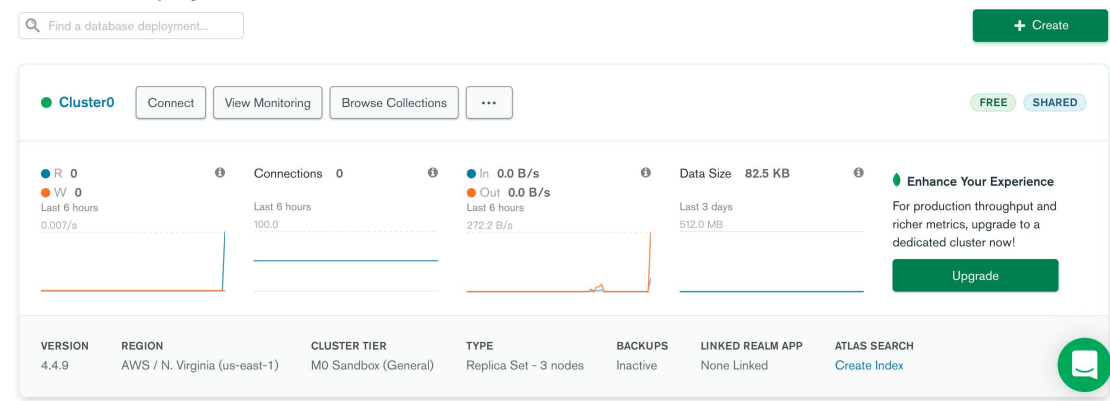
Test Version

Branch: project-1.0

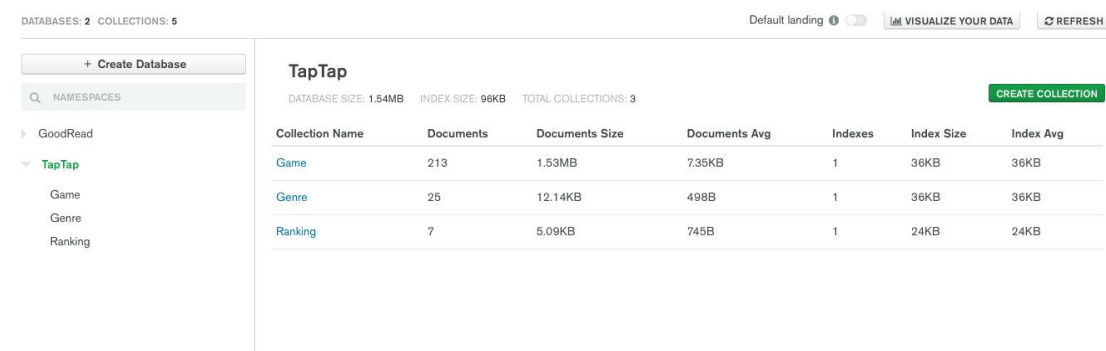
Environment Setup & Configuration

- OS support: Mac OS X
- Python 3.6 or above is required
- Use pip install to ensure following packages are installed:
dotenv,pymongo,certifi,pylint,unittest,bs4,selenium,
webdriver-manager,request
- IDE: Pycharm
- Sign up a mongodb account and create a cluster for cloud database:

Database Deployments



Click name of cluster and create a database in collections tab like below:



- Make sure the database name is Tap Tap and it should have three collections:
 - Game collection store documentations with detail information of a game.
 - Genre collection store game id and name in this genre.
 - Ranking collection store game id and name in the ranking list of a region.

- Create .env file and put connection link including your password and user name inside like below:

```
MONGODB_KEY=mongodb+srv://<user name>:<password>@cluster0.cnswy.mongodb.net/myFirstDatabase?retryWrites=true&w=majority
```

Provided Python Unit test

- Three scraper unit tests are provided. Make sure web driver works properly and then click start button to test functionality of each scraper.
- Once you click the test button, the following web driver should start:

```
[WDM] - ===== WebDriver manager =====
[WDM] - Current google-chrome version is 95.0.4638
[WDM] - Get LATEST driver version for 95.0.4638
[WDM] - Driver [/Users/zangfan/.wdm/drivers/chromedriver/mac64/95.0.4638.54/chromedriver] found in cache
```

- Wait for the driver to open the website and tester will check if the scraped content is correct.

Manual Test Process

- (1) Open a terminal in src folder Input python command_line_interface.py -h, then helper information about running this scraper should appear:

```
(FinalProjectVenv) zangfan@zangfandeMacBook-Air BackEnd % python command_line_interface.py
[WDM] -

[WDM] - ===== WebDriver manager =====
[WDM] - Current google-chrome version is 95.0.4638
[WDM] - Get LATEST driver version for 95.0.4638
[WDM] - Driver [/Users/zangfan/.wdm/drivers/chromedriver/mac64/95.0.4638.54/chromedriver] found in cache
scrape -- Activate scraper and stored info in database.
json -- Export game & ranking & genre data to json
```

As the hint stated, the web driver has started and user should input 'scrape' to start scraper or 'json' to export stored data in database to json file.

- (2) If user type words other than json or scrape, the following hint should appear to tell user what to input

```
[WDM] -

[WDM] - ===== WebDriver manager =====
[WDM] - Current google-chrome version is 95.0.4638
[WDM] - Get LATEST driver version for 95.0.4638
[WDM] - Driver [/Users/zangfan/.wdm/drivers/chromedriver/mac64/95.0.4638.54/chromedriver] found in cache
scrape -- Activate scraper and stored info in database.
json -- Export game & ranking & genre data to json
se
Please provide following input: scrape, json
□
```

- (3) After user input scrape, the scrape mode should start and following

options should appear:

```
★ Favorites  + Structure
Please provide following input: scrape, json
scrape
Please pick a option to start
Game -- Scrape detail info of one game using id.
Ranking -- Scrape ranking list of all regions.
Genre -- Scrape all common genres in Tap Tap.
█
```

(4) If user type words other than Game, Ranking or Genre, the following hint should appear to tell user what to input

```
Please pick a option to start
Game -- Scrape detail info of one game using id.
Ranking -- Scrape ranking list of all regions.
Genre -- Scrape all common genres in Tap Tap.
incorrect input
Please provide following input: Game, Ranking, Genre
█
```

(5) If user input the Game, then game scraper should start and the following hint should appear to let user input a game id:

```
Please pick a option to start
Game -- Scrape detail info of one game using id.
Ranking -- Scrape ranking list of all regions.
Genre -- Scrape all common genres in Tap Tap.
incorrect input
Please provide following input: Game, Ranking, Genre
Game
Please input a game id.
█
```

(6) If user input a incorrect game id, for instance, not a integer number, then the following hint should appear:

```
Please provide following input: Game, Ranking, Genre
Game
Please input a game id.
not a number
Please provide a non negative integer.
```

(7) If user input a valid game id, then the web driver will open the corresponding game website and start scraping:

```
Please input a game id.
209452
```

```
Game with id:209452 is created in database
```

(8) If the user input Ranking, then the web driver will open the ranking page in

Tap Tap and ranking scraper should start:

```
Ranking
Ranking list scraper starts.
Ranking with id:0 is updated in database
Ranking with id:1 is updated in database
Ranking with id:2 is updated in database
Ranking with id:3 is updated in database
Ranking with id:4 is updated in database
Ranking with id:5 is updated in database
Ranking with id:6 is updated in database
Scraper start scraping related games in ranking list.
Game 217589 already exist
Game 223385 already exist
Game 207594 already exist
Game 82354 already exist
Game 212769 already exist
review link scrape failed
review scrape failed
Game with id:204264 is created in database
```

The scraper should scrape detail information of related game in the ranking list as well. Game document will be created if not exist in database.

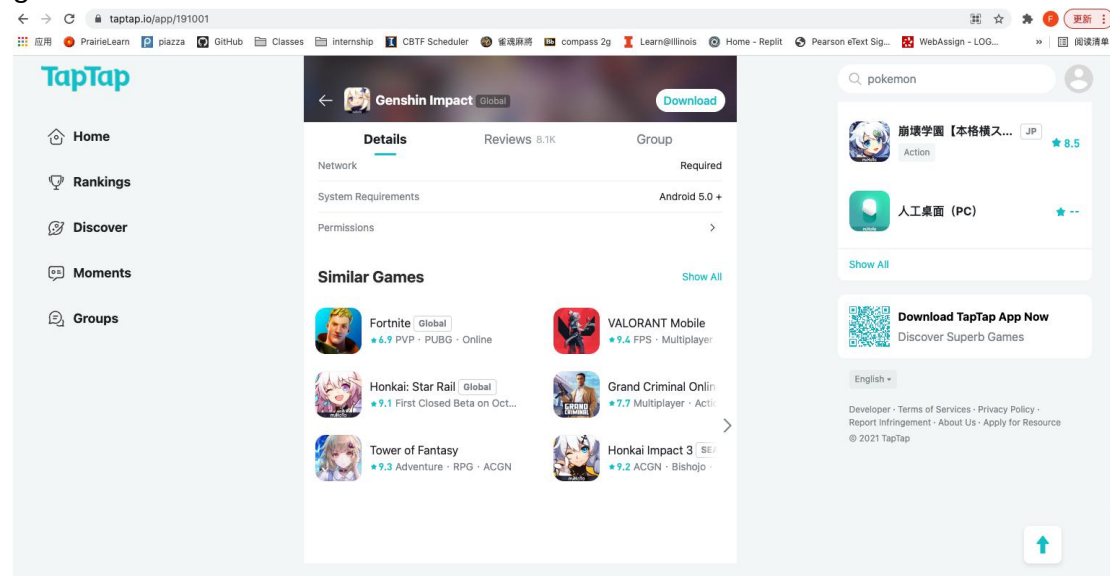
(9) If the user input Genre, then the web driver will open the discover page in Tap Tap with common genres and genre scraper should start:

```
Please pick a option to start
Game -- Scrape detail info of one game using id.
Ranking -- Scrape ranking list of all regions.
Genre -- Scrape all common genres in Tap Tap.
Genre
Genre scraper starts.
Genre with id:0 is updated in database
Genre with id:1 is updated in database
Genre with id:2 is updated in database
Genre with id:3 is updated in database
```

The scraper should scrape detail information of popular game in each genre as well. Game document will be created if not exist in database.

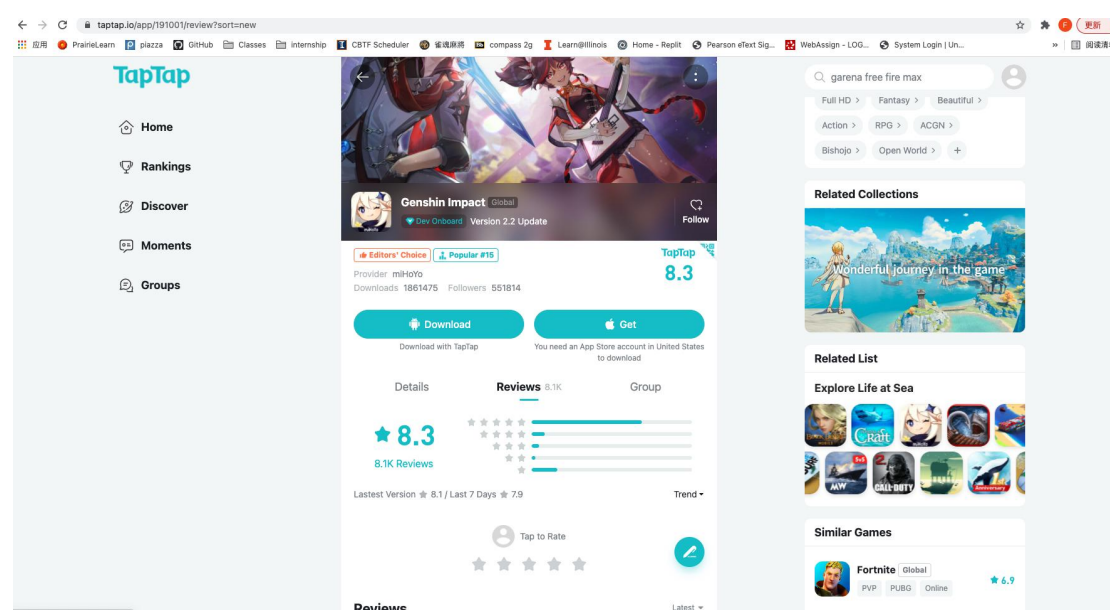
(10) For the game scraper, the web driver should first open the main page of

game and scroll the browser to the bottom like below:



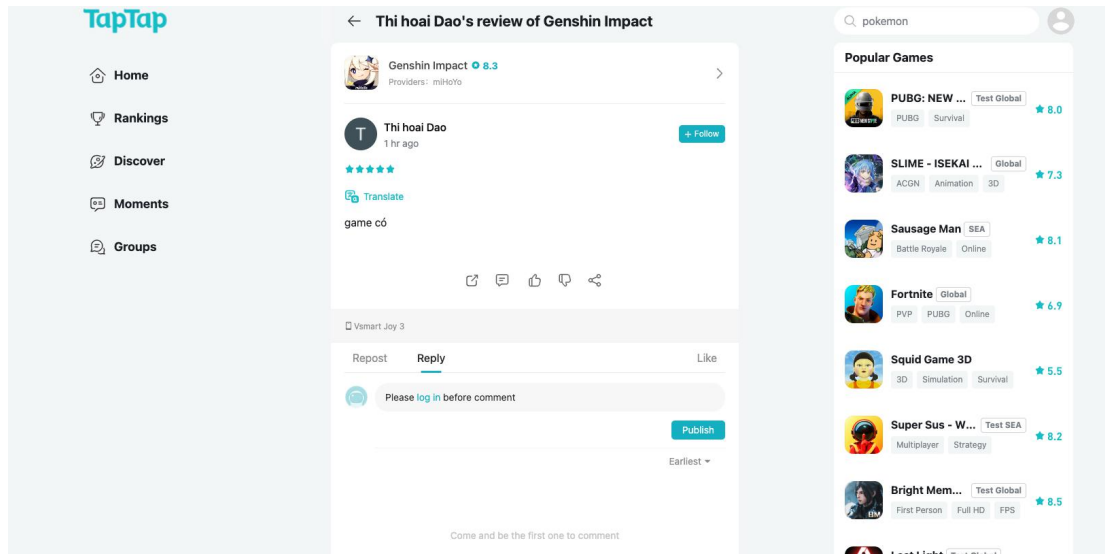
During this page, all information except reviews and posts of this game should be scraped.

(11) Then the scraper should open the review page and sort the review by time like below:

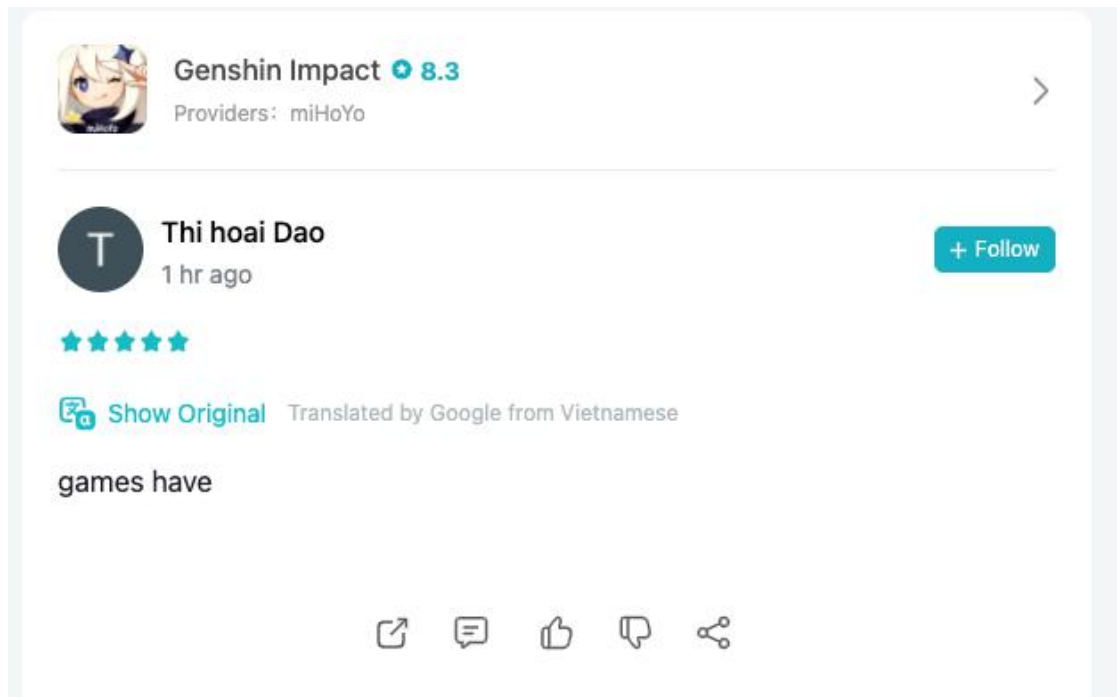


During this page, the scraper will get up to 15 links to reviews of this game. If no review is found in this game, terminal will show review link scrape error.

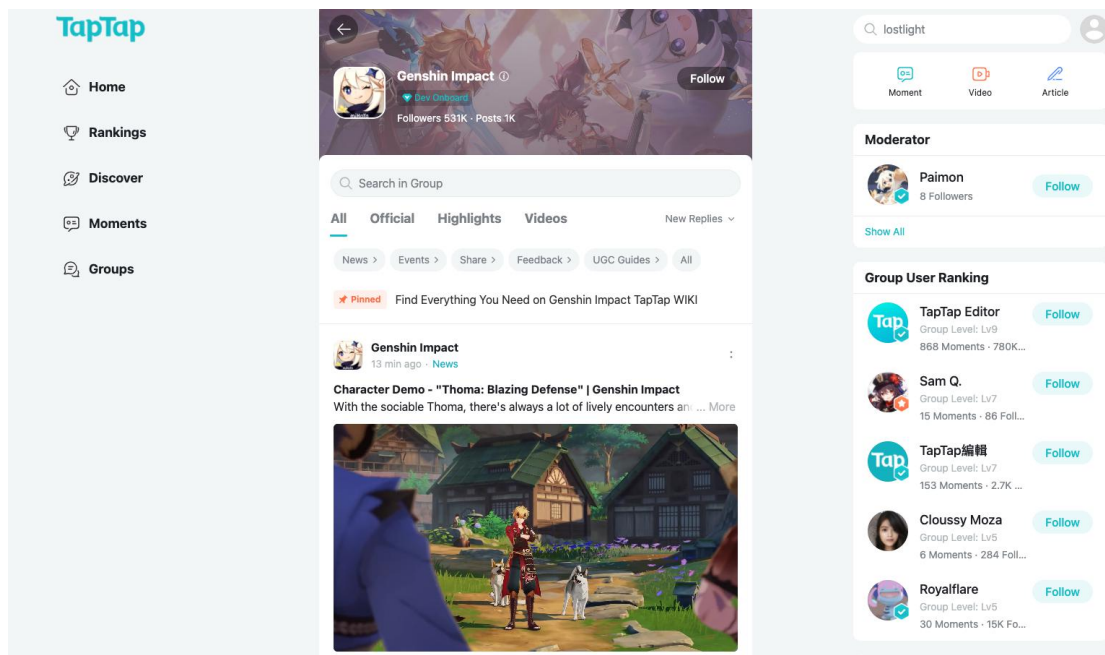
(12) Then the scraper will open each of the review link page and scrape information about this review like example below:



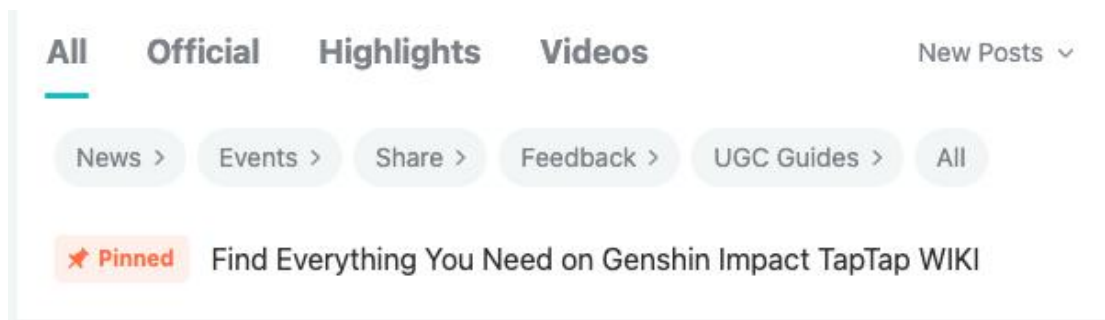
Once all elements of this page is rendered, the driver should automatically clicked the translate button to ensure the scraped review content are all in English:



(13) After all reviews information are scraped, the driver will open the topic page of this game like below, it contains player shared moment or posts:

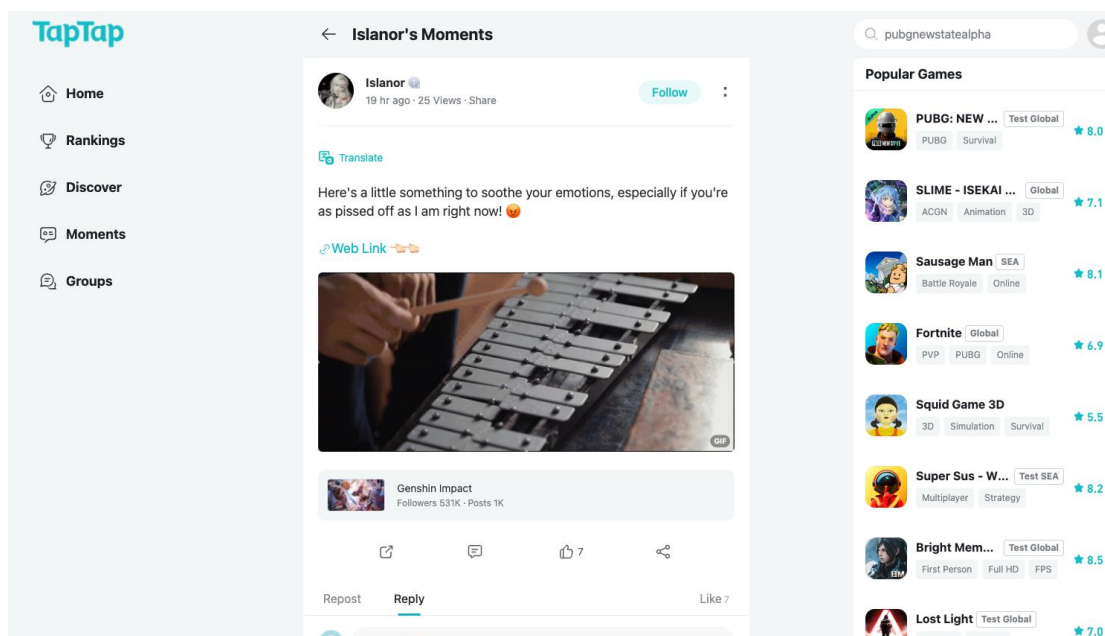


Then the driver should click the button to sorted the posts by time:

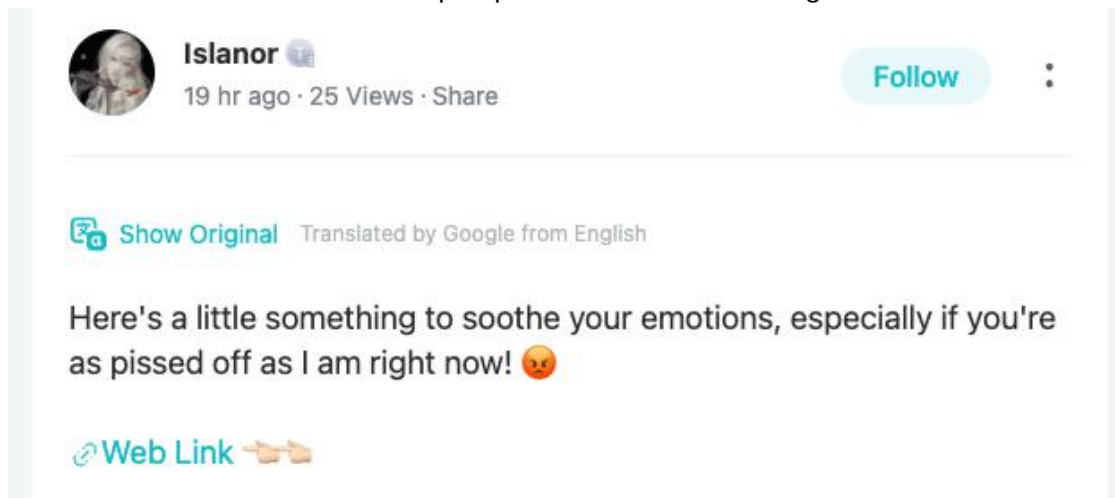


During this page, the scraper will get up to 15 links to player posts of this game. If no post is found in this game, terminal will show post link scrape error.

(14) Then the scraper will open each of the post link page and scrape information about this post like example below:

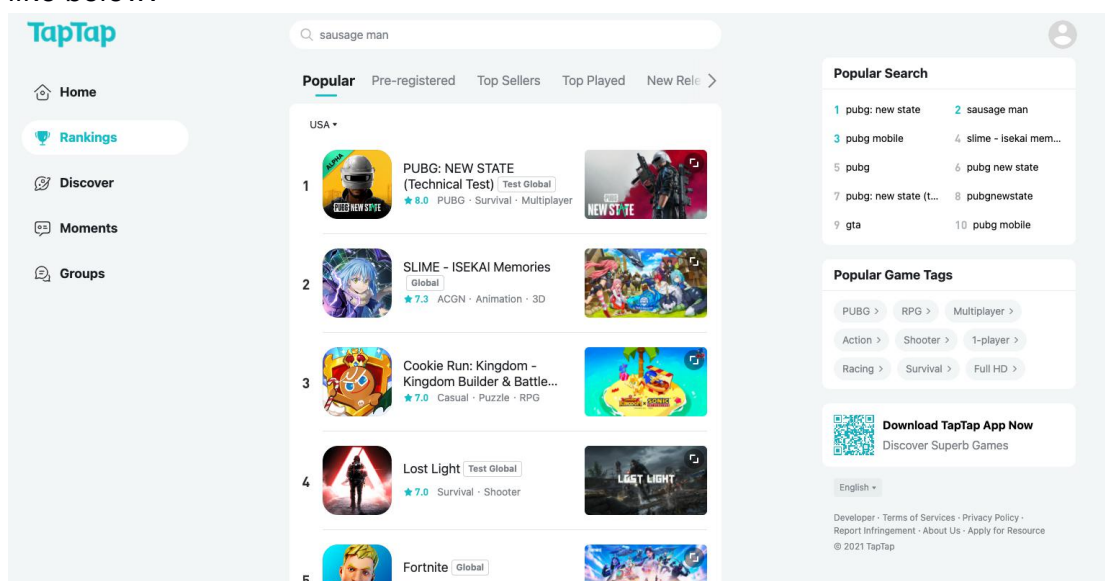


Once all elements of this page is rendered, the driver should automatically clicked the translate button to ensure the scraped post content are all in English:

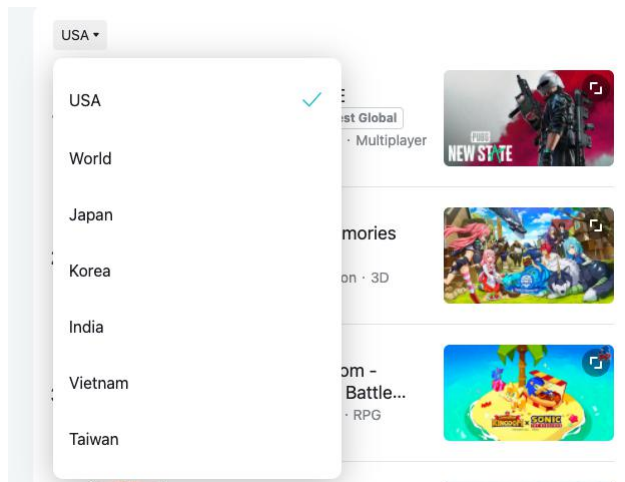


After all posts information is scraped, the game scraper finished and store info tot the database

(15) For Ranking scraper, the driver should first open the ranking list of Tap Tap like below:

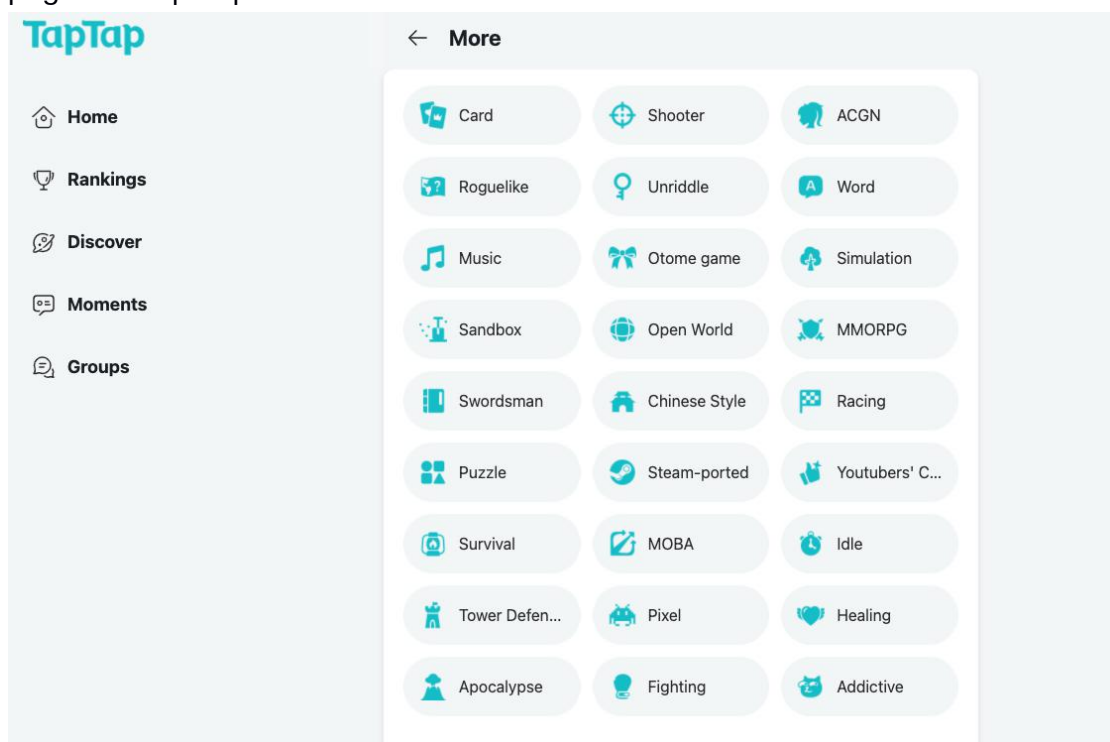


After that, the driver will click the drop down button to show all available regions ranking in Tap Tap:

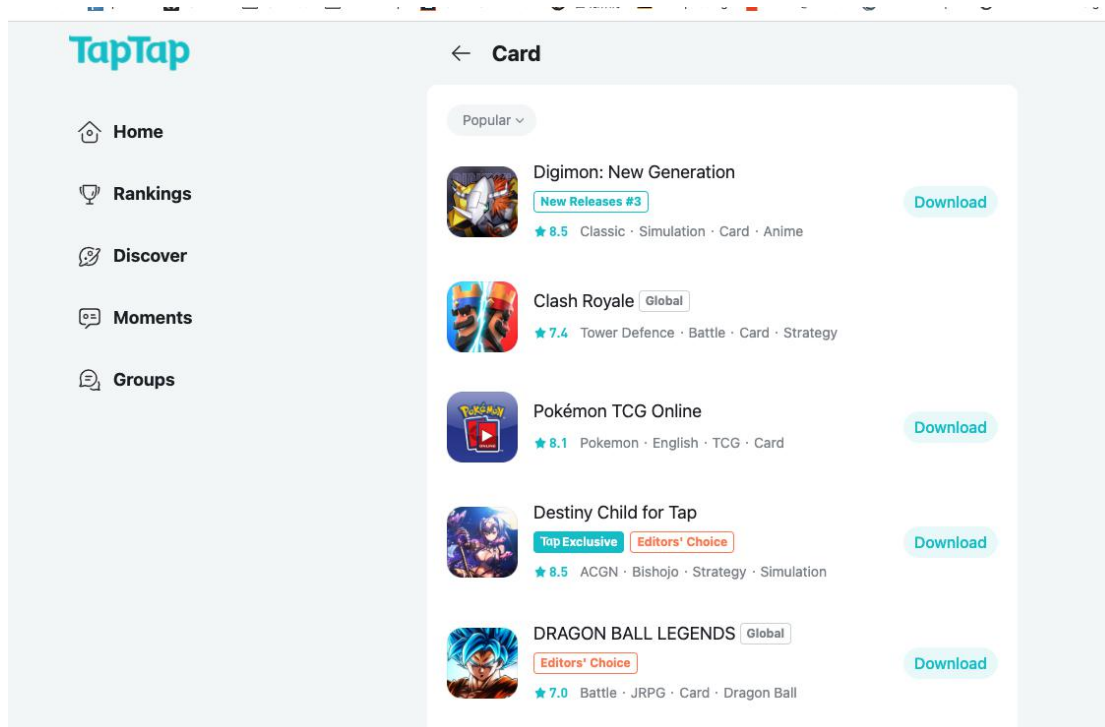


Then scraper will pick each of the region and scrape the top 15 popular games in this list. The name and id will be scraped which are then used as input for game scraper to scrape the detail information of these games in ranking list.

(16) For Genre scraper, the web driver should first open the common genres pages of Tap Tap like below:



Then scraper will record each genre's page link and request the driver to open these link one by one. The scraper will scrape top 10 popular games in each genre:



(17) If the user choose the json mode. The following hint should appear:

```
json -- Export game & ranking & genre data to json
json
Please pick a option to start
Game -- Export detail info of one game using id.
Ranking -- Export ranking list info to a json file.
Genre -- Export games of each genre to a json file.
Game
Please input a game id.
```

The game mode will export game information using id. If user input a id that does not exist in database, the following hint should appear:

```
Please input a game id.
2314
This id does not exist in database
Please input a game id.
```

If user input a existing id of game, the game information will be exported to result.json in json_file folder like below:

```
{
  "id": "214145",
  "name": "Gate of Nightmares",
  "region": null,
  "genre": [
    "JRPG",
    "Adventure",
    "RPG"
  ],
  "rating": " 8.6 ",
  "provider": "SQUARE ENIX Co.,Ltd.",
  "downloads": "4102",
  "followers": "14425",
  "logo": "https://img.tapimg.com/market/lcs/51666938c104636bceb3733598c2d090_360.png?imageMogr2/auto-orient",
  "intro": "\"Gate of Nightmares\" is a monster-blended RPG by Hiro Mashima and Square Enix.The stage of t",
  "reviews_link": [
    "https://www.taptap.io/review/2148582350",
    "https://www.taptap.io/review/2148582283",
    "https://www.taptap.io/review/2148582225",
    "https://www.taptap.io/review/2148582108",
    "https://www.taptap.io/review/2148582093",
    "https://www.taptap.io/review/2148582034",
  ]
}
```

(18) If the user pick Ranking or Genre mode, then all of the documents inside the collection will be exported to result.json.