Quality assurance

TEAM202218

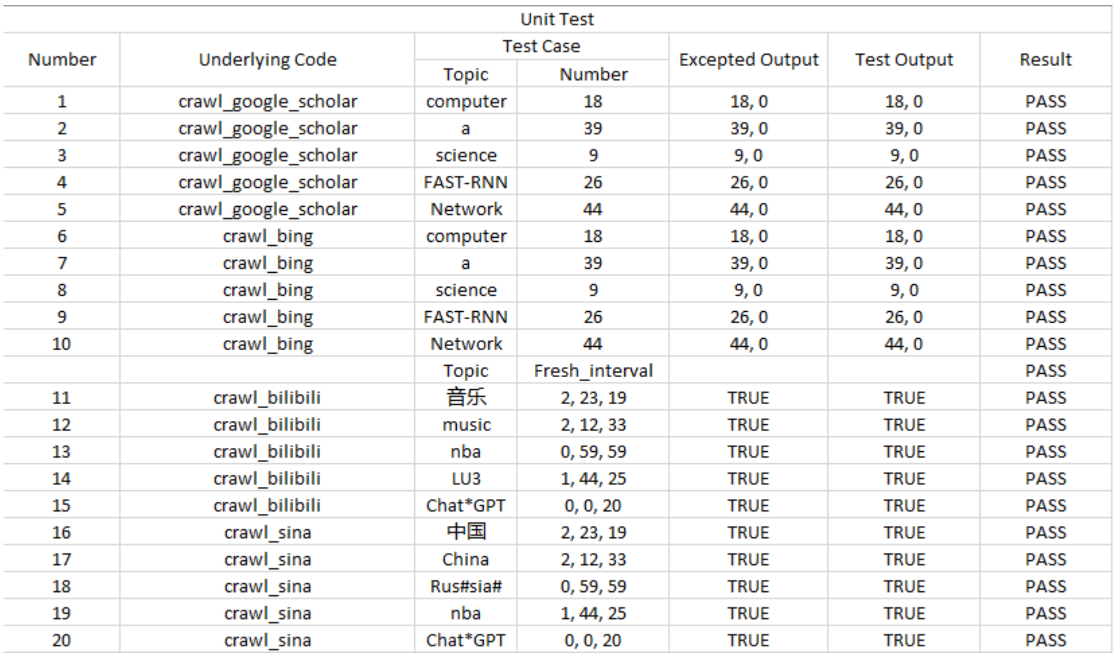
April 2023

1 Summary of Quality Assurance

The quality of the web monitoring robot can be guaranteed because of the quality assurance was strictly abide when each module was tested separately at first, then all the modules were combined and tested again. What can be made sure is that the software will not break down in any abnormal situations. Besides, all the users' data are encrypted , which won't be steal by others.

2 Unit Test

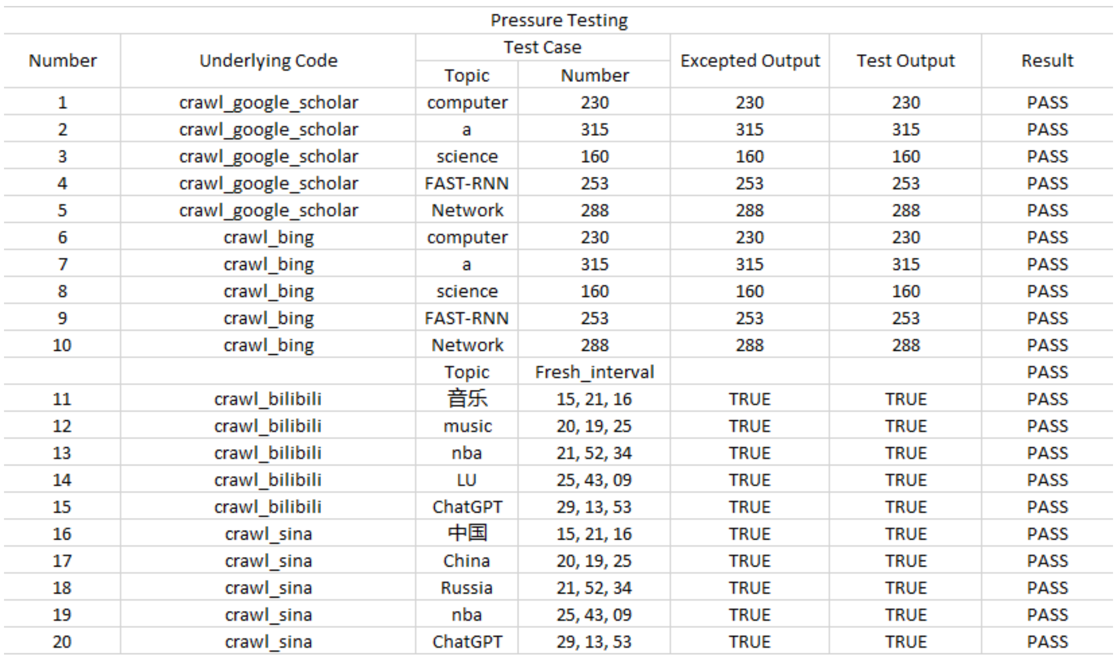
A unit is the smallest testable part of our software. In each Pytest Class, all the test functions test different aspects of performances of the particular code sharing the same input. The purpose of this test is to test the accuracy of the underlying code to ensure it crawling correct messages from the website.



Unit Test						
Number	Underlying Code	Test Case		Excepted Output	Test Output	Result
		Topic	Number			
1	crawl_google_scholar	computer	18	18, 0	18, 0	PASS
2	crawl_google_scholar	a	39	39, 0	39, 0	PASS
3	crawl_google_scholar	science	9	9, 0	9, 0	PASS
4	crawl_google_scholar	FAST-RNN	26	26, 0	26, 0	PASS
5	crawl_google_scholar	Network	44	44, 0	44, 0	PASS
6	crawl_bing	computer	18	18, 0	18, 0	PASS
7	crawl_bing	a	39	39, 0	39, 0	PASS
8	crawl_bing	science	9	9, 0	9, 0	PASS
9	crawl_bing	FAST-RNN	26	26, 0	26, 0	PASS
10	crawl_bing	Network	44	44, 0	44, 0	PASS
		Topic	Fresh_interval			PASS
11	crawl_bilibili	音乐	2, 23, 19	TRUE	TRUE	PASS
12	crawl_bilibili	music	2, 12, 33	TRUE	TRUE	PASS
13	crawl_bilibili	nba	0, 59, 59	TRUE	TRUE	PASS
14	crawl_bilibili	LU3	1, 44, 25	TRUE	TRUE	PASS
15	crawl_bilibili	Chat*GPT	0, 0, 20	TRUE	TRUE	PASS
16	crawl_sina	中国	2, 23, 19	TRUE	TRUE	PASS
17	crawl_sina	China	2, 12, 33	TRUE	TRUE	PASS
18	crawl_sina	Rus#sia#	0, 59, 59	TRUE	TRUE	PASS
19	crawl_sina	nba	1, 44, 25	TRUE	TRUE	PASS
20	crawl_sina	Chat*GPT	0, 0, 20	TRUE	TRUE	PASS

Figure 1: Unit Test

The form of this type of test is the same as Unit Test, the difference is that the inputs are abnormal meaning this type of inputs are rarely used in daily lives. The purpose of this test is to test the stability of the underlying code to prevent it from breaking down while running.

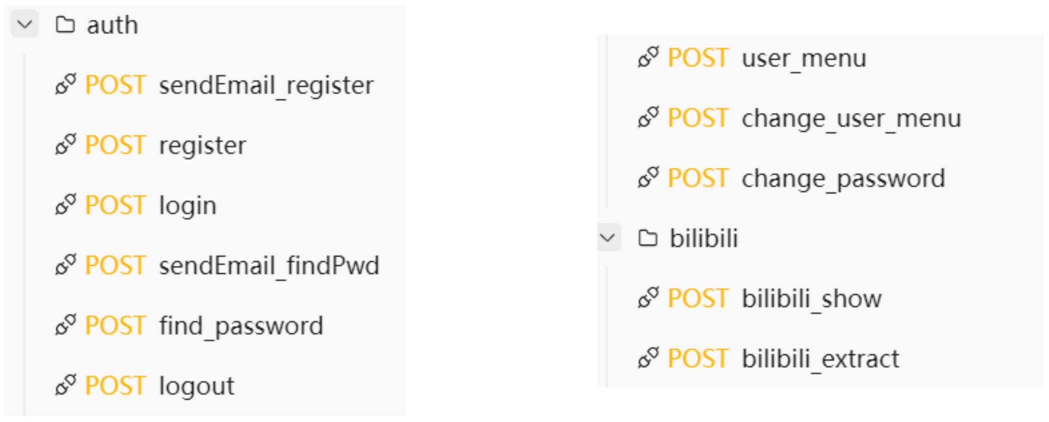


		Pressure Testing				
Number	Underlying Code	Test Case		Excepted Output	Test Output	Result
		Topic	Number			
1	crawl_google_scholar	computer	230	230	230	PASS
2	crawl_google_scholar	a	315	315	315	PASS
3	crawl_google_scholar	science	160	160	160	PASS
4	crawl_google_scholar	FAST-RNN	253	253	253	PASS
5	crawl_google_scholar	Network	288	288	288	PASS
6	crawl_bing	computer	230	230	230	PASS
7	crawl_bing	a	315	315	315	PASS
8	crawl_bing	science	160	160	160	PASS
9	crawl_bing	FAST-RNN	253	253	253	PASS
10	crawl_bing	Network	288	288	288	PASS
		Topic	Fresh_interval			PASS
11	crawl_bilibili	音乐	15, 21, 16	TRUE	TRUE	PASS
12	crawl_bilibili	music	20, 19, 25	TRUE	TRUE	PASS
13	crawl_bilibili	nba	21, 52, 34	TRUE	TRUE	PASS
14	crawl_bilibili	LU	25, 43, 09	TRUE	TRUE	PASS
15	crawl_bilibili	ChatGPT	29, 13, 53	TRUE	TRUE	PASS
16	crawl_sina	中国	15, 21, 16	TRUE	TRUE	PASS
17	crawl_sina	China	20, 19, 25	TRUE	TRUE	PASS
18	crawl_sina	Russia	21, 52, 34	TRUE	TRUE	PASS
19	crawl_sina	nba	25, 43, 09	TRUE	TRUE	PASS
20	crawl_sina	ChatGPT	29, 13, 53	TRUE	TRUE	PASS

Figure 2: Unit Test (pressure)

3 Integration Test

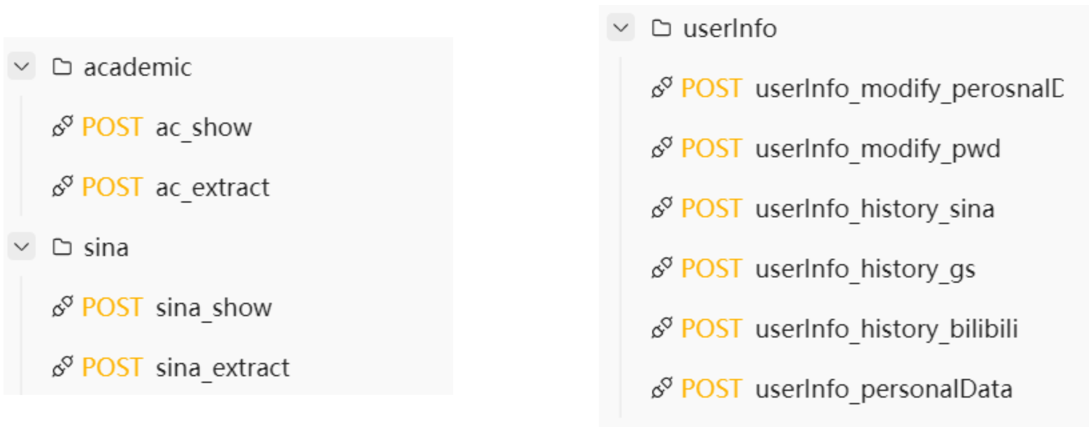
Integration testing is the process of testing the interface between two software units or modules. It focuses on determining the correctness of the interface[https://www.geeksforgeeks.org/software-engineering-integration-testing]. ApiPost is applied to test the combination of back end and underlying code. Imitating the front end, ApiPost sends requests along with json data to back end and receive json data passed by back end then showing the data. The purpose of this test is to enusre the back end is able to pass data between front end, underlying code and databases efficiently.



auth
- POST sendEmail_register
- POST register
- POST login
- POST sendEmail_findPwd
- POST find_password
- POST logout
- POST user_menu
- POST change_user_menu
- POST change_password

bilibili
- POST bilibili_show
- POST bilibili_extract

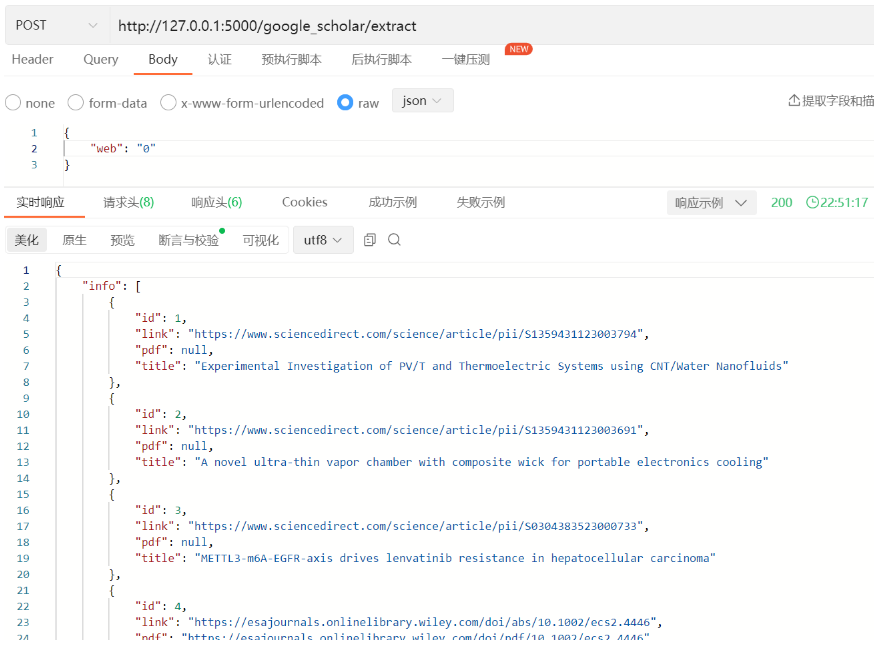
Figure 3: Integration Test



academic
POST ac_show
POST ac_extract
sina
POST sina_show
POST sina_extract

userInfo
POST userInfo_modify_perosnalD
POST userInfo_modify_pwd
POST userInfo_history_sina
POST userInfo_history_gs
POST userInfo_history_bilibili
POST userInfo_personalData

Figure 4: Integration Test



POST http://127.0.0.1:5000/google_scholar/extract

Header Query Body 认证 预执行脚本 后执行脚本 一键压测 NEW

none form-data x-www-form-urlencoded [✓ raw] json 提取字段和描

```
{
    "web": "0"
}
```

实时响应 请求头(8) 响应头(6) Cookies 成功示例 失败示例 响应示例 200 22:51:17

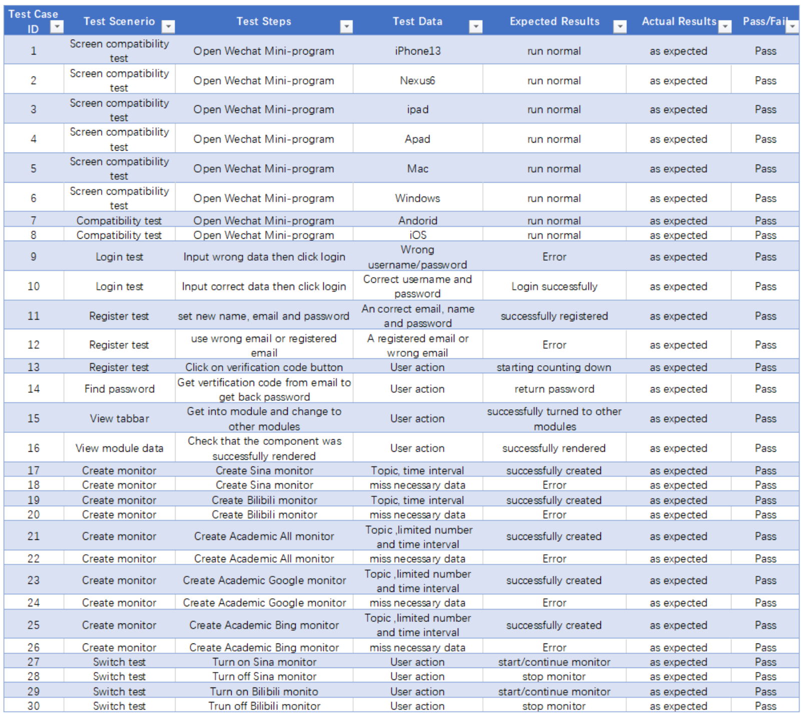
美化 原生 预览 断言与校验 可视化 utf8

```
{
    "info": [
        {
            "id": 1,
            "link": "https://www.sciencedirect.com/science/article/pii/S1359431123003794",
            "pdf": null,
            "title": "Experimental Investigation of PV/T and Thermoelectric Systems using CNT/Water Nanofluids"
        },
        {
            "id": 2,
            "link": "https://www.sciencedirect.com/science/article/pii/S1359431123003691",
            "pdf": null,
            "title": "A novel ultra-thin vapor chamber with composite wick for portable electronics cooling"
        },
        {
            "id": 3,
            "link": "https://www.sciencedirect.com/science/article/pii/S0304383523000733",
            "pdf": null,
            "title": "METTL3-m6A-EGFR-axis drives lenvatinib resistance in hepatocellular carcinoma"
        },
        {
            "id": 4,
            "link": "https://esajournals.onlinelibrary.wiley.com/doi/abs/10.1002/ecs2.4446",
            "pdf": "https://esajournals.onlinelibrary.wiley.com/doi/pdf/10.1002/ecs2.4446"
```

Figure 5: Integration Test Result

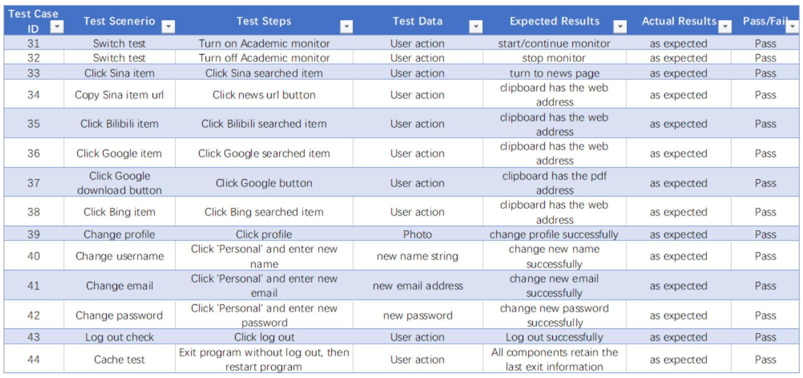
4 System Test

System test is to evaluate the overall functionality and performance of a complete and fully integrated software solution. It tests if the system meets the specified requirements and if it is suitable for delivery to the end-users[https://www.geeksforgeeks.org/system-testing]. All of the tests were written focusing on the requirements.



Test Case ID	Test Scenerio	Test Steps	Test Data	Expected Results	Actual Results	Pass/Fail
1	Screen compatibility test	Open Wechat Mini-program	iPhone13	run normal	as expected	Pass
2	Screen compatibility test	Open Wechat Mini-program	Nexus6	run normal	as expected	Pass
3	Screen compatibility test	Open Wechat Mini-program	ipad	run normal	as expected	Pass
4	Screen compatibility test	Open Wechat Mini-program	Apad	run normal	as expected	Pass
5	Screen compatibility test	Open Wechat Mini-program	Mac	run normal	as expected	Pass
6	Screen compatibility test	Open Wechat Mini-program	Windows	run normal	as expected	Pass
7	Compatibility test	Open Wechat Mini-program	Andorid	run normal	as expected	Pass
8	Compatibility test	Open Wechat Mini-program	iOS	run normal	as expected	Pass
9	Login test	Input wrong data then click login	Wrong username/password	Error	as expected	Pass
10	Login test	Input correct data then click login	Correct username and password	Login successfully	as expected	Pass
11	Register test	set new name, email and password	An correct email, name and password	successfully registered	as expected	Pass
12	Register test	use wrong email or registered email	A registered email or wrong email	Error	as expected	Pass
13	Register test	Click on verification code button	User action	starting counting down	as expected	Pass
14	Find password	Get vertification code from email to get back password	User action	return password	as expected	Pass
15	View tabbar	Get into module and change to other modules	User action	successfully turned to other modules	as expected	Pass
16	View module data	Check that the component was successfully rendered	User action	successfully rendered	as expected	Pass
17	Create monitor	Create Sina monitor	Topic, time interval	successfully created	as expected	Pass
18	Create monitor	Create Sina monitor	miss necessary data	Error	as expected	Pass
19	Create monitor	Create Bilibili monitor	Topic, time interval	successfully created	as expected	Pass
20	Create monitor	Create Bilibili monitor	miss necessary data	Error	as expected	Pass
21	Create monitor	Create Academic All monitor	Topic ,limited number and time interval	successfully created	as expected	Pass
22	Create monitor	Create Academic All monitor	miss necessary data	Error	as expected	Pass
23	Create monitor	Create Academic Google monitor	Topic ,limited number and time interval	successfully created	as expected	Pass
24	Create monitor	Create Academic Google monitor	miss necessary data	Error	as expected	Pass
25	Create monitor	Create Academic Bing monitor	Topic ,limited number and time interval	successfully created	as expected	Pass
26	Create monitor	Create Academic Bing monitor	miss necessary data	Error	as expected	Pass
27	Switch test	Turn on Sina monitor	User action	start/continue monitor	as expected	Pass
28	Switch test	Turn off Sina monitor	User action	stop monitor	as expected	Pass
29	Switch test	Turn on Bilibili monito	User action	start/continue monitor	as expected	Pass
30	Switch test	Trun off Bilibili monitor	User action	stop monitor	as expected	Pass

Figure 6: System Test



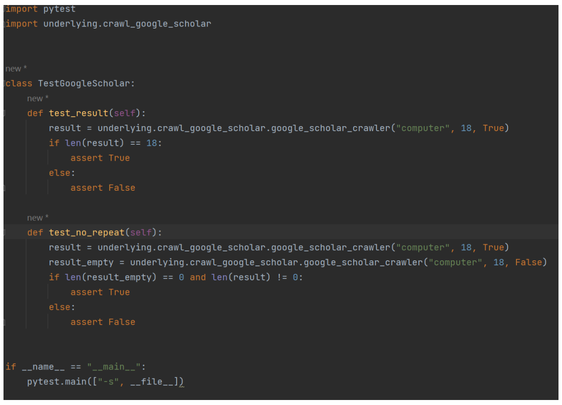
Test Case ID	Test Scenerio	Test Steps	Test Data	Expected Results	Actual Results	Pass/Fail
31	Switch test	Turn on Academic monitor	User action	start/continue monitor	as expected	Pass
32	Switch test	Turn off Academic monitor	User action	stop monitor	as expected	Pass
33	Click Sina item	Click Sina searched item	User action	turn to news page	as expected	Pass
34	Copy Sina item url	Click news url button	User action	clipboard has the web address	as expected	Pass
35	Click Bilibili item	Click Bilibili searched item	User action	clipboard has the web address	as expected	Pass
36	Click Google item	Click Google searched item	User action	clipboard has the web address	as expected	Pass
37	Click Google download button	Click Google button	User action	clipboard has the pdf address	as expected	Pass
38	Click Bing item	Click Bing searched item	User action	clipboard has the web address	as expected	Pass
39	Change profile	Click profile	Photo	change profile successfully	as expected	Pass
40	Change username	Click 'Personal' and enter new name	new name string	change new name successfully	as expected	Pass
41	Change email	Click 'Personal' and enter new email	new email address	change new email successfully	as expected	Pass
42	Change password	Click 'Personal' and enter new password	new password	change new password successfully	as expected	Pass
43	Log out check	Click log out	User action	Log out successfully	as expected	Pass
44	Cache test	Exit program without log out, then restart program	User action	All components retain the last exit information	as expected	Pass

Figure 7: System Test

5 Performance Testing

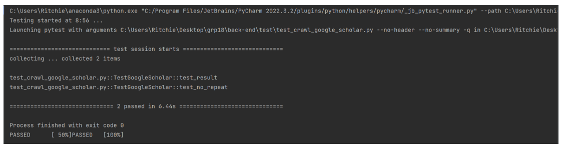
5.1 Underlying code

The requirement of the underlying codes are to return information according to conditions and duplicated information cannot appear. The performance tests are applied to test the results. Taking Google Sholar as an example, the first test (Figure 8a) is to prove the number of the result match the condition (the former one), the second (Figure 8a) is to prove no repeated essays are crawled (the latter one). Both of them are passed as shown in Figure 8b, indicating that the underlying code is available.



```
import pytest
import underlying.crawl_google_scholar


new *
class TestGoogleScholar:
    new *
    def test_result(self):
        result = underlying.crawl_google_scholar.google_scholar_crawler("computer", 18, True)
        if len(result) == 18:
            assert True
        else:
            assert False

    new *
    def test_no_repeat(self):
        result = underlying.crawl_google_scholar.google_scholar_crawler("computer", 18, True)
        result_empty = underlying.crawl_google_scholar.google_scholar_crawler("computer", 18, False)
        if len(result_empty) == 0 and len(result) != 0:
            assert True
        else:
            assert False


if __name__ == "__main__":
    pytest.main(["-s", __file__])
```

(a) Test cases



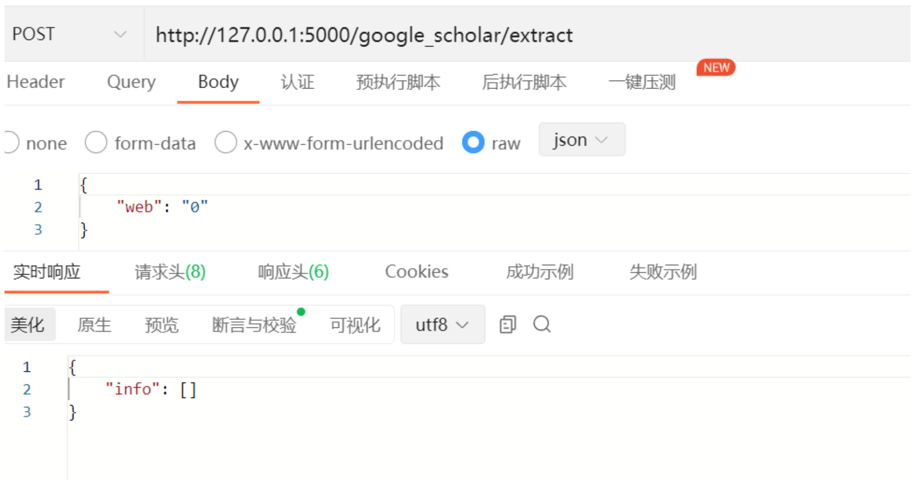
```
C:\Users\Ritchie\anaconda3\python.exe "C:/Program Files/JetBrains/PyCharm 2022.3.2/plugins/python/helpers/pycharm/_jb_pytest_runner.py" --path C:\Users\Ritchi
Testing started at 8:56 ...
Launching pytest with arguments C:\Users\Ritchie\Desktop\grp18\back-end\test\test_crawl_google_scholar.py --no-header --no-summary -q in C:\Users\Ritchie\Desk

============================== test session starts ==============================
collecting ... collected 2 items

test_crawl_google_scholar.py::TestGoogleScholar::test_result
test_crawl_google_scholar.py::TestGoogleScholar::test_no_repeat

============================== 2 passed in 6.44s ===============================

Process finished with exit code 0
PASSED      [ 50%]PASSED   [100%]
```

(b) Test results

Figure 8: Underlying code performance testing

5.2 Back-end

The requirement of the back-end is to receive requests sent from the front-end and return results in this session without repeatedly showing. Taking Google Scholar as an example, as Figure ?? and Figure ?? indicated, the back-end is able to receive requests and return results normally. What is still needed to be test is the back-end should reject to return duplicated essays. Figure 9 shows that, if the same extract request sent again, back-end will return an blank array to show no more new essays.



POST http://127.0.0.1:5000/google_scholar/extract

```
{
    "web": "0"
}
```

```
{
    "info": []
}
```

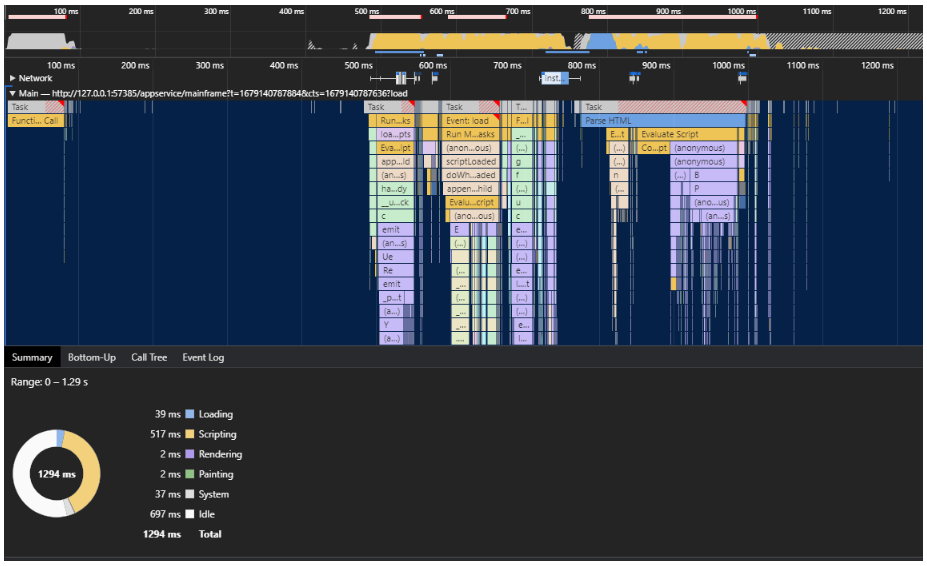
Figure 9: Back-end performance test

5.3 Front-end

The front-end work is tested on Wechat DevTools. The tool provides performance monitoring testing and auditing modules. They graphically show the response time of the application and score their performances and best practices to help us effectively evaluate the front-end effort.

As shown in Figure 10, the small program has completed loading, rendering, painting and other operations in a very short time, proving its good performance.

Figure 11 shows how Wechat DevTools rated the programs performance and best practices. This score is enough to prove the excellent performances of the software. Wechat DevTools believes that best practices are lacking because some redundant components are declared in the front-end wxml file. It has been checked that these components, which are considered redundant, were created (inevitably) when Wechat DevTools compiled the Taro framework source code we used, and have no impact on the normal operation of the small program.


Network
Main — http://127.0.0.1:57385/appservice/mainframe?t=1679140787884&cts=1679140787636?load
Summary
Bottom-Up
Call Tree
Event Log

Range: 0 – 1.29 s

39 ms	Loading
517 ms	Scripting
2 ms	Rendering
2 ms	Painting
37 ms	System
697 ms	Idle
1294 ms	**Total**

Figure 10: Performance test in Wechat DevTools's performance model

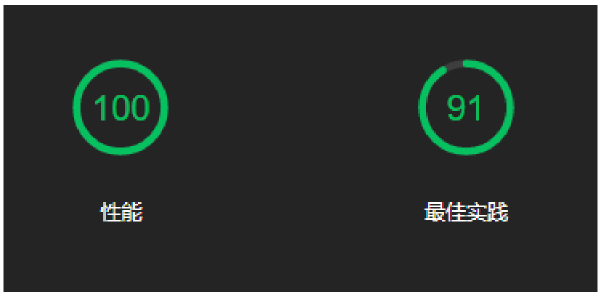
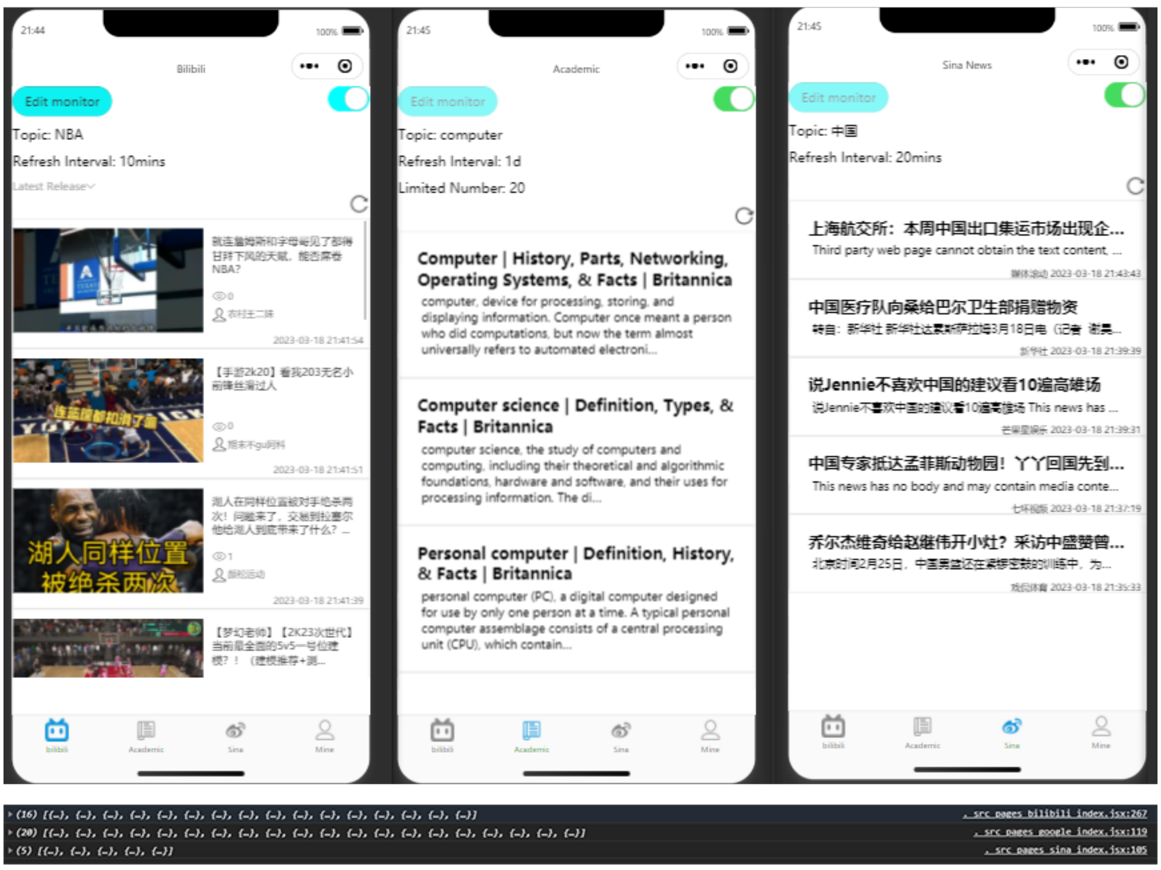


Figure 11: Performance score in Wechat DevTools's audis model

6 Concurrency Testing

Concurrency is important for this applet, which relies on concurrency to allow the three monitoring modules to work simultaneously. As shown in the figure 12, the applet is able to perform three monitoring functions simultaneously and get the data correctly and render the results within the specified time. This test proves that the concurrency of the small program is guaranteed.



21:44 100%

Bilibili

Edit monitor

Topic: NBA

Refresh Interval: 10mins

Latest Release

就连詹姆斯和字母哥见了都得甘拜下风的天赋，能否席卷NBA?
0
农村王二妹
2023-03-18 21:41:54

【手游2k20】看我203无名小前锋丝滑过人
0
租末不gu同科
2023-03-18 21:41:51

湖人在同样位置被对手绝杀两次！问题来了，交易到拉塞尔他给湖人到底带来了什么？ ...
1
新松运动
2023-03-18 21:41:39

【梦幻老帅】【2K23次世代】当前最全面的5v5一号位建模？！（建模推荐+测...

bilibili Academic Sina Mine

21:45 100%

Academic

Edit monitor

Topic: computer

Refresh Interval: 1d

Limited Number: 20

Computer | History, Parts, Networking, Operating Systems, & Facts | Britannica
computer, device for processing, storing, and displaying information. Computer once meant a person who did computations, but now the term almost universally refers to automated electroni...

Computer science | Definition, Types, & Facts | Britannica
computer science, the study of computers and computing, including their theoretical and algorithmic foundations, hardware and software, and their uses for processing information. The di...

Personal computer | Definition, History, & Facts | Britannica
personal computer (PC), a digital computer designed for use by only one person at a time. A typical personal computer assemblage consists of a central processing unit (CPU), which contain...

bilibili Academic Sina Mine

21:45 100%

Sina News

Edit monitor

Topic: 中国

Refresh Interval: 20mins

上海航交所：本周中国出口集运市场出现企...
Third party web page cannot obtain the text content, ...
媒体滚动 2023-03-18 21:43:43

中国医疗队向桑给巴尔卫生部捐赠物资
转自：新华社 新华社达累斯萨拉姆3月18日电（记者 谢昊...
新华社 2023-03-18 21:39:39

说Jennie不喜欢中国的建议看10遍高维场
说Jennie不喜欢中国的建议看10遍高维场 This news has ...
芒果星娱乐 2023-03-18 21:39:31

中国专家抵达孟菲斯动物园！丫丫回国先到...
This news has no body and may contain media conte...
七环视频 2023-03-18 21:37:19

乔尔杰维奇给赵继伟开小灶？采访中盛赞曾...
北京时间2月25日，中国男篮还在紧锣密鼓的训练中，为...
戏说体育 2023-03-18 21:35:33

bilibili Academic Sina Mine

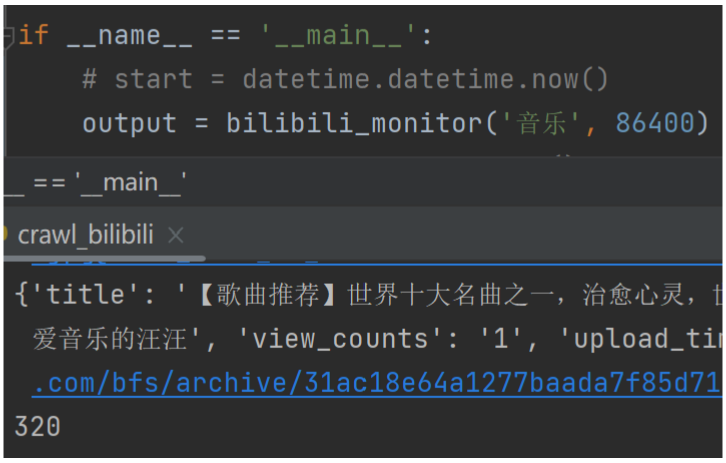
```
▸ (16) [{…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}]                    ._src_pages_bilibili_index.jsx:267
▸ (20) [{…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}]   ._src_pages_google_index.jsx:119
▸ (5) [{…}, {…}, {…}, {…}, {…}]                                                                          ._src_pages_sina_index.jsx:105
```

Figure 12: Three modules in the program run simultaneously

7 Pressure Testing

7.1 Back-end

To avoid being blocked by the website, pressure tests have to be applied to test the acceptance of each website. The methods to conduct the pressure testing is to continue to crawl each website under a particular topic and refresh interval for a period of time. Take Bilibili (updating speed is the highest) as an example, the Bilibili module in back-end runs with "music" as topic and "0 days, 0 hours, 5 minutes" as refresh interval and persists about 12 hours when each thread can return around 100 videos, proving that the frequency of crawling is acceptable. In addition, running the module with a particular topic and setting the interval to "1 day" (Figure 13). The code is still available, proving that the underlying code is creditable and stable.



```
if __name__ == '__main__':
    # start = datetime.datetime.now()
    output = bilibili_monitor('音乐', 86400)
```

```
_ == '__main__'
```

crawl_bilibili

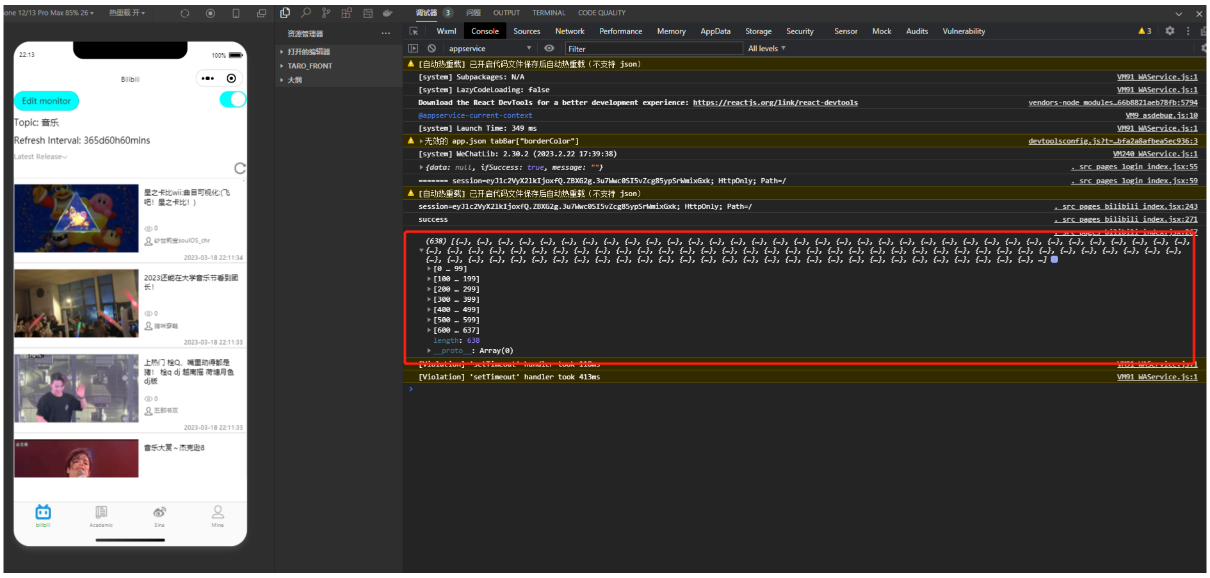
```
{'title': '【歌曲推荐】世界十大名曲之一，治愈心灵，
 爱音乐的汪汪', 'view_counts': '1', 'upload_ti
 .com/bfs/archive/31ac18e64a1277baada7f85d71
320
```

Figure 13: Back-end pressing test

7.2 Front-end

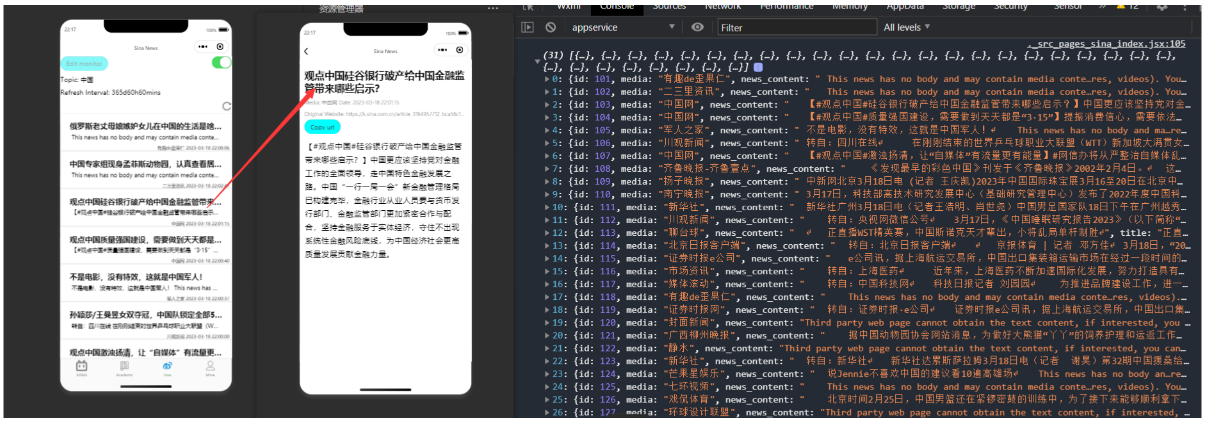
The pressure test of the front end focuses on the correct rendering display and routing given a large amount of data. Among them, the modules that are most likely to fail due to the large amount of data are the module that monitor Bilibili videos and the module that monitor Sina news.

Because users being highly active, the Bilbili module may query a large amount of data in a short time by inputting popular keywords, which leads to the front-end need to render a large number of pictures. As shown in figure 14, the test proves that the program can render a large number of images correctly. The Bilibili module passes the stress test.



```
[自动热重载] 已开启代码文件保存后自动热重载（不支持 json）
[system] Subpackages: N/A                                                        VM91 WAService.js:1
[system] LazyCodeLoading: false                                                  VM91 WAService.js:1
Download the React DevTools for a better development experience: https://reactjs.org/link/react-devtools    vendors-node_modules…66b8821aeb78fb:5794
@appservice-current-context                                                      VM9 asdebug.js:10
[system] Launch Time: 349 ms                                                     VM91 WAService.js:1
▸无效的 app.json tabBar["borderColor"]                           devtoolsconfig.js?t=…bfa2a8afbea5ec936:3
[system] WeChatLib: 2.30.2 (2023.2.22 17:39:38)                                  VM240 WAService.js:1
▸{data: null, ifSuccess: true, message: ""}                              . src pages login index.jsx:55
======= session=eyJ1c2VyX21kIjoxfQ.ZBXG2g.3u7Wwc0SI5vZcg85ypSrWmixGxk; HttpOnly; Path=/    . src pages login index.jsx:59
[自动热重载] 已开启代码文件保存后自动热重载（不支持 json）
session=eyJ1c2VyX21kIjoxfQ.ZBXG2g.3u7Wwc0SI5vZcg85ypSrWmixGxk; HttpOnly; Path=/    . src pages bilibili index.jsx:243
success                                                                  . src pages bilibili index.jsx:271
  (638) [{…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…},
▾{…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…},
  {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, …]
   ▸[0 … 99]
   ▸[100 … 199]
   ▸[200 … 299]
   ▸[300 … 399]
   ▸[400 … 499]
   ▸[500 … 599]
   ▸[600 … 637]
    length: 638
   ▸__proto__: Array(0)
[Violation] 'setTimeout' handler took 413ms                                      VM91 WAService.js:1
>
```

Figure 14: Pressing test for Bilibili module


Sina News

Edit monitor

Topic: 中国

Refresh Interval: 365d60h60mins

俄罗斯老丈母娘嫉妒女儿在中国的生活是啥...
This news has no body and may contain media conte...
有趣de歪果仁 2023-03-18 22:08:06

中国专家组现身孟菲斯动物园，认真查看居...
This news has no body and may contain media conte...
二三里资讯 2023-03-18 22:02:41

观点中国硅谷银行破产给中国金融监管带来...
【#观点中国#硅谷银行破产给中国金融监管带来哪些启示...
中国网 2023-03-18 22:01:15

观点中国质量强国建设，需要做到天天都是...
【#观点中国#质量强国建设，需要做到天天都是“3·15”...
中国网 2023-03-18 22:00:40

不是电影，没有特效，这就是中国军人！
不是电影，没有特效，这就是中国军人！ This news has ...
军人之家 2023-03-18 22:00:37

孙颖莎/王曼昱女双夺冠，中国队锁定全部5...
转自：四川在线 在刚刚结束的世界乒乓球职业大联盟（W...
川观新闻 2023-03-18 22:00:00

观点中国激浊扬清，让“自媒体”有流量更...

观点中国硅谷银行破产给中国金融监管带来哪些启示?

Media: 中国网 Date: 2023-03-18 22:01:15

Original Website: https://k.sina.com.cn/article_3164957712_bca56c1...

Copy url

【#观点中国#硅谷银行破产给中国金融监管带来哪些启示？】中国更应该坚持党对金融工作的全面领导，走中国特色金融发展之路。中国“一行一局一会”新金融管理格局已构建完毕，金融行业从业人员要与货币发行部门、金融监管部门更加紧密合作与配合，坚持金融服务于实体经济，守住不出现系统性金融风险底线，为中国经济社会更高质量发展贡献金融力量。

```
appservice                      Filter                All levels
                                                       ._src_pages_sina_index.jsx:105
(31) [{…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…},
{…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}]
  0: {id: 101, media: "有趣de歪果仁", news_content: " This news has no body and may contain media conte…res, videos). You…
  1: {id: 102, media: "二三里资讯", news_content: "   This news has no body and may contain media conte…res, videos). You…
  2: {id: 103, media: "中国网", news_content: "   【#观点中国#硅谷银行破产给中国金融监管带来哪些启示？】中国更应该坚持党对金…
  3: {id: 104, media: "中国网", news_content: "   【#观点中国#质量强国建设，需要做到天天都是“3·15”】提振消费信心，需要依法…
  4: {id: 105, media: "军人之家", news_content: " 不是电影，没有特效，这就是中国军人！↲    This news has no body and ma…re…
  5: {id: 106, media: "川观新闻", news_content: " 转自：四川在线↲     在刚刚结束的世界乒乓球职业大联盟（WTT）新加坡大满贯女…
  6: {id: 107, media: "中国网", news_content: "   【#观点中国#激浊扬清，让“自媒体”有流量更有能量】#网信办将从严整治自媒体乱…
  7: {id: 108, media: "齐鲁晚报-齐鲁壹点", news_content: "    《发现最早的彩色中国》刊发于《齐鲁晚报》2002年2月4日。↲  这…
  8: {id: 109, media: "扬子晚报", news_content: " 中新网北京3月18日电 (记者 王庆凯)2023年中国国际珠宝展3月16至20日在北京中…
  9: {id: 110, media: "南宁晚报", news_content: " 3月17日，科技部高技术研究发展中心（基础研究管理中心）发布了2022年度中国科…
  10: {id: 111, media: "新华社", news_content: "  新华社广州3月18日电（记者王浩明、肖世尧）中国男足国家队18日下午在广州越秀…
  11: {id: 112, media: "川观新闻", news_content: "    转自：央视网微信公号↲   3月17日，《中国睡眠研究报告2023》（以下简称“…
  12: {id: 113, media: "聊台球", news_content: "  ↲   正直播WST精英赛，中国斯诺克天才辈出，小将乱局单杆制胜↲", title: "正直…
  13: {id: 114, media: "北京日报客户端", news_content: "  转自：北京日报客户端↲   ↲   京报体育 | 记者 邓方佳↲ 3月18日，“20…
  14: {id: 115, media: "证券时报e公司", news_content: "   e公司讯，据上海航运交易所，中国出口集装箱运输市场在经过一段时间的…
  15: {id: 116, media: "市场资讯", news_content: "    转自：上海医药↲     近年来，上海医药不断加速国际化发展，努力打造具有…
  16: {id: 117, media: "媒体滚动", news_content: "    转自：中国科技网↲   科技日报记者 刘园园↲    为推进品牌建设工作，进一…
  17: {id: 118, media: "有趣de歪果仁", news_content: "    This news has no body and may contain media conte…res, videos).…
  18: {id: 119, media: "证券时报网", news_content: "  转自：证券时报·e公司↲   证券时报e公司讯，据上海航运交易所，中国出口集…
  19: {id: 120, media: "封面新闻", news_content: "Third party web page cannot obtain the text content, if interested, you …
  20: {id: 121, media: "广西柳州晚报", news_content: "    据中国动物园协会网站消息，为做好大熊猫“丫丫”的饲养护理和运返工作…
  21: {id: 122, media: "静水", news_content: "Third party web page cannot obtain the text content, if interested, you can…
  22: {id: 123, media: "新华社", news_content: "  转自：新华社↲   新华社达累斯萨拉姆3月18日电（记者  谢昊）第32期中国援桑给…
  23: {id: 124, media: "芒果星娱乐", news_content: "  说Jennie不喜欢中国的建议看10遍高雄场↲    This news has no body an…re…
  24: {id: 125, media: "七环视频", news_content: "    This news has no body and may contain media conte…res, videos). You…
  25: {id: 126, media: "戏侃体育", news_content: "    北京时间2月25日，中国男篮还在紧锣密鼓的训练中，为了接下来能够顺利拿下…
  26: {id: 127, media: "环球设计联盟", news_content: "Third party web page cannot obtain the text content, if interested, …
```

Figure 15: Pressing test for Sina module