

FEEDBACK ASSESSMENT SYSTEM USING SENTIMENT ANALYSIS

TEST REPORT

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TESTING

UNIT TESTING

TEST 1

getAllFeedbacks

(index)	feedback_id	user_id	service_id	description	sentiment	created_at
0	'xNYhmVcf29AkXWKUNCzh7'	'_UEXRYY2qF6mp7GD5i129'	'CgNFS4GWeV1UvNBLYsbVl'	'A fantasti...'	0.375	'2022-03-31 08:02:36'
1	'xjuiJateekzyRk7Y1oo6'	'_UEXRYY2qF6mp7GD5i129'	'ViiP5QaFahoDPby7_kMBA'	'I chatted ...'	0.6333333333333333	'2022-03-31 08:04:33'
2	'WHnK03r6bBi3uyLmJxyAK'	'_UEXRYY2qF6mp7GD5i129'	'9aJIoVNERpF_hNtve_LKa'	'Bad phone ...'	-0.2499999999999992	'2022-03-31 08:06:35'
3	'c5mnnotr70Q0yr8FEZ0uja'	'h4vFvXoycGDDcdUmGmV9E'	'CgNFS4GWeV1UvNBLYsbVl'	'I had a ve...'	-0.4799999999999999	'2022-03-31 08:32:35'
4	'UHT9dPNCudKTJkkJRvdvD'	'h4vFvXoycGDDcdUmGmV9E'	'T6Gx-kQb06cUUmsFFu9tv'	'The chatbo...'	0	'2022-03-31 08:33:47'
5	'RzXMYEJknRcU3oSrg1YFb'	'-r40FSIFy9aT1fTs3NndF'	'amzGuTlj2ttRD-a0Pqk_Z'	'Did not be...'	0.1	'2022-03-31 08:37:13'
6	'ia2NSE6gH_2yoThsxPTbT'	'-r40FSIFy9aT1fTs3NndF'	'CgNFS4GWeV1UvNBLYsbVl'	'Finally go...'	0	'2022-03-31 08:38:10'
7	'qEumFhSmYD_XLiK0h9EJp'	'7Mc9i-1Pj58iNJ1HuWkWO'	'CgNFS4GWeV1UvNBLYsbVl'	'Amazing se...'	0.6333333333333333	'2022-04-14 16:29:46'

Test passed

This function returns all the feedbacks given by all the users

TEST 2

getAdminByUsername

(index)	admin_id	username	password	email	created_at
getAdminByUsername	'xZMFhsgegPnoNf9RjQzYj'	'kiachi'	'\$2b\$10\$vCX6UIte73xCV09a0amjQ.6Z5jdVzX0sx0Vv9IzIWzgq6rvDwbVC.'	'raikiachi@gmail.com'	'2022-04-14 07:36:25'

Test passed

This function returns the corresponding admin to the given admin ID

TEST 3

getUserByUsername

(index)	user_id	username	password	email	created_at
getUserByUsername	'7Mc9i-1Pj58iNj1HuWkWO'	'ankit_kumar'	'\$2b\$10\$arKLKJRlbwQqE51G0BamBe26jhZSX0caQSa9iEKhQOK9.RTUKHeKq'	'dushyantrai1941@gmail.com'	'2022-04-14 16:26:58'

Test passed

This function returns the corresponding user to the given username

TEST 4

getFeedbackByServiceID

(index)	feedback_id	user_id	service_id	description	sentiment	created_at
0	'xNYhmVcf29AkXWKUNczh7'	'_UEXRYY2qF6mp7GD5i129'	'CgNFS4GWeV1UvNBLYsbVl'	'A fantasti...'	0.375	'2022-03-31 08:02:36'
1	'c5mnotr70Q0yr8FEZ0uja'	'h4vFvXoycGDDcdUmGmV9E'	'CgNFS4GWeV1UvNBLYsbVl'	'I had a ve...'	-0.4799999999999999	'2022-03-31 08:32:35'
2	'ia2NSE6gH_2yoThsxPTbT'	'-r40FSIFy9aT1fTs3NndF'	'CgNFS4GWeV1UvNBLYsbVl'	'Finally go...'	0	'2022-03-31 08:38:10'
3	'qEumFhSmYD_XLiK0h9EJp'	'7Mc9i-1Pj58iNJ1HuWkW0'	'CgNFS4GWeV1UvNBLYsbVl'	'Amazing se...'	0.6333333333333333	'2022-04-14 16:29:46'

Test passed

This function returns the corresponding feedbacks to given service ID

TEST 5

getServiceByAdminID

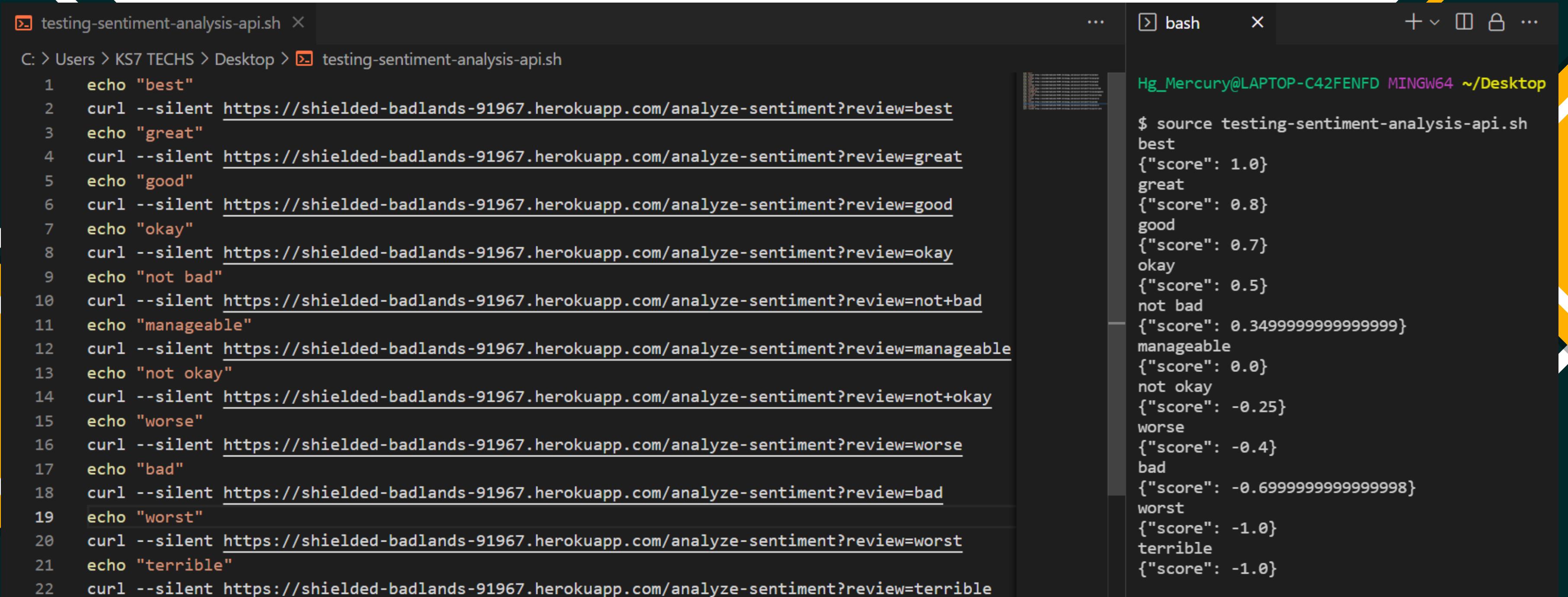
(index)	service_id	service_name	admin_id	service_desc	created_at
0	'CgNFS4GWeV1UvNBLYsbVl'	'Walk-in Service'	'3lAlr601D8_Fh9i8vtMdI'	'Walk-in di...'	'2022-03-31 06:59:29'
1	'9aJIoVNERpF_hNtve_LKa'	'Phone Service'	'3lAlr601D8_Fh9i8vtMdI'	'Get your p...'	'2022-03-31 07:46:00'
2	'amzGuTlj2ttRD-a0Pqk_Z'	'Email Service'	'3lAlr601D8_Fh9i8vtMdI'	'Email your...'	'2022-03-31 07:49:49'
3	'ViiP5QaFahoDPby7_kMBA'	'Live Chat Service'	'3lAlr601D8_Fh9i8vtMdI'	'We provide...'	'2022-03-31 07:52:10'
4	'T6Gx-kQb06cUUmsFfU9tv'	'Chatbot Service'	'3lAlr601D8_Fh9i8vtMdI'	'Our chatbo...'	'2022-03-31 07:53:36'

Test passed

This function returns the corresponding services offered by an Admin

TEST 6

Testing the Sentiment Analysis API



```
testing-sentiment-analysis-api.sh × ... bash × + ⌂ ⌒ ...  
C: > Users > KS7 TECHS > Desktop > testing-sentiment-analysis-api.sh  
1 echo "best"  
2 curl --silent https://shielded-badlands-91967.herokuapp.com/analyze-sentiment?review=best  
3 echo "great"  
4 curl --silent https://shielded-badlands-91967.herokuapp.com/analyze-sentiment?review=great  
5 echo "good"  
6 curl --silent https://shielded-badlands-91967.herokuapp.com/analyze-sentiment?review=good  
7 echo "okay"  
8 curl --silent https://shielded-badlands-91967.herokuapp.com/analyze-sentiment?review=okay  
9 echo "not bad"  
10 curl --silent https://shielded-badlands-91967.herokuapp.com/analyze-sentiment?review=not+bad  
11 echo "manageable"  
12 curl --silent https://shielded-badlands-91967.herokuapp.com/analyze-sentiment?review=manageable  
13 echo "not okay"  
14 curl --silent https://shielded-badlands-91967.herokuapp.com/analyze-sentiment?review=not+okay  
15 echo "worse"  
16 curl --silent https://shielded-badlands-91967.herokuapp.com/analyze-sentiment?review=worse  
17 echo "bad"  
18 curl --silent https://shielded-badlands-91967.herokuapp.com/analyze-sentiment?review=bad  
19 echo "worst"  
20 curl --silent https://shielded-badlands-91967.herokuapp.com/analyze-sentiment?review=worst  
21 echo "terrible"  
22 curl --silent https://shielded-badlands-91967.herokuapp.com/analyze-sentiment?review=terrible  
  
Hg_Mercury@LAPTOP-C42FENFD MINGW64 ~/Desktop  
$ source testing-sentiment-analysis-api.sh  
best  
{"score": 1.0}  
great  
{"score": 0.8}  
good  
{"score": 0.7}  
okay  
{"score": 0.5}  
not bad  
{"score": 0.3499999999999999}  
manageable  
{"score": 0.0}  
not okay  
{"score": -0.25}  
worse  
{"score": -0.4}  
bad  
{"score": -0.699999999999998}  
worst  
{"score": -1.0}  
terrible  
{"score": -1.0}
```

The sentiment analysis API returns a score range (-1,1). We can observe the deviation in score based on the word content of the review.

**AFTER UNIT TESTS, IT WAS CONCLUDED THAT ALL THE
REQUIRED FUNCTIONS WERE WORKING AS INTENDED.**

INTEGRATION TESTING

It was concluded that we didn't need to separately perform an integration test since our routes directly use the database methods as shown before and all of the aggregate functions are performed by the database.

SYSTEM TESTING

TEST 1

Index Route ("")



Carbon Feedbacks

Encompass the genuine sentiment of the users towards a particular product or service.

Login As Admin

Register As Admin

Sometimes, 5 stars aren't enough to encompass your feelings, you can write it out. Your feedback help us improve.

Login As User

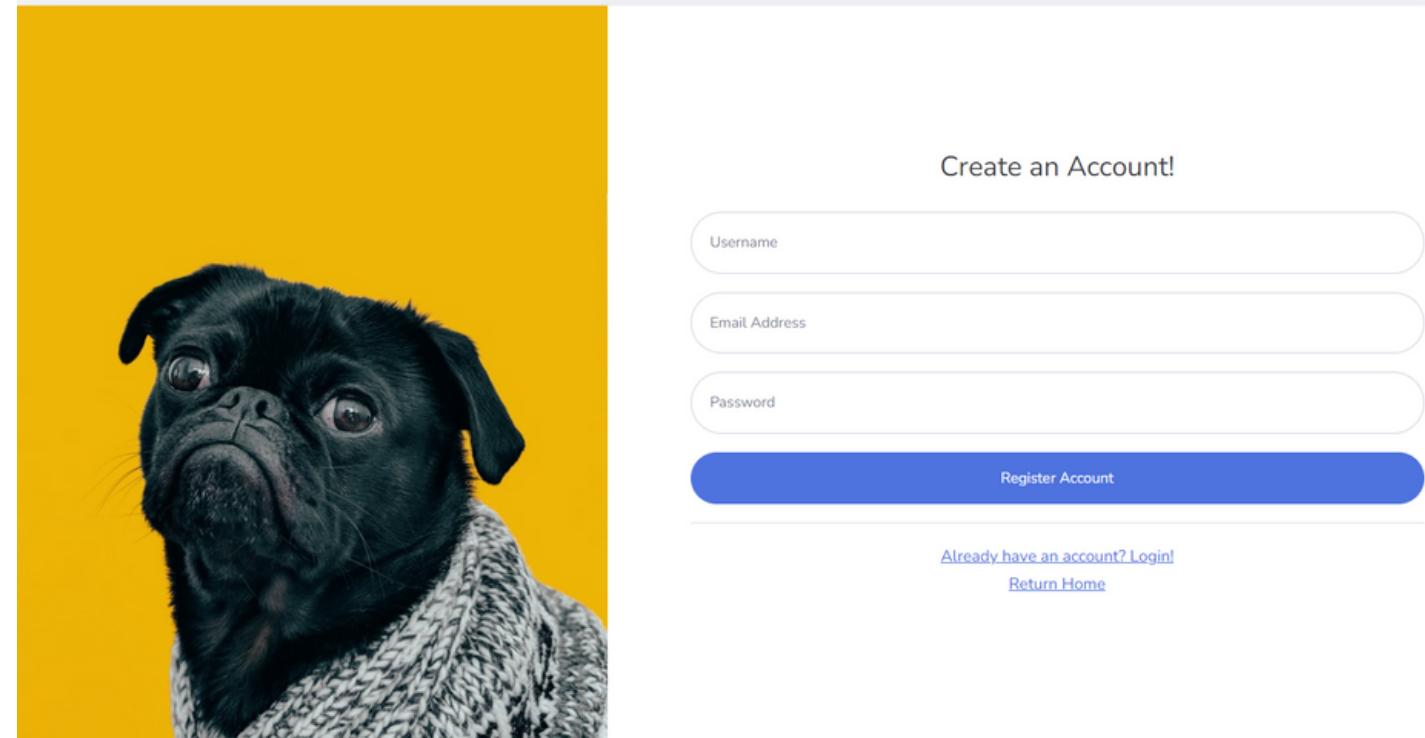
Register As User

Function - Redirect to route "/login"

Description - The login routes allows the user to login to the system

TEST 2

Login Form ("/login")



Create an Account!

Username

Email Address

Password

Register Account

[Already have an account? Login!](#)
[Return Home](#)

Function – Render a form

Description – This route allows the users to input their credentials to log in to the system.

Entering wrong information causes a redirect to "/login" again indication failure.

TEST 3

Session ID

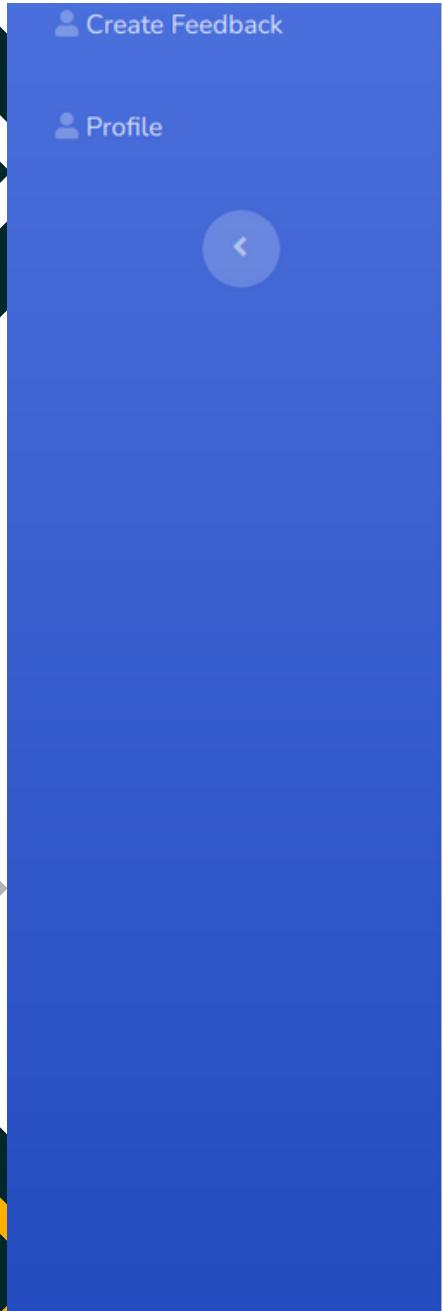
Name	Value	Domain	Path	Expires ..
connect.sid	s%3Ar9bhCyWHsTL98HEmogbI2G83R9Z-tAHD.%2...	localhost	/	Session

Function - Session ID with an expiry date is stored on the client-side

Description - Session ID allows the server to identify if the user is logged-in, in order to avoid repetitive login

TEST 4

User Dashboard ("[/dashboard/user](#)")



The dashboard displays a list of feedback entries. Each entry includes the feedback description, service type, creation date, and two action buttons: 'Delete' and 'Update'.

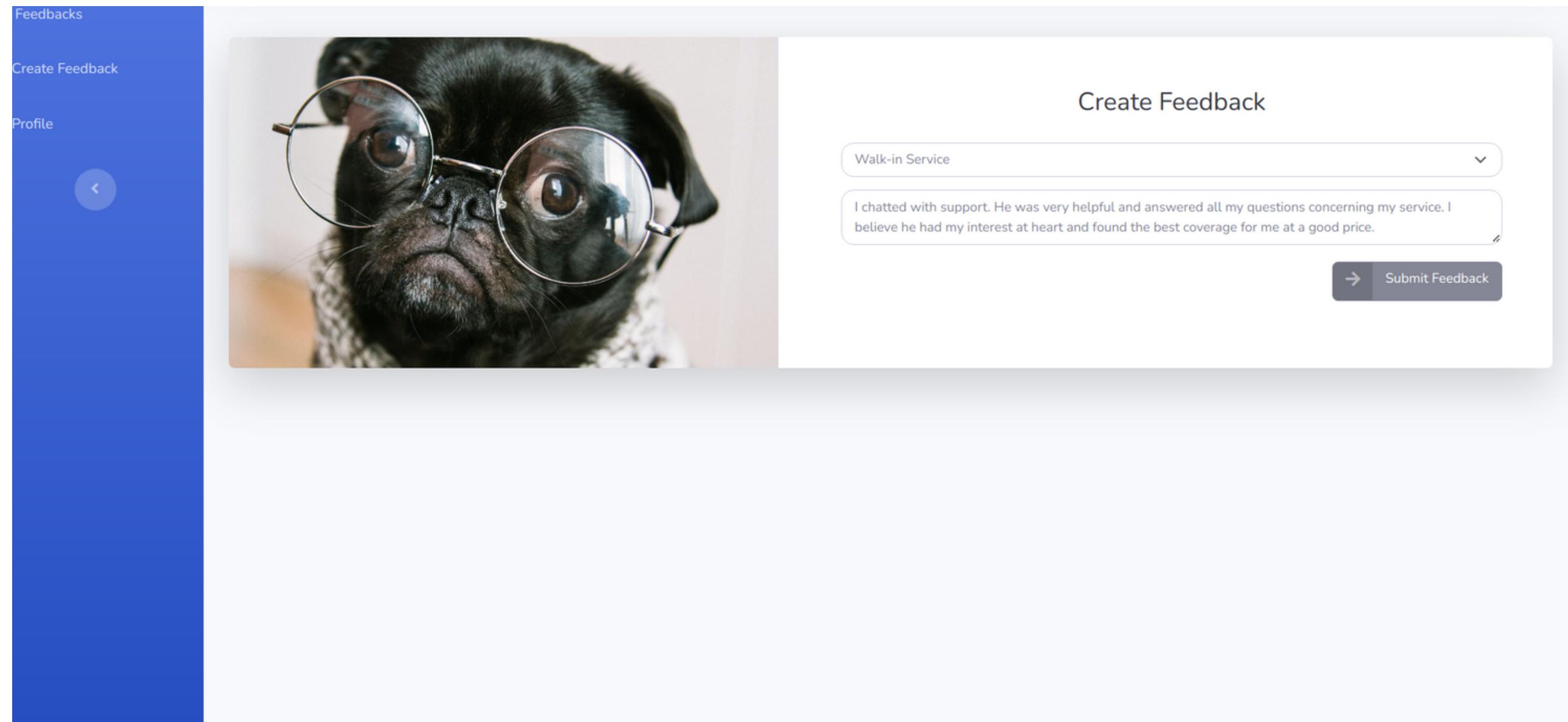
Feedback Description	Service	Created At	Action
A fantastic organisation! Great support from beginning to end of the process. The team are really informed and go the extra mile at every stage. I would recommend them unreservedly.	Walk-in Service	2022-03-31 06:59:29	Delete Update
I chatted with support. He was very helpful and answered all my questions concerning my service. I believe he had my interest at heart and found the best coverage for me at a good price.	Live Chat Service	2022-03-31 07:52:10	Delete Update
Bad phone support service. It was very unfriendly experience.	Phone Service	2022-03-31 07:46:00	Delete Update

Function - A dashboard with the feedback of the respective user

TEST 5

Add Feedback

("/dashboard/user/:username/feedbacks/new")



Function - A form should be rendered that allows the user to add feedbacks

feedback_id	user_id	service_id	description	sentiment	created_at
Filter	Filter	Filter	Filter	Filter	Filter
1 qEumFhSmYD_XLiK0h9EJp	7Mc9i-1Pj58iNJ1HuWkWO	CgNFS4GWeV1UvNB1YsbVI	Amazing service and exceptionally convenient.	0.6333333333333333	2022-04-14 16:29:46

Feedbacks

Feedback Information

Feedback Description

Amazing service and exceptionally convenient.

Service

Walk-in Service

Created At

2022-03-31 06:59:29

 Delete

 Update

Feedback Description

Service

Created At

Function – The feedback is added to the database with the corresponding user ID and service ID

TEST 6

Admin Dashboard ("[/dashboard/admin/:username](#)")

The screenshot shows the Admin Dashboard interface for the "CARBONFEEDBACKS" application. The left sidebar contains navigation links: "Feedbacks", "Create Service", "Services", "Profile", and "Report". The main content area is titled "Feedbacks" and displays a table of feedback information. The table has columns for Name, Sentiment, Feedback Description, Service, and Created At. There are seven rows of data:

Name	Sentiment	Feedback Description	Service	Created At
nikhil	Positive	A fantastic organisation! Great support from beginning to end of the process. The team are really informed and go the extra mile at every stage. I would recommend them unreservedly.	Walk-in Service	2022-03-31 06:59:29
nikhil	Positive	I chatted with support. He was very helpful and answered all my questions concerning my service. I believe he had my interest at heart and found the best coverage for me at a good price.	Live Chat Service	2022-03-31 07:52:10
nikhil	Negative	Bad phone support service. It was very unfriendly experience.	Phone Service	2022-03-31 07:46:00
dushyant	Negative	I had a very bad experience with walk-in service. I had to wait for a long time to get my query resolved.	Walk-in Service	2022-03-31 06:59:29
dushyant	Neutral	The chatbot does not respond. Please improve this functionality.	Chatbot Service	2022-03-31 07:53:36
atik	Neutral	Did not benefit from email service. After multiple emails my problem remain unresolved. Very unsatisfactory.	Email Service	2022-03-31 07:49:49
atik	Neutral	Finally got my problem solved via walk-in.	Walk-in Service	2022-03-31 06:59:29

Function - All feedbacks of the services offered by the admin are shown with their sentiments

TEST 7

Service Dashboard

("/dashboard/admin/:username/services")

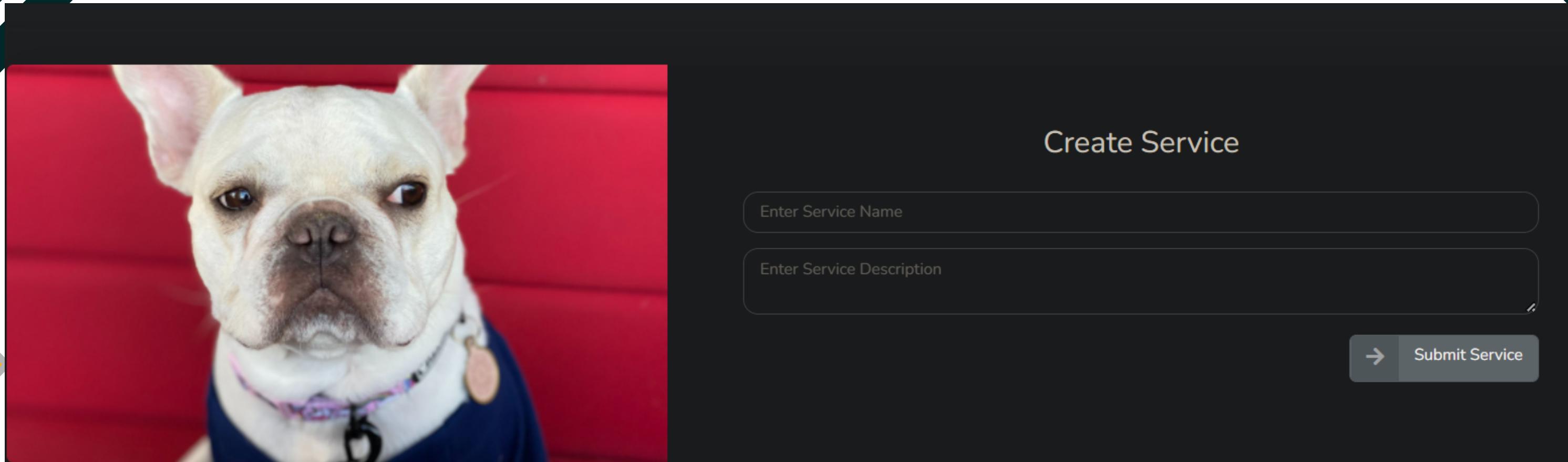
Services		
Service Information		
Name	Description	Created At
Delivery	How fast do you receive your beloved good? Let us know 😊	2022-04-14 16:41:55
		Delete Update
Name	Description	Created At

Function - All services offered by the admin are shown

TEST 8

Add Service

("/dashboard/admin/:username/services/new")



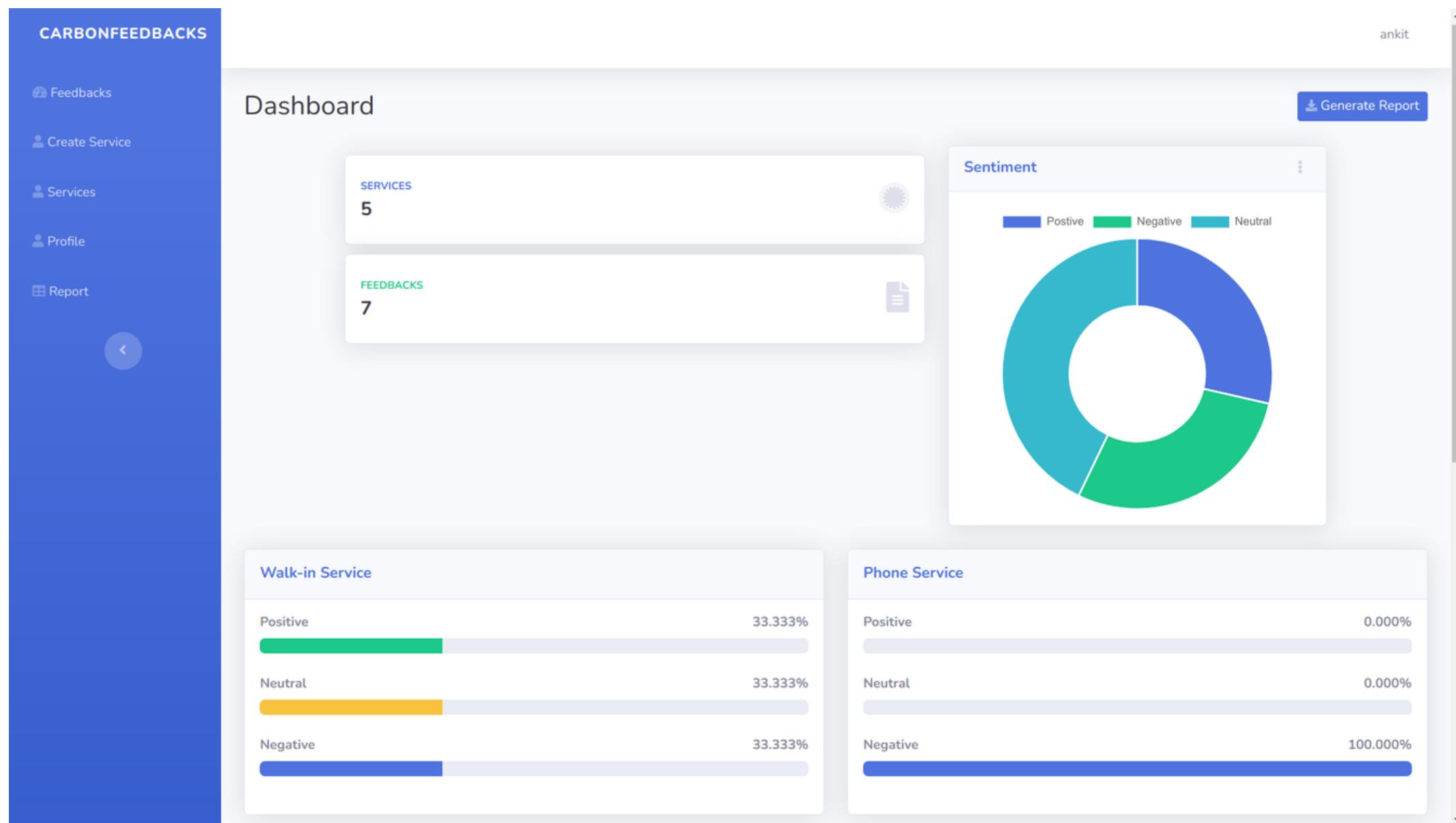
Function - A form should be rendered which allows the admin to add new services

	service_id	service_name	admin_id	service_desc	created_at ▾ ¹
	Filter	Filter	Filter	Filter	Filter
1	GL9IzVrqjQNgEuXWnXLgK	Delivery	xZMFhsgegPnoNf9RjQzYj	How fast do you recieve your beloved good? Let us know 😊	2022-04-14 16:41:55

Function – The new service is added to the database with the corresponding admin ID

TEST 9

Service Report ("/dashboard/admin/:username/report")



Function – A report is shown with a pie chart aggregating all the sentiments and the responses to different services in different blocks

AFTER SYSTEM TESTS, IT WAS CONCLUDED THAT ALL THE REQUIRED FUNCTION REQUIREMENTS WERE MET AND THE SYSTEM BEHAVIOUR IS CONSISTENT WITH THE SRS.

THANK YOU!