

Ashesi Social Network Project
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CS 341_B: Final Project

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Description of Entire System

The Ashesi Social Network works in such a way that a new user to the platform would have to first register for his or her details to be stored in the database. Once successful, the user can log in the next time with their student's ID. Hence, access is granted to the system once the user ID entered exists in the database. The system's security base is such that confirmation of details provided during registration, such as some specific attributes of the student, has to be done before access is granted. If details entered upon logging in does not match details provided during the signing up stage, the system throws an error to the user to prompt him or her for the correct information for the next time. After successfully logging into the system, the user is able to view active users on the student social network platform. The user can then go ahead to create a feed on the platform, which is sent to all active users on the platform as an email in the form of a notification. The user is able to view posts made by other students on the platform and the system has an added functionality of giving the user the luxury to filter posts by making use of the IDs of active students on the platform. With just a single keyword search, the user is able to locate specific posts they would want to view from specific students on the platform. This allows the user to feed their interests, instead of having to go through the entire posts until he or she chances upon what grabs their interest.

Screenshots

Postman Screenshots:

1. Register user.

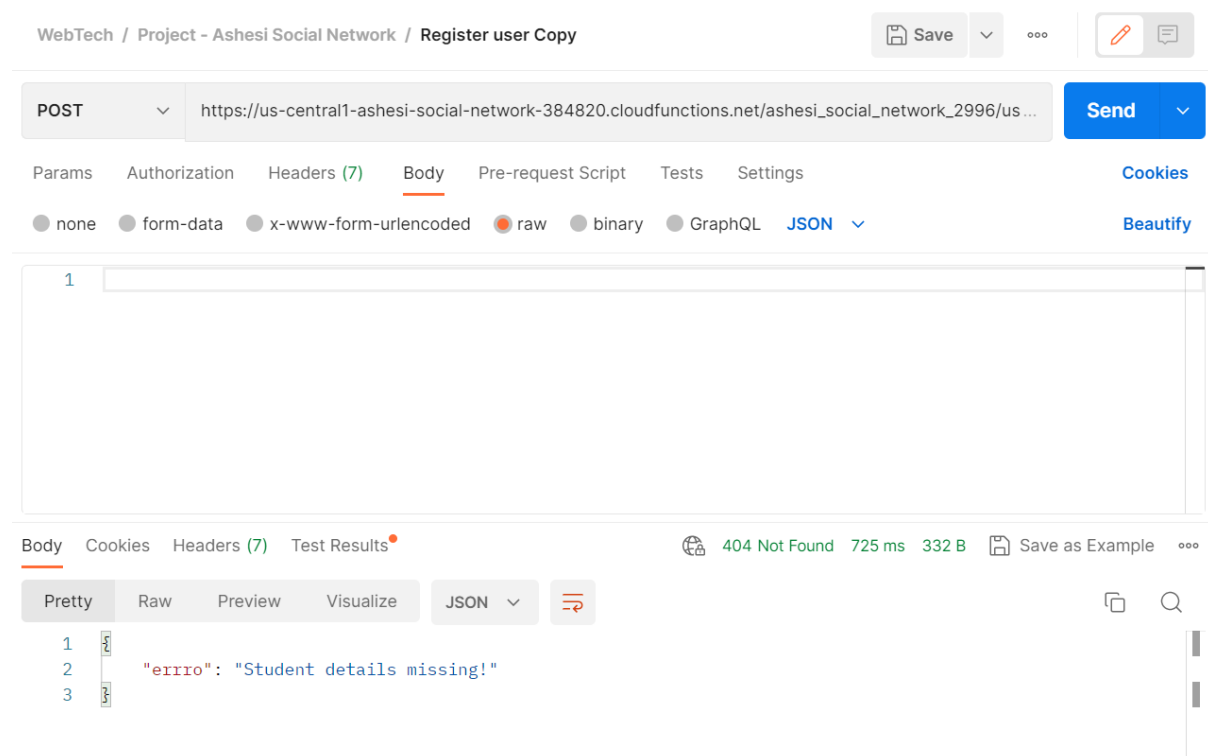


Figure 1 shows POST request when no data is provided.

The screenshot shows a REST client interface for a POST request to `https://us-central1-ashesi-social-network-384820.cloudfunctions.net/ashesi_social_network_2996/us...`. The request body is a valid JSON object with the following fields: `student_id`, `firstname`, `lastname`, `email`, `dob`, `major`, `campus_resident`, `best_food`, `best_movie`, and `malware`. The response status is `400 Bad Request` with a message: "Extra attributes identified. Expected keys are: ['student_id', 'firstname', 'lastname', 'email', 'dob', 'major', 'campus_resident', 'best_food', 'best_movie']".

```
1 {
2   "student_id": "78652024",
3   "firstname": "Nicole",
4   "lastname": "Bruce",
5   "email": "nicole.bruce@ashesi.edu.gh",
6   "dob": "2004/12/09",
7   "major": "CS",
8   "campus_resident": true,
9   "best_food": "Singaporean Noodles",
10  "best_movie": "The Imitation Game",
11  "malware": "secrete nquilibles"
12 }
```

Body Cookies Headers (7) Test Results 400 Bad Request 209 ms 459 B Save as Example

Pretty Raw Preview Visualize JSON

```
1 "Extra attributes identified. Expected keys are: ['student_id', 'firstname', 'lastname', 'email', 'dob', 'major', 'campus_resident', 'best_food', 'best_movie']"
```

Figure 2 shows POST request when extra attributes are specified.

The screenshot shows a REST client interface for a POST request to the same endpoint. The request body is a JSON object with the following fields: `student_id`, `firstname`, `lastname`, `email`, `dob`, `major`, and `campus_resident`. The response status is `400 Bad Request` with a message: "Best_food is required", "Best_movie is required".

```
1 {
2   "student_id": "78652024",
3   "firstname": "Nicole",
4   "lastname": "Bruce",
5   "email": "nicole.bruce@ashesi.edu.gh",
6   "dob": "2004/12/09",
7   "major": "CS",
8   "campus_resident": true
9 }
```

Body Cookies Headers (7) Test Results 400 Bad Request 206 ms 348 B Save as Example

Pretty Raw Preview Visualize JSON

```
1 [
2   "Best_food is required",
3   "Best_movie is required"
4 ]
```

Figure 3 shows POST request when some items are missing.

The screenshot shows a REST client interface for a POST request to `https://us-central1-ashesi-social-network-384820.cloudfunctions.net/ashesi_social_network_2996/us...`. The request body is a JSON object with the following fields: `student_id` ("78652024"), `firstname` ("Nicole"), `lastname` ("Bruce"), `email` ("nicole.bruce@ashesi.edu.gh"), `dob` ("2004/12/09"), `major` ("CS"), `campus_resident` (true), `best_food` ("Singaporean Noodles"), and `best_movie` ("The Imitation Game"). The response status is "400 Bad Request" with a response time of 326 ms and a size of 373 B. The response body, shown in "Pretty" format, contains error messages: `"email": "email already exists!"` and `"student_id": "student_id already exists!"`.

Figure 4 shows POST request when user data is not unique for unique fields.

The screenshot shows a REST client interface for a POST request to `https://us-central1-ashesi-social-network-384820.cloudfunctions.net/ashesi_social_network_2996/us...`. The request body is a JSON object with the following fields: `student_id` ("879017"), `firstname` ("Nicole"), `lastname` ("Bruce"), `email` ("nicole.bruce@ashesi.edu.gh"), `dob` ("2004/12/09"), `major` ("CS"), `campus_resident` (true), `best_food` ("Singaporean Noodles"), and `best_movie` ("The Imitation Game"). The response status is "400 Bad Request" with a response time of 222 ms and a size of 343 B. The response body, shown in "Pretty" format, contains an error message: `"error": "Student id (879017) is not valid!"`.

Figure 5 shows POST request when student id is not valid.

The screenshot shows a REST client interface for a project named "WebTech / Project - Ashesi Social Network / Register user Copy". The request is a POST to the URL `https://us-central1-ashesi-social-network-384820.cloudfunctions.net/ashesi_social_network_2996/us...`. The request body is a JSON object with the following fields: `student_id` (87901994), `firstname` (Nicole), `lastname` (Bruce), `email` (nicole.bruce@ashesi.edu.gh), `dob` (2004/12/09), `major` (CS), `campus_resident` (true), `best_food` (Singaporean Noodles), and `best_movie` (The Imitation Game). The response is a 400 Bad Request with the message: `"error": "Student year group (1994) is invalid!"`. The status bar shows 400 Bad Request, 205 ms, and 347 B.

```
1 {
2   "student_id": "87901994",
3   "firstname": "Nicole",
4   "lastname": "Bruce",
5   "email": "nicole.bruce@ashesi.edu.gh",
6   "dob": "2004/12/09",
7   "major": "CS",
8   "campus_resident": true,
9   "best_food": "Singaporean Noodles",
10  "best_movie": "The Imitation Game"
11 }
```

Body Cookies Headers (7) Test Results 400 Bad Request 205 ms 347 B Save as Example

Pretty Raw Preview Visualize JSON

```
1 {
2   "error": "Student year group (1994) is invalid!"
3 }
```

Figure 6 shows POST request when year group is invalid.

The screenshot shows the same REST client interface. The request body is a JSON object with the following fields: `student_id` (87902023), `firstname` (Nico90le), `lastname` (Bruce), `email` (nicole.bruce@ashesi.edu.gh), `dob` (2004/12/09), `major` (CS), `campus_resident` (true), `best_food` (Singaporean Noodles), and `best_movie` (The Imitation Game). The response is a 400 Bad Request with the message: `"error": "Student's firstname must be a string!"`. The status bar shows 400 Bad Request, 197 ms, and 347 B.

```
1 {
2   "student_id": "87902023",
3   "firstname": "Nico90le",
4   "lastname": "Bruce",
5   "email": "nicole.bruce@ashesi.edu.gh",
6   "dob": "2004/12/09",
7   "major": "CS",
8   "campus_resident": true,
9   "best_food": "Singaporean Noodles",
10  "best_movie": "The Imitation Game"
11 }
```

Body Cookies Headers (7) Test Results 400 Bad Request 197 ms 347 B Save as Example

Pretty Raw Preview Visualize JSON

```
1 {
2   "error": "Student's firstname must be a string!"
3 }
```

Figure 7 shows POST request when firstname is invalid.

The screenshot shows a REST client interface for a project named "WebTech / Project - Ashesi Social Network / Register user Copy". The request is a POST to the URL `https://us-central1-ashesi-social-network-384820.cloudfunctions.net/ashesi_social_network_2996/us...`. The request body is a JSON object with the following fields: `student_id` (87902023), `firstname` (Nicole), `lastname` (Bruce), `email` (nicole.bruce@ashesi.edu.gh), `dob` (2004/12/09), `major` (CS), `campus_resident` (true), `best_food` (Singaporean Noodles), and `best_movie` (The Imitation Game). The response status is "400 Bad Request" with a message: `"error": "Student's email is not a valid Ashesi email!"`.

```
1 {
2   "student_id": "87902023",
3   "firstname": "Nicole",
4   "lastname": "Bruce",
5   "email": "nicole.bruce@ashesi.edu.gh",
6   "dob": "2004/12/09",
7   "major": "CS",
8   "campus_resident": true,
9   "best_food": "Singaporean Noodles",
10  "best_movie": "The Imitation Game"
11 }
```

```
1 {
2   "error": "Student's email is not a valid Ashesi email!"
3 }
```

Figure 8 shows POST request when email is invalid.

The screenshot shows the same REST client interface as Figure 8, but with a different request body. The `major` field is now "Law". The response status is "400 Bad Request" with a message: `"error": "Law is not a valid Ashesi major!"`.

```
1 {
2   "student_id": "87902023",
3   "firstname": "Nicole",
4   "lastname": "Bruce",
5   "email": "nicole.bruce@ashesi.edu.gh",
6   "dob": "2004/12/09",
7   "major": "Law",
8   "campus_resident": true,
9   "best_food": "Singaporean Noodles",
10  "best_movie": "The Imitation Game"
11 }
```

```
1 {
2   "error": "Law is not a valid Ashesi major!"
3 }
```

Figure 9 shows POST request when major is not valid.

WebTech / Project - Ashesi Social Network / Register user Copy

POST https://us-central1-ashesi-social-network-384820.cloudfunctions.net/ashesi_social_network_2996/us... Send

Params Authorization Headers (8) **Body** Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded **raw** binary GraphQL JSON Beautify

```

1  {
2    "student_id": "87902023",
3    "firstname": "Elmir",
4    "lastname": "Mohammed",
5    "email": "elmir.mohammed@ashesi.edu.gh",
6    "dob": "2004/12/09",
7    "major": "EE",
8    "campus_resident": true,
9    "best_food": "Singaporean Noodles",
10   "best_movie": "The Imitation Game"
11 }

```

Body Cookies Headers (7) Test Results 201 Created 624 ms 561 B Save as Example

Pretty Raw Preview Visualize JSON Beautify

```

1  {
2    "best_food": "Singaporean Noodles",
3    "best_movie": "The Imitation Game",
4    "campus_resident": true,
5    "dob": "2004/12/09",
6    "email": "elmir.mohammed@ashesi.edu.gh",
7    "favourite_posts": [],
8    "firstname": "Elmir",
9    "lastname": "Mohammed",
10   "major": "EE",
11   "read_posts": [],
12   "student_id": "87902023"
13 }

```

Figure 10 shows POST request when all details are valid.

2. Edit a User's Profile

WebTech / Project - Ashesi Social Network / Edit User Profile Copy

PATCH https://us-central1-ashesi-social-network-384820.cloudfunctions.net/ashesi_social_network_2996/us... Send

Params Authorization Headers (8) **Body** Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded **raw** binary GraphQL JSON Beautify

```

1  {
2    "student_id": "7897489"
3  }

```

Body Cookies Headers (7) Test Results 403 Forbidden 512 ms 337 B Save as Example

Pretty Raw Preview Visualize JSON Beautify

```

1  {
2    "error": "Student id cannot be changed!"
3  }

```

Figure 11 shows a PATCH request when a readonly field is specified.

The screenshot shows a REST client interface for a project named "WebTech / Project - Ashesi Social Network / Edit User Profile Copy". The request method is "PATCH" and the URL is "https://us-central1-ashesi-social-network-384820.cloudfunctions.net/ashesi_social_network_2996/us...". The "Body" tab is selected, showing a JSON payload:

```
{ 1: { 2: "...email": "test@ashesi.edu.gh" 3: } }
```

. The response status is "403 Forbidden" with a response time of "210 ms" and a size of "332 B". The response body is displayed in the "Body" tab, showing a JSON error:

```
{ 1: { 2: "error": "Email cannot be changed!" 3: } }
```

. The "Test Results" tab is also visible.

Figure 12 another PATCH request to update a readonly field.

The screenshot shows the same REST client interface. The request method is "PATCH" and the URL is "https://us-central1-ashesi-social-network-384820.cloudfunctions.net/ashesi_social_network_2996/us...". The "Body" tab is selected, showing a JSON payload:

```
{ 1: { 2: "...best_movie": "The Obvious" 3: } }
```

. The response status is "200 OK" with a response time of "329 ms" and a size of "541 B". The response body is displayed in the "Body" tab, showing a JSON object:

```
{ 1: { 2: "best_food": "Jambalaya", 3: "best_movie": "The Obvious", 4: "campus_resident": false, 5: "dob": "1997/10/23", 6: "email": "projectile.webgeeks@gmail.com", 7: "favourite_posts": [], 8: "firstname": "Morgan", 9: "lastname": "Sarpong", 10: "major": "CS", 11: "read_posts": [], 12: "student_id": "47832026" 13: } }
```

. The "Test Results" tab is also visible.

Figure 13 shows a PATCH request when request body is valid.

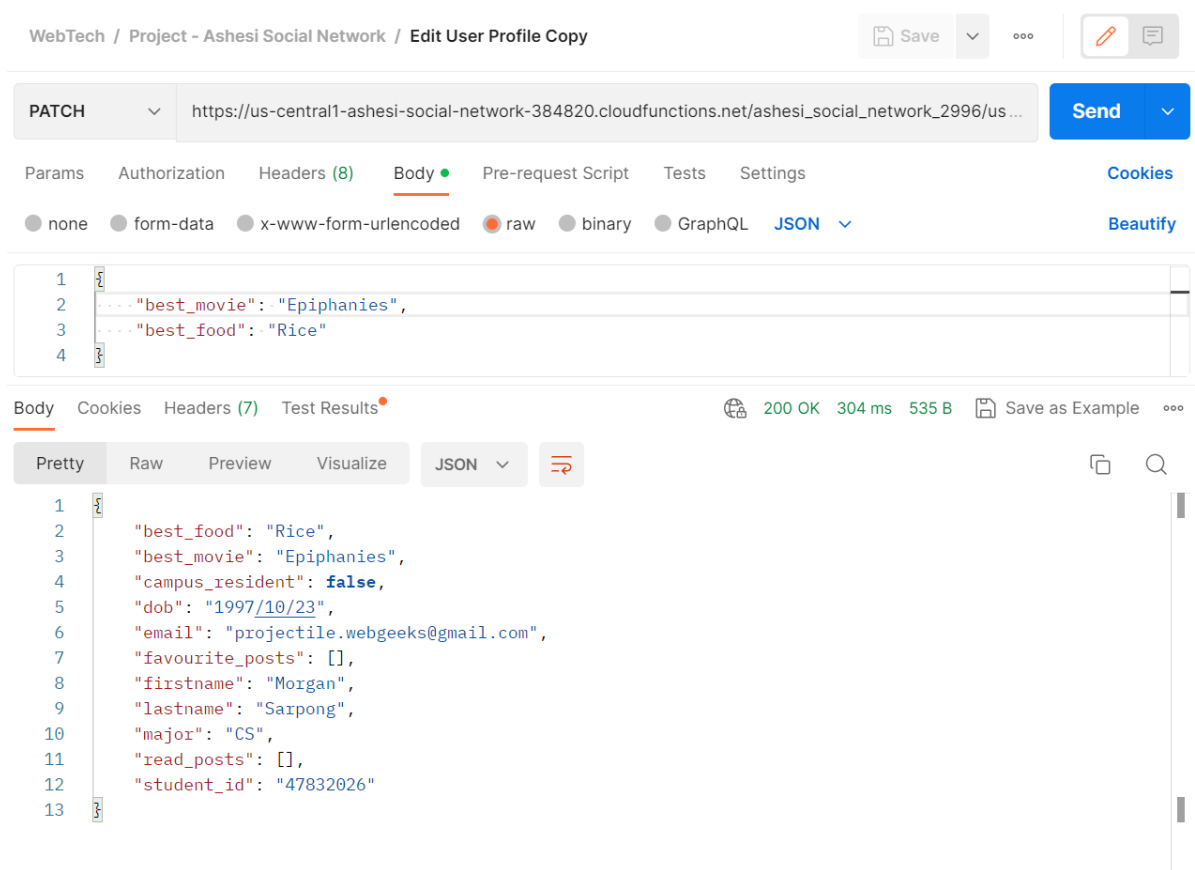


Figure 14 shows a PATCH request when multiple attributes are specified.

3. Get student works like a filter system.

WebTech / Project - Ashesi Social Network / Get All Users Copy

Save ...

GET https://us-central1-ashesi-social-network-384820.cloudfunctions.net/ashesi_social_network_2996/us... Send

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params

Key	Value	Description	...	Bulk Edit
Key	Value	Description		

Body Cookies Headers (7) Test Results

200 OK 5.67 s 2.46 KB Save as Example ...

Pretty Raw Preview Visualize JSON

```

1  [
2    {
3      "best_food": "Banku",
4      "best_movie": "Wakanda Forever",
5      "campus_resident": false,
6      "dob": "2000/04/02",
7      "email": "thomas.quarshie@ashesi.edu.gh",
8      "favourite_posts": [],
9      "firstname": "Thomas",
10     "lastname": "Quarshie",
11     "major": "CS",
12     "read_posts": [],
13     "student_id": "12342025"
14   },
15   {
16     "best_food": "Rice",
17     "best_movie": "Naruto",
18     "campus_resident": true,
19     "dob": "2000/04/02",
20     "email": "richard.quayson@ashesi.edu.gh",
21     "favourite_posts": [
22       "BG3NKZatn024SJR1L04j"
23     ],
24     "firstname": "Richard",
25     "lastname": "Quayson",
26     "major": "CS",
27     "read_posts": [],
28     "student_id": "29962024"
29   },
30   {
31     "best_food": "Singaporean Noodles",
32     "best_movie": "The Imitation Game",
33     "campus_resident": true,
34     "dob": "2023/12/09",
35     "email": "bright.antwi@ashesi.edu.gh",
36     "favourite_posts": [],
37     "firstname": "George",
38     "lastname": "Mensah",
39     "major": "CE",
40     "read_posts": [],
41     "student_id": "45672023"
42   },
43   {
44     "best_food": "Rice",
45     "best_movie": "Epiphanies",
46     "campus_resident": false,
47     "dob": "1997/10/23",
48     "email": "projectile.webgeeks@gmail.com",
49     "favourite_posts": [],
50     "firstname": "Morgan",
51     "lastname": "Saipong",
52     "major": "CS",

```

Figure 15 shows a GET request to retrieve all users.

WebTech / Project - Ashesi Social Network / Get All Users Copy

GET https://us-central1-ashesi-social-network-384820.cloudfunctions.net/ashesi_social_network_2996/users/profile/view/?student_id=29962024 Send

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params

	Key	Value	Description	...	Bulk Edit
<input checked="" type="checkbox"/>	student_id	29962024			
	Key	Value	Description		

Body Cookies Headers (7) Test Results 200 OK 254 ms 555 B Save as Example

Pretty Raw Preview Visualize JSON

```
1 [
2   {
3     "best_food": "Rice",
4     "best_movie": "Naruto",
5     "campus_resident": true,
6     "dob": "2000/04/02",
7     "email": "richard.quayson@ashesi.edu.gh",
8     "favourite_posts": [
9       "BG3NKZatn0245JR1L04j"
10    ],
11     "firstname": "Richard",
12     "lastname": "Quayson",
13     "major": "CS",
14     "read_posts": [],
15     "student_id": "29962024"
16   }
17 ]
```

Figure 16 get by student_id.

WebTech / Project - Ashesi Social Network / Get All Users Copy

GET https://us-central1-ashesi-social-network-384820.cloudfunctions.net/ashesi_social_network_2996/users/profile/view/?email=bright.antwiS@ashesi.edu.gh Send

Params Authc

Query Params

	Key	Value	Description	...	Bulk Edit
<input checked="" type="checkbox"/>	email	bright.antwiS@ashesi.edu.gh			
	Key	Value	Description		

Body Cookies Headers (7) Test Results 200 OK 286 ms 555 B Save as Example

Pretty Raw Preview Visualize JSON

```
1 [
2   {
3     "best_food": "Singaporean Noodles",
4     "best_movie": "The Imitation Game",
5     "campus_resident": true,
6     "dob": "2023/12/09",
7     "email": "bright.antwi@ashesi.edu.gh",
8     "favourite_posts": [],
9     "firstname": "George",
10    "lastname": "Mensah",
11    "major": "CE",
12    "read_posts": [],
13    "student_id": "45672023"
14  }
15 ]
```

Figure 17 get by email.

WebTech / Project - Ashesi Social Network / Get All Users Copy

GET

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params

	Key	Value	Description	...	Bulk Edit
<input checked="" type="checkbox"/>	lastname	quay			
	Key	Value	Description		

Body Cookies Headers (7) Test Results 200 OK 260 ms 786 B Save as Example

Pretty Raw Preview Visualize JSON

```
1 [
2   {
3     "best_food": "Rice",
4     "best_movie": "Naruto",
5     "campus_resident": true,
6     "dob": "2000/04/02",
7     "email": "richard.quayson@ashesi.edu.gh",
8     "favourite_posts": [
9       "BG3NKZatn024SJRL04j"
10    ],
11     "firstname": "Richard",
12     "lastname": "Quayson",
13     "major": "CS",
14     "read_posts": [],
15     "student_id": "29962024"
16  },
17  {
18     "best_food": "Fufu",
19     "best_movie": "Naruto",
20     "campus_resident": true,
21     "dob": "2000/04/02",
22     "email": "team3.cohortf@gmail.com",
23     "favourite_posts": [],
24     "firstname": "Bright",
25     "lastname": "Quayson",
26     "major": "CE",
27     "read_posts": [],
28     "student_id": "55772024"
29  }
30 ]
```

Figure 18 get by lastname.

WebTech / Project - Ashesi Social Network / Get All Users Copy

Save

GET Send

Params • Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params

	Key	Value	Description	...	Bulk Edit
<input checked="" type="checkbox"/>	best_food	rice			

Body Cookies Headers (7) Test Results

200 OK 251 ms 1002 B Save as Example

Pretty Raw Preview Visualize JSON

```

1  [
2    {
3      "best_food": "Rice",
4      "best_movie": "Naruto",
5      "campus_resident": true,
6      "dob": "2000/04/02",
7      "email": "richard.quayson@ashesi.edu.gh",
8      "favourite_posts": [
9        "BG3NKZatn024SJR1L04j"
10     ],
11     "firstname": "Richard",
12     "lastname": "Quayson",
13     "major": "CS",
14     "read_posts": [],
15     "student_id": "29962024"
16   },
17   {
18     "best_food": "Rice",
19     "best_movie": "Epiphanies",
20     "campus_resident": false,
21     "dob": "1997/10/23",
22     "email": "projectile.webgeeks@gmail.com",
23     "favourite_posts": [],
24     "firstname": "Morgan",
25     "lastname": "Sarpong",
26     "major": "CS",
27     "read_posts": [],
28     "student_id": "47832026"
29   },
30   {
31     "best_food": "Rice",
32     "best_movie": "Rice",
33     "campus_resident": true,
34     "dob": "2023-04-25",
35     "email": "elikem.bansah@ashesi.edu.gh",
36     "firstname": "Elikem",
37     "lastname": "Bansah",
38     "major": "BA",
39     "student_id": "89892026"
40   }
41 ]

```

Figure 19 get by best food.

WebTech / Project - Ashesi Social Network / Get All Users Copy

GET https://us-central1-ashesi-social-network-384820.cloudfunctions.net/ashesi_social_network_2996/users/profile/view?best_food=rice&campus_resident=false Send

Params Auth

Key	Value	Description
<input checked="" type="checkbox"/> best_food	rice	
<input checked="" type="checkbox"/> campus_resident	false	
Key	Value	Description

Body Cookies Headers (7) Test Results 200 OK 294 ms 537 B Save as Example

Pretty Raw Preview Visualize JSON Beautify

```

1  {
2    "best_food": "Rice",
3    "best_movie": "Epiphanies",
4    "campus_resident": false,
5    "dob": "1997/10/23",
6    "email": "projectile.webgeeks@gmail.com",
7    "favourite_posts": [],
8    "firstname": "Morgan",
9    "lastname": "Saipong",
10   "major": "CS",
11   "read_posts": [],
12   "student_id": "47832026"
13 }
14
15

```

Figure 20 get user by multiple attributes.

4. Create Post

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies Beautify

none form-data x-www-form-urlencoded raw binary GraphQL JSON

```

1  {
2    "email": "bright.antwi@ashesi.edu.gh",
3    "description": "Testing deployed backend"
4  }

```

Body Cookies Headers (5) Test Results 200 OK 6.61 s 360 B Save as Example

Pretty Raw Preview Visualize JSON Beautify

```

1  {
2    "date_created": "25/04/2023 23:53:42",
3    "date_updated": "25/04/2023 23:53:42",
4    "description": "Testing deployed backend",
5    "email": "bright.antwi@ashesi.edu.gh",
6    "post_image": null
7  }

```

Figure 21 creating a POST.

5. Feed Page

	Key	Value	Description	...	Bulk Edit
<input checked="" type="checkbox"/>	value	thomas.quarshie@ashesi.edu.gh			
	Key	Value	Description		

Body Cookies Headers (5) Test Results

200 OK 29.70 s 391 B Save as Example

Pretty Raw Preview Visualize JSON

```
1 [
2   {
3     "date_created": "13/04/2023 19:44:40",
4     "date_updated": "13/04/2023 19:44:40",
5     "description": "Done testing, time to play around!",
6     "email": "thomas.quarshie@ashesi.edu.gh",
7     "post_image": null
8   }
9 ]
```

Figure 22 get feed by email of user.

Params ● Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params

	Key	Value	Description	...	Bulk Edit
<input checked="" type="checkbox"/>	value	29962024			
	Key	Value	Description		

Body Cookies Headers (5) Test Results ●

200 OK 1395 ms 4.55 KB Save as Example ...

Pretty Raw Preview Visualize JSON ↕

```
1 [
2   {
3     "date_created": "25/04/2023 23:31:19",
4     "date_updated": "25/04/2023 23:31:19",
5     "description": "Taking project screenshots.",
6     "email": "richard.quayson@ashesi.edu.gh",
7     "post_image": null
8   },
9   {
10    "date_created": "25/04/2023 12:41:37",
11    "date_updated": "25/04/2023 12:41:37",
12    "description": "Testing post sending again!",
13    "email": "richard.quayson@ashesi.edu.gh",
14    "post_image": null
15  },
16  {
17    "date_created": "25/04/2023 12:40:43",
18    "date_updated": "25/04/2023 12:40:43",
19    "description": "Testing post from flutter for the first time 2.0!",
20    "email": "richard.quayson@ashesi.edu.gh",
21    "post_image": null
22  },
23  {
24    "date_created": "25/04/2023 12:40:43",
25    "date_updated": "25/04/2023 12:40:43",
26    "description": "Testing post from flutter for the first time 2.0!",
27    "email": "richard.quayson@ashesi.edu.gh",
28    "post_image": null
29  },
30  {
31    "date_created": "25/04/2023 12:40:43",
32    "date_updated": "25/04/2023 12:40:43",
33    "description": "Testing post from flutter for the first time 2.0!",
34    "email": "richard.quayson@ashesi.edu.gh",
35    "post_image": null
36  },
37  {
38    "date_created": "25/04/2023 12:40:43",
39    "date_updated": "25/04/2023 12:40:43",
40    "description": "Testing post from flutter for the first time 2.0!",
41    "email": "richard.quayson@ashesi.edu.gh",
42    "post_image": null
43  },
44  {
45    "date_created": "25/04/2023 12:40:43",
46    "date_updated": "25/04/2023 12:40:43",
47    "description": "Testing post from flutter for the first time 2.0!",
48    "email": "richard.quayson@ashesi.edu.gh",
49    "post_image": null
50  }
51 ]
```

Figure 23 get feed by user's student_id.

Params • Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params

	Key	Value	Description	...	Bulk Edit
<input checked="" type="checkbox"/>	value	project			
	Key	Value	Description		

Body Cookies Headers (5) Test Results •

200 OK 1009 ms 818 B Save as Example

Pretty Raw Preview Visualize JSON

```
1 [
2   {
3     "date_created": "25/04/2023 23:31:19",
4     "date_updated": "25/04/2023 23:31:19",
5     "description": "Taking project screenshots.",
6     "email": "richard.quayson@ashesi.edu.gh",
7     "post_image": null
8   },
9   {
10    "date_created": "19/04/2023 14:52:16",
11    "date_updated": "19/04/2023 14:52:16",
12    "description": "Final project demo is today 2.0!",
13    "email": "richard.quayson@ashesi.edu.gh",
14    "post_image": null
15  },
16  {
17    "date_created": "19/04/2023 14:51:31",
18    "date_updated": "19/04/2023 14:51:31",
19    "description": "Final project demo is today!",
20    "email": "richard.quayson@ashesi.edu.gh",
21    "post_image": null
22  }
23 ]
```

Figure 24 get feed by content in it.

Integrated Flutter screenshots:

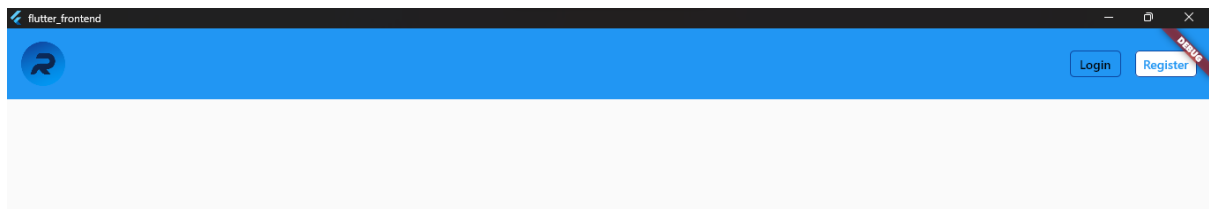
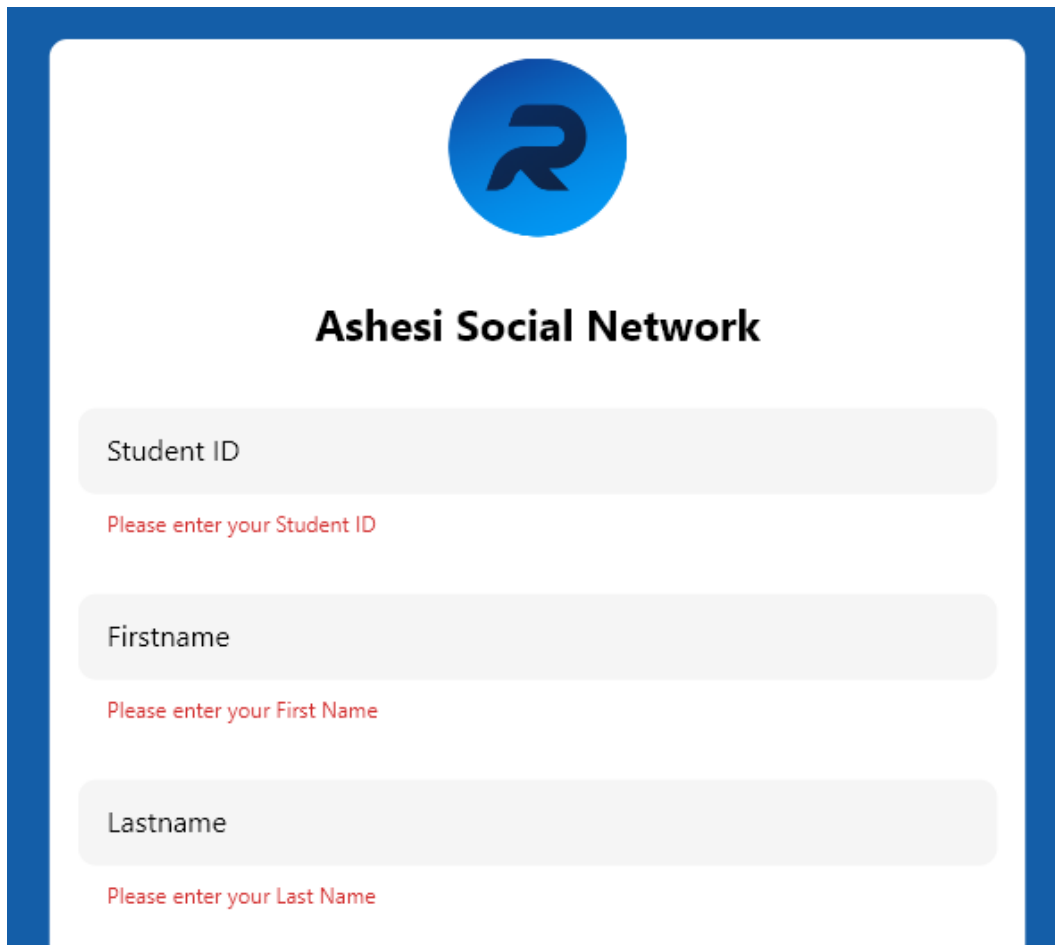


Figure 25 shows the home page from where a user can login or register another user.

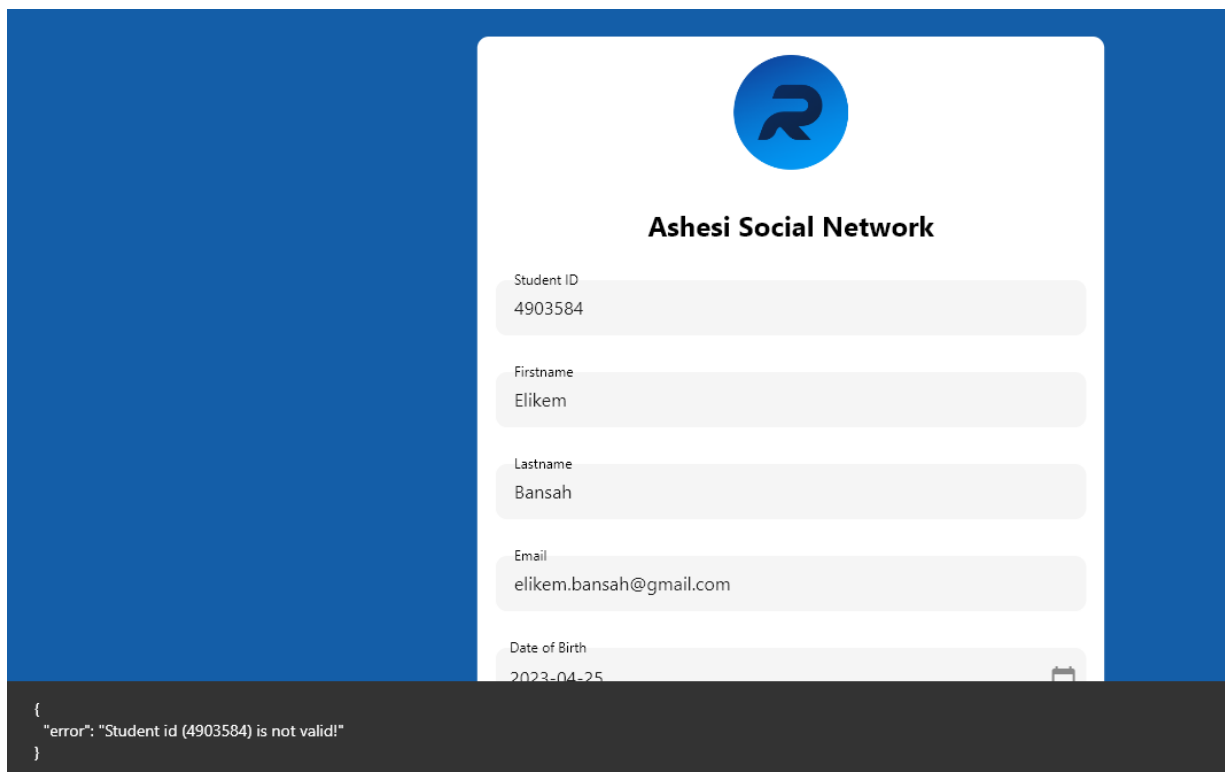
A screenshot of a registration form titled 'Ashesi Social Network'. The form is centered on a white background with a blue border. At the top of the form is a circular logo with a stylized 'R'. Below the logo, the title 'Ashesi Social Network' is displayed in bold. The form contains several input fields: 'Student ID', 'Firstname', 'Lastname', 'Email', 'Date of Birth' (with a calendar icon and the date '2023-04-25'), and 'Major'. The background of the entire page is a solid blue color.

Figure 26 shows register page screen.



The image shows a login form for 'Ashesi Social Network'. At the top is a blue circular logo with a white stylized 'R'. Below the logo is the title 'Ashesi Social Network'. The form consists of three input fields: 'Student ID', 'Firstname', and 'Lastname'. Each field is followed by a red error message: 'Please enter your Student ID', 'Please enter your First Name', and 'Please enter your Last Name' respectively. The form is set against a white background with a blue border.

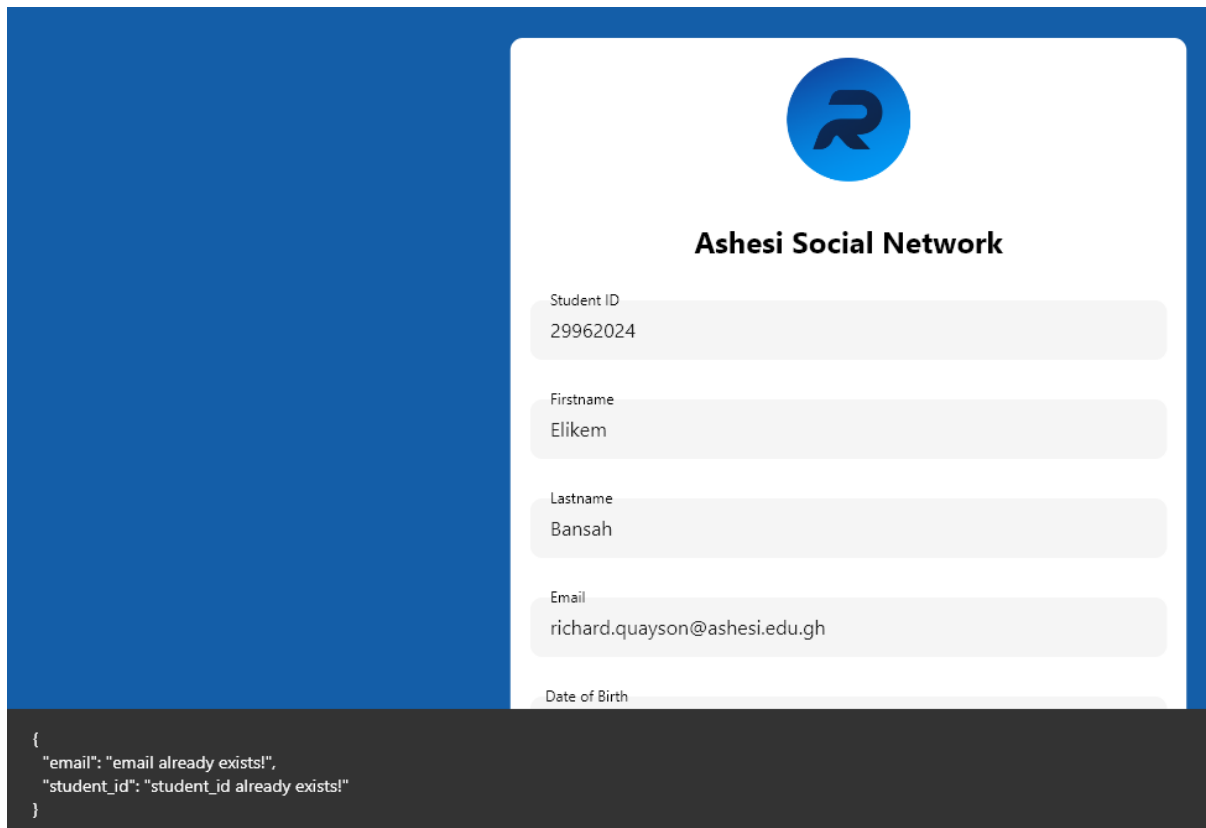
Figure 27 shows basic null input validation.



The image shows the same login form as Figure 27, but with additional fields and a flash message. The fields are: 'Student ID' (4903584), 'Firstname' (Elikem), 'Lastname' (Bansah), 'Email' (elikem.bansah@gmail.com), and 'Date of Birth' (2023-04-25). A dark grey flash message box at the bottom contains the following JSON:

```
{
  "error": "Student id (4903584) is not valid!"
}
```

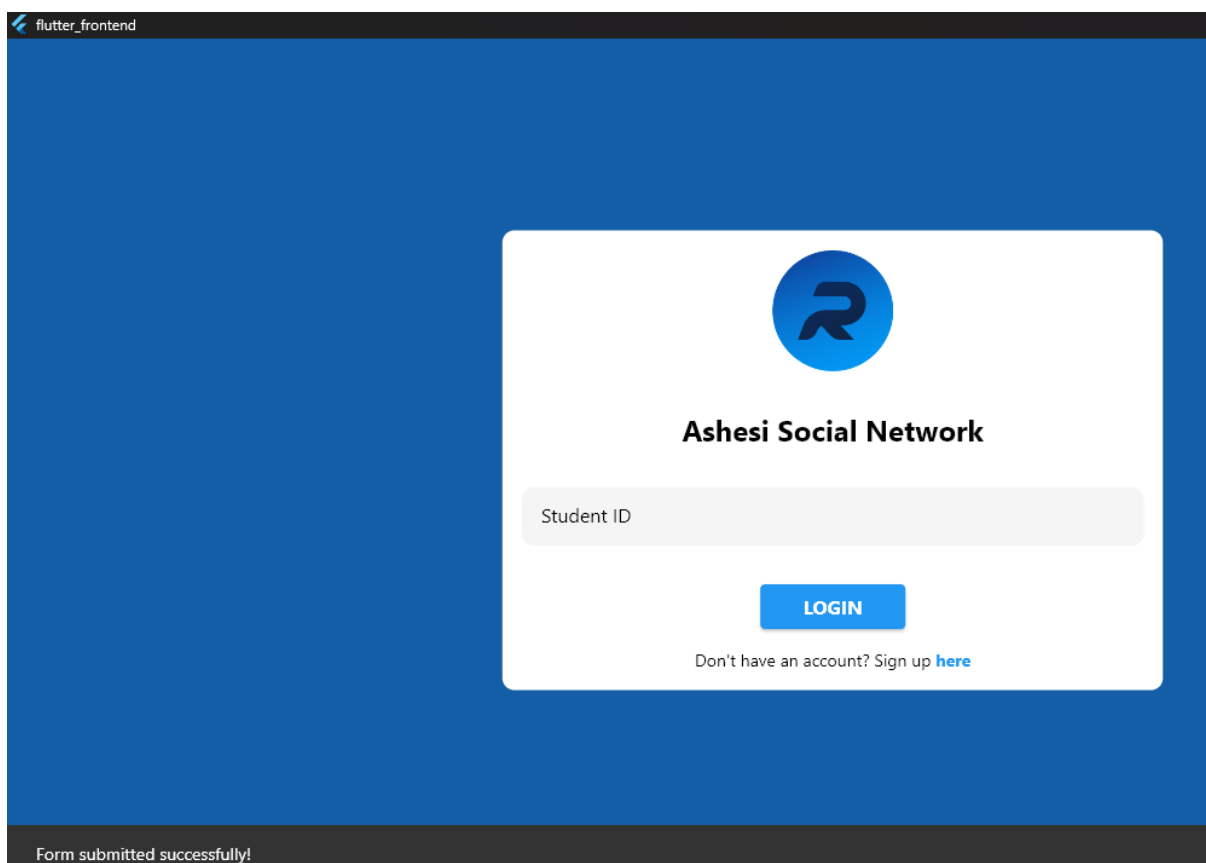
Figure 28 flash messages on error encountered at backend.



The screenshot shows the registration form for Ashesi Social Network. The form fields are: Student ID (29962024), Firstname (Elikem), Lastname (Bansah), Email (richard.quayson@ashesi.edu.gh), and Date of Birth. A dark grey bar at the bottom displays the following JSON error messages:

```
{
  "email": "email already exists!",
  "student_id": "student_id already exists!"
}
```

Figure 29 more flash messages. Essentially, all backend validation error messages are flashed to the user.



The screenshot shows the login page for Ashesi Social Network. The form has a single field for Student ID. Below the field is a blue button labeled "LOGIN". At the bottom of the form, there is a link: "Don't have an account? Sign up [here](#)". A dark grey bar at the bottom of the page displays the message: "Form submitted successfully!".

Figure 30 shows redirect to login page after user details have been inserted successfully.

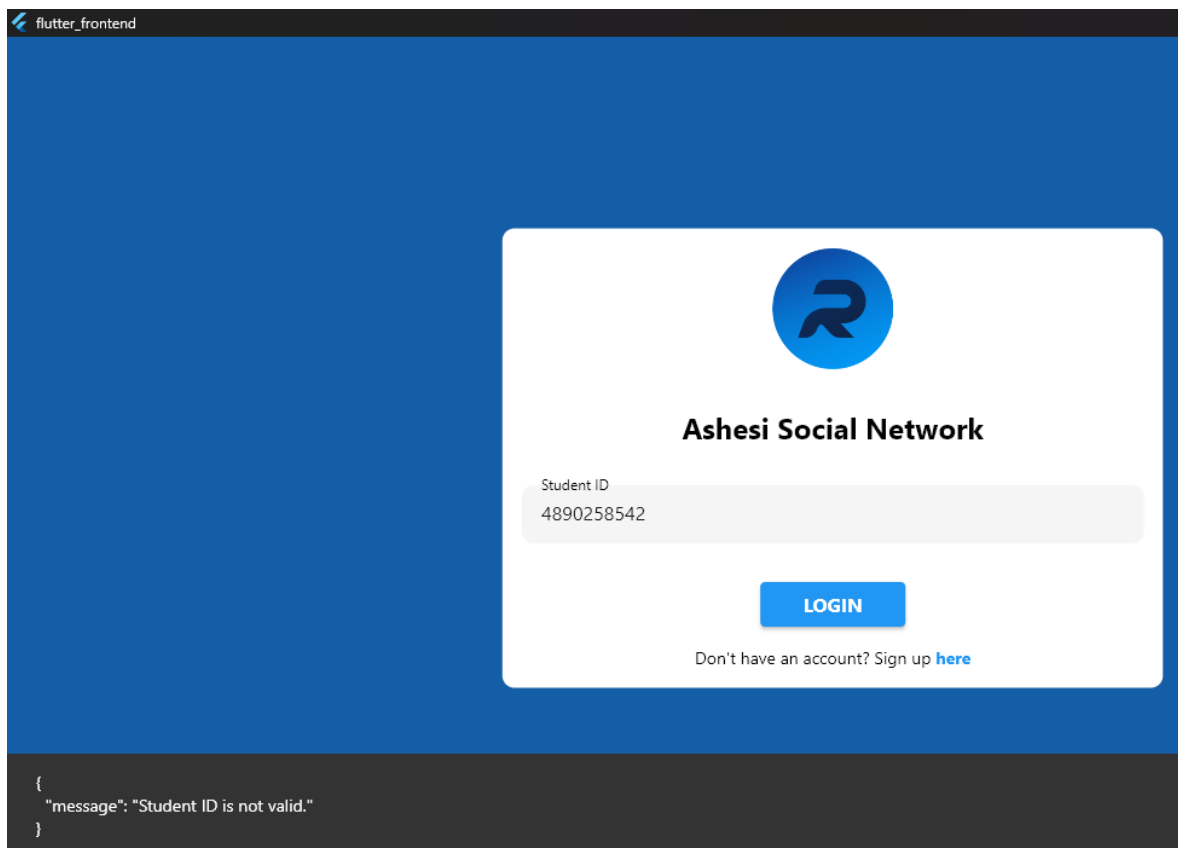


Figure 31 login when student id is invalid.

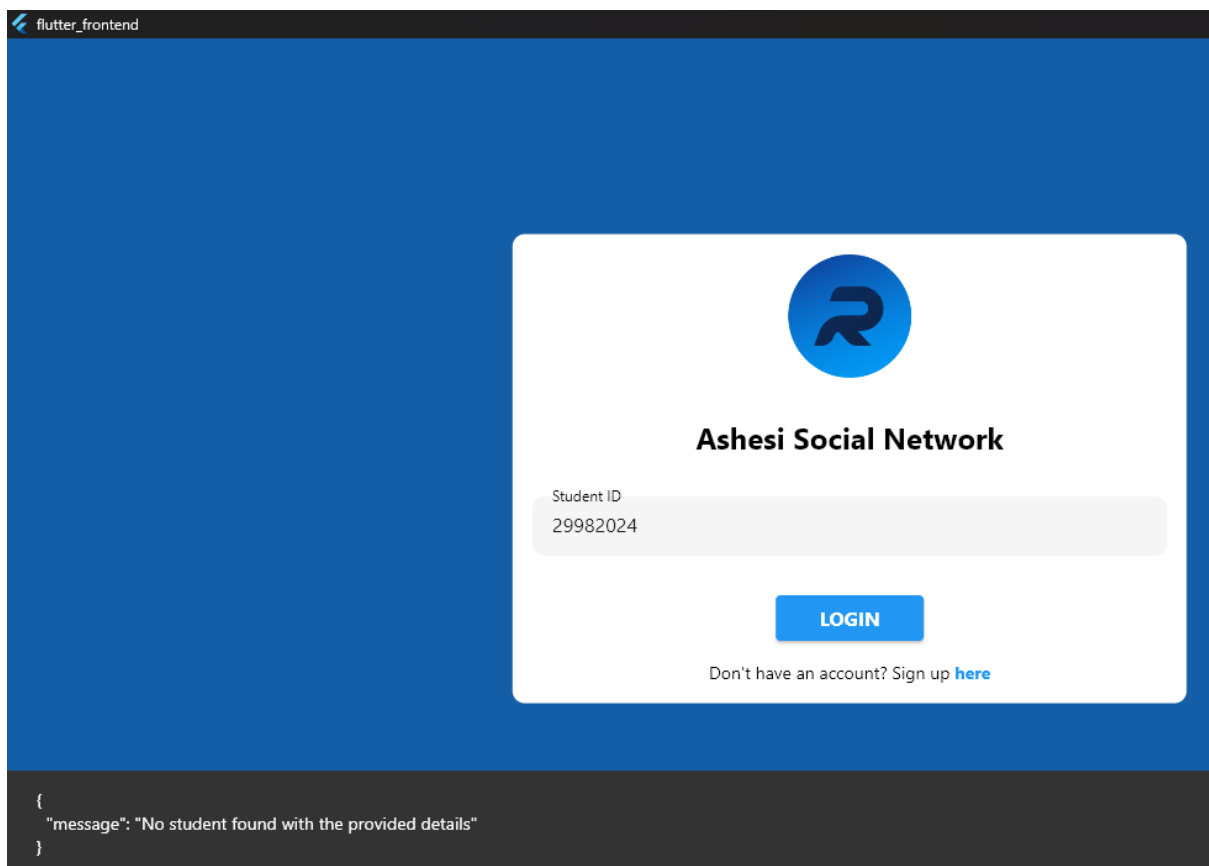


Figure 32 login when user has not been registered.

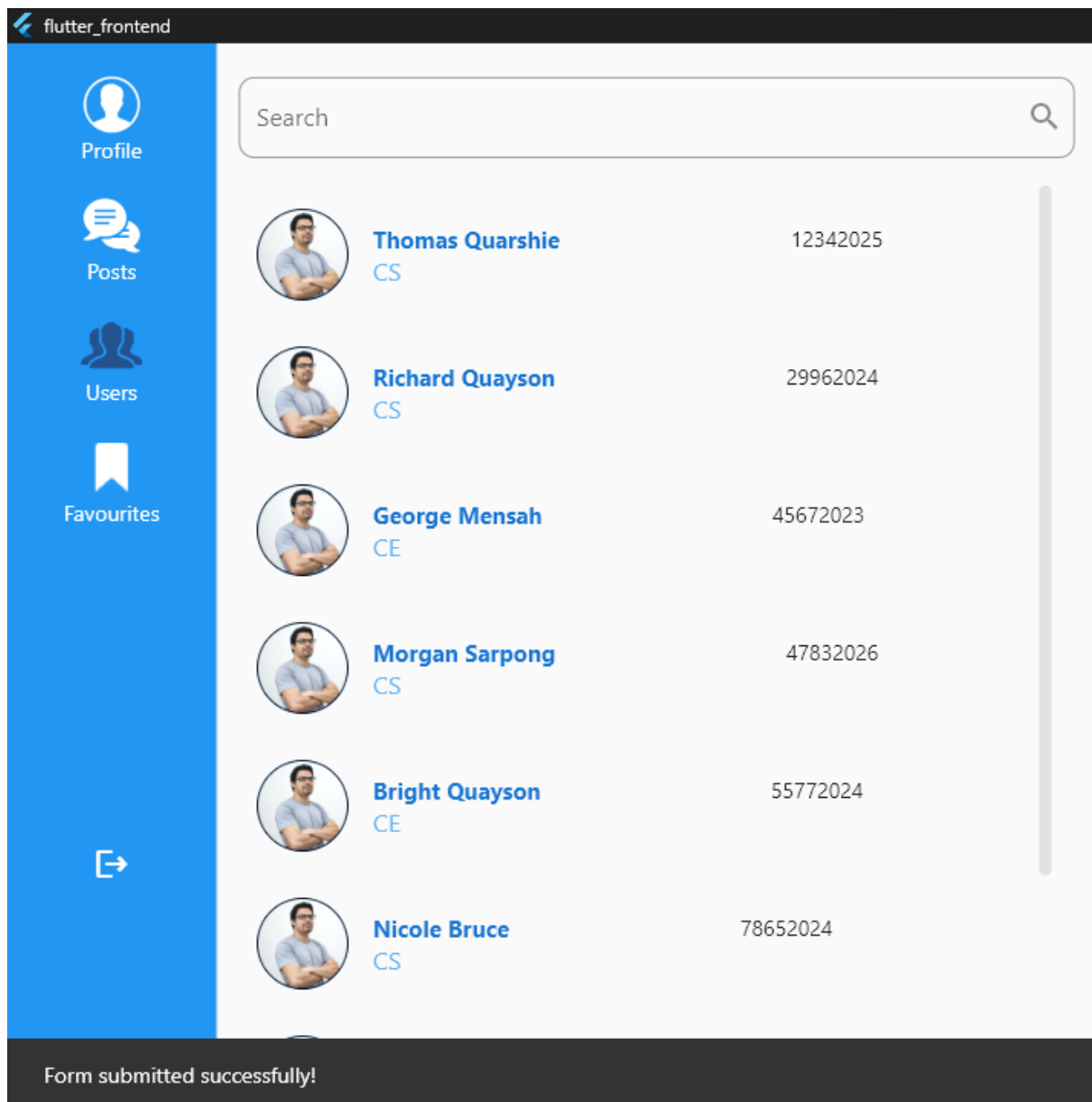


Figure 33 if user has been registered, it redirects to all users page.

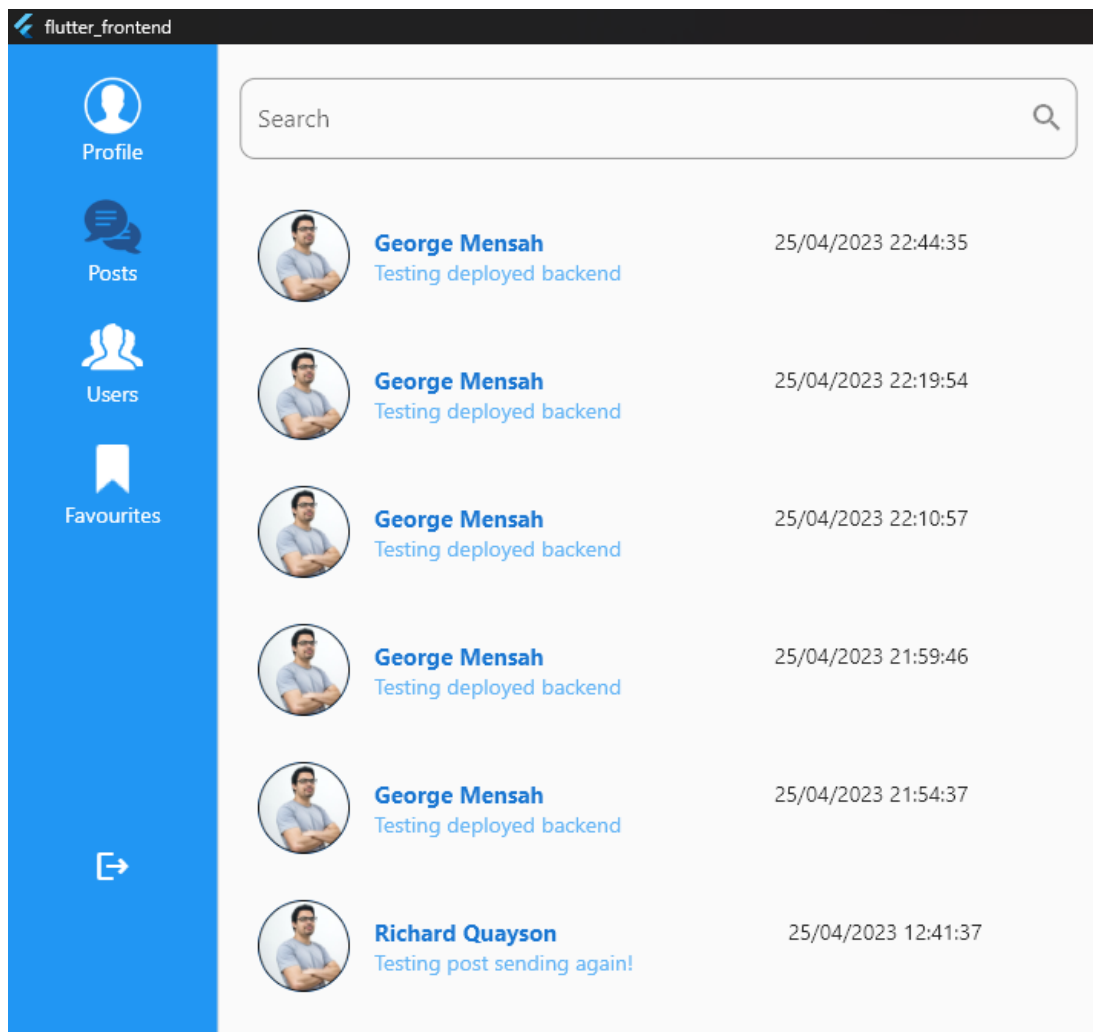


Figure 34 feed page showing all posts made by users in descending order.

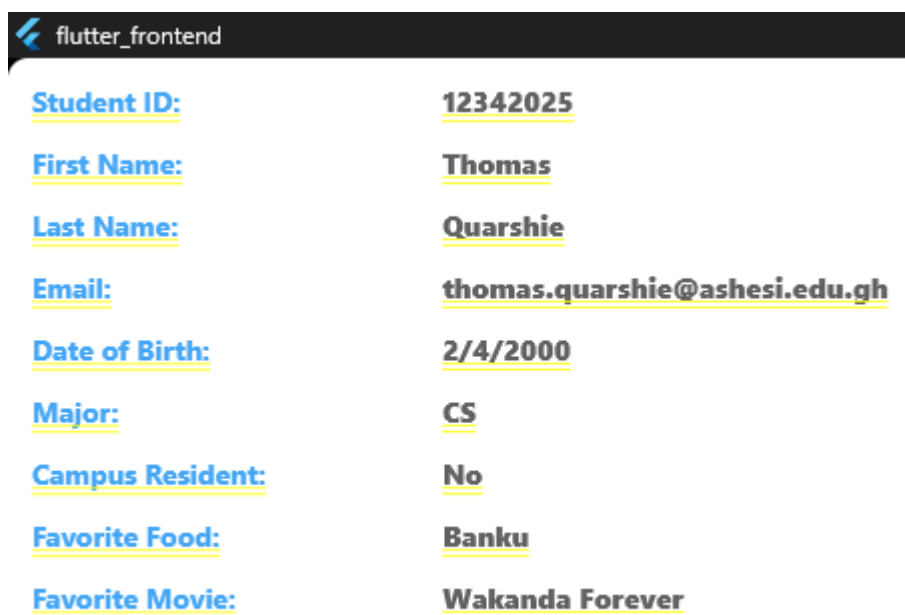


Figure 35 shows info of specific user.

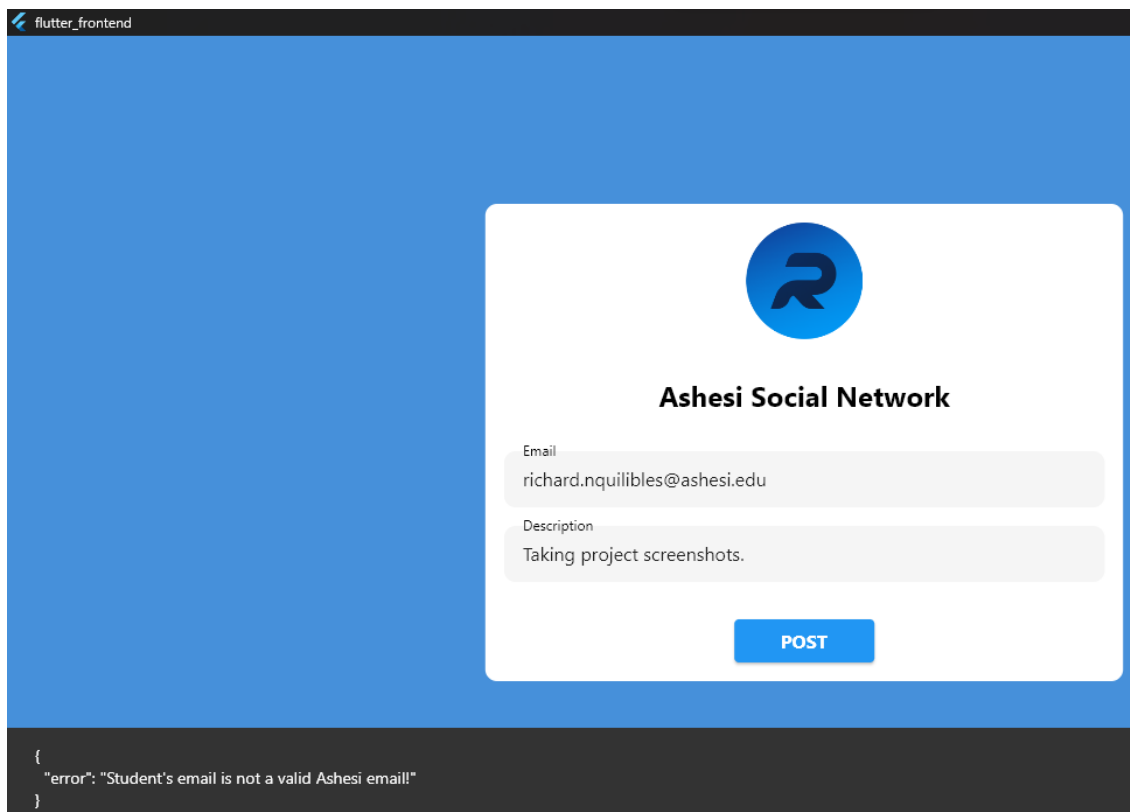


Figure 36 post page when email specified is invalid.

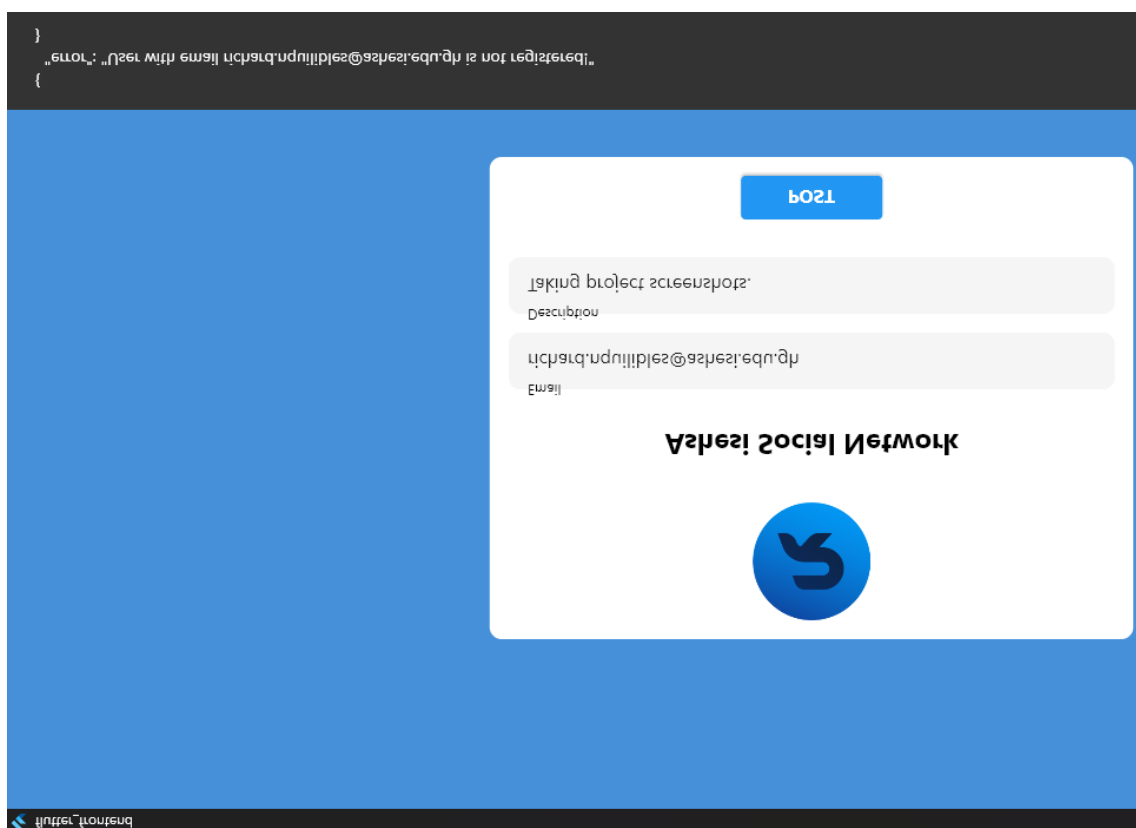


Figure 37 post page when user has not been registered. You cannot make a post if you haven't been registered.

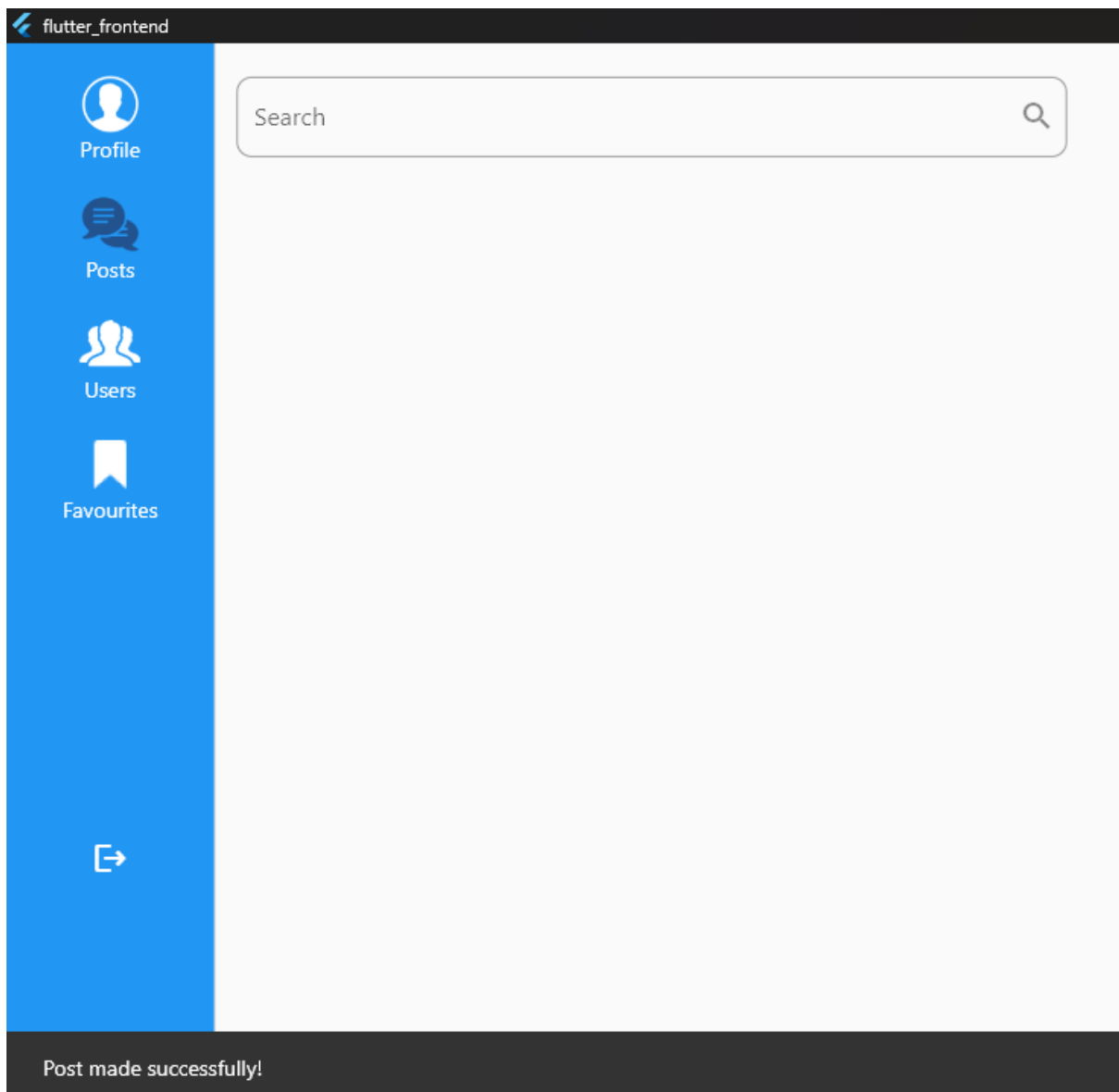


Figure 38 feed page when the post is made successfully. Users are notified in the process.

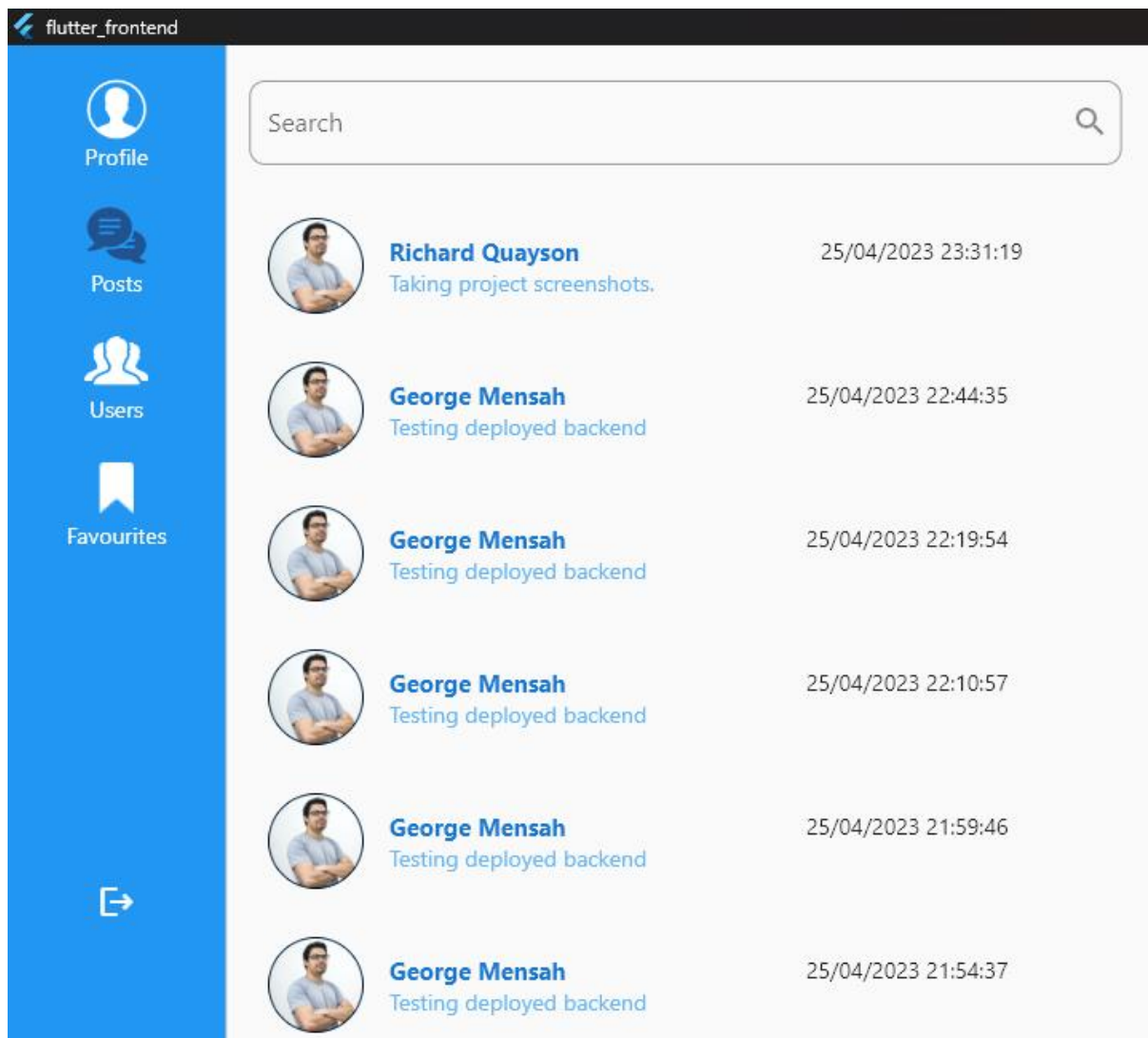
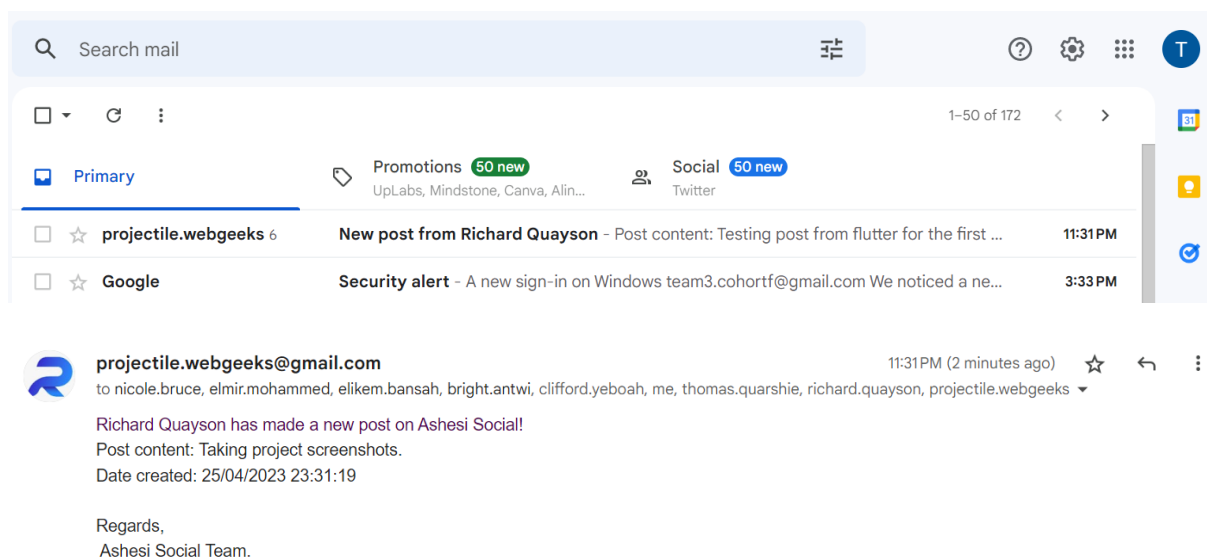


Figure 39 after feed page loads, new post made is seen at the top as feed is arranged in descending order.



The screenshot shows a Gmail interface. At the top is a search bar labeled "Search mail". Below it are tabs for "Primary", "Promotions", and "Social". The "Primary" tab is selected. The email list shows one email from "me, postmaster 2" with the subject "New post from Richard Quayson". The email content is as follows:

New post from Richard Quayson Inbox x

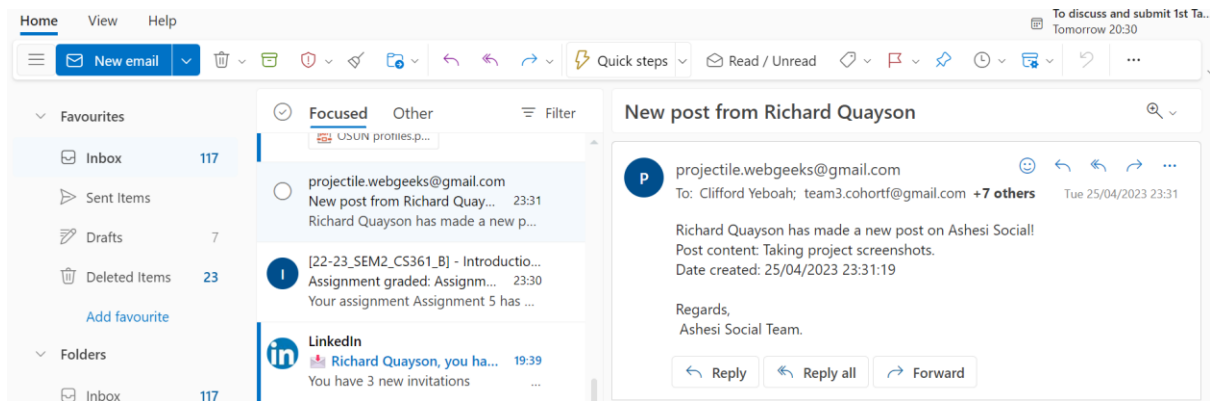
projectile.webgeeks@gmail.com 11:31 PM (4 minutes ago) ☆ ↶ ⋮
to clifford.yeboah, team3.cohortf, nicole.bruce, thomas.quarshie, elmir.mohammed, richard.quayson, elikem.bansah, bright.antwi, me ▾

Richard Quayson has made a new post on Ashesi Social!
Post content: Taking project screenshots.
Date created: 25/04/2023 23:31:19

Regards,
Ashesi Social Team.

The screenshot shows the Microsoft Outlook interface. The top bar includes the "Outlook" logo and a search bar. Below the top bar are tabs for "Home", "View", and "Help". The "Home" tab is selected. The left sidebar shows the "Favourites" section with "Inbox" (119) and "Sent Items". The "Folders" section shows "Inbox" (119). The main pane displays a list of emails under the "Focused" tab. The emails are:

- projectile.webgeeks@gmail.com** 23:31
New post from Richard Qua...
Richard Quayson has made a new p...
- [22-23_SEM2_CS361_B] - Introducti...** 23:30
Assignment graded: Assign...
Your assignment Assignment 5 has ...
- LinkedIn** 19:39
Richard Quayson, you ha...
You have 3 new invitations ...



All users are notified when the email is sent.

GitHub repository:

https://github.com/Richard-Quayson/Ashesi_Social_Network

Deployed HTTP Function:

https://us-central1-ashesi-social-network-384820.cloudfunctions.net/ashesi_social_network_2996