Appointy Instagram Back End API

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Key points of the System Design:
Entity Relationship: One to Many
The Posts Collection has a reference to the user id, which makes use of one to many relationship.
Pagination:
To achieve pagination, I have added another parameter in the URI
For listing all the posts of user pagination, I have added an extra URI path parameter, which is the page number.
Page number 0 or no page number will fetch 1st page with page size currently defined as 3, which can be configured in the code.
The Code and what each function does and how the structures are defined is clearly mentioned as comments in the code file.
Sample output:
Creating User

http://localhost:8080/users

POST   http://localhost:8080/users   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      "Id":"appointy_i",
3      "Name":"appiont",
4      "Email":"appointy@gmail.com",
5      "Password":"ap@123"
6  }
```

Body   Cookies   Headers (3)   Test Results   200 OK   4 ms   169 B   Save Response

Pretty   Raw   Preview   Visualize   Text

```
1  UserId appointy_i created successfully for appiont
2
```

Retrieving user with UserId

GET http://localhost:80... ● | Release Notes | + | ooo | No Environment ⌄ | 👁

http://localhost:8080/users/appointy_i   💾 Save ⌄   ✏️ 💬   </>

| GET ⌄ | http://localhost:8080/users/appointy_i | **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  ····"Id":"appointy_i",
3  ····"Name":"appiont",
4  ····"Email":"appointy@gmail.com",
5  ····"Password":"ap@123"
6  }
```

Body   Cookies   Headers (3)   Test Results   🌐 200 OK   11 ms   374 B   **Save Response** ⌄

Pretty   Raw   Preview   Visualize   Text ⌄   ⇥   ⧉ 🔍

```
1  User found:
2  [{"Email":"appointy@gmail.com","Id":"appointy_i","Name":"appiont",
      "Password":"7e290d9baf2ad44e938487bb20bfb6d74948d67d0003f01250b7aeb4611bf927a8e260096e14d1d3e6ff866d0
      0c6f7c82e4a112809620bcb680bf58e4ea2556c","_id":"6161d1f55dfd9c95068762d0"}]
3
```

Creating a Post

http://localhost:8080/posts

[Save] [v]   [✏️] [💬]

| POST v | http://localhost:8080/posts | **Send** v |

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

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

```
1  {
2      "Caption":"Hi this is my first post",
3      "ImageURL":"https://google.com/appointy",
4      "UserId":"appointy_i"
5  }
```

Body   Cookies   Headers (3)   Test Results   🌐 200 OK 5 ms 186 B   **Save Response** v

Pretty   Raw   Preview   Visualize   Text v   ⇥   📋 🔍

```
1  Post "Hi this is my first post" created successfully for appointy_i
2  |
```

Mongo
Users:

appointyMongoDB.users
Documents

appointyMongoDB.users

DOCUMENTS **8**   TOTAL SIZE 1.3KB   AVG. SIZE 165B   INDEXES **1**   TOTAL SIZE 36.0KB   AVG. SIZE 36.0KB

Documents   Aggregations   Schema   Explain Plan   Indexes   Validation

FILTER `{ field: 'value' }`   ▸ OPTIONS   **FIND**   RESET

⬇ ADD DATA ▾   VIEW   Displaying documents **1 - 8** of 8   ↻ REFRESH

```
_id: ObjectId("61619b422fa514dfb9ed6ef2")
Id: "venkat_bla_reddy"
Name: "Blah"
Email: "vvvv"
Password: "ddddd"
```

```
_id: ObjectId("61619e1c56c2be2610ad1339")
Id: "hash_reddy"
Name: "PassHash Test"
Email: "vvvv"
Password: "3971ebf11a18bce250a282e6ff78739c9a0f7bcb9bc3552fe9cd8191e4a4da573bb389..."
```

```
_id: ObjectId("6161c5395dfd9c95068762cc")
Id: "final_dummy_tester"
Name: "finalizer"
Email: "finalizer@gmail.com"
Password: "6b3b10576d3cf10fa47abfb3555b037836310af88b99659765f0f011a67fc26cd6a3ce..."
```

```
_id: ObjectId("6161d1f55dfd9c95068762d0")
Id: "appointy_i"
Name: "appiont"
Email: "appointy@gmail.com"
Password: "7e290d9baf2ad44e938487bb20bfb6d74948d67d0003f01250b7aeb4611bf927a8e260..."
```

Retrieving the post with postID

http://localhost:8080/posts/389528509167   🖫 Save ⌄   ✏️ 💬

GET ⌄   http://localhost:8080/posts/389528509167   **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      "Caption":"Hi this is my first post",
3      "ImageURL":"https://google.com/appointy",
4      "UserId": "appointy_i"
5  }
```

Body   Cookies   Headers (3)   Test Results   ⊕ 200 OK   7 ms   337 B   Save Response ⌄

Pretty   Raw   Preview   Visualize   Text ⌄   ⇄   🗐 🔍

```
1  Post message is:
2  [{"Caption":"Hi this is my first post","Id":389528509167,"ImageURL":"https://google.com/appointy",
       "PostedTS":"Saturday, 09-Oct-21 23:06:24 IST","UserId":"appointy_i","_id":"6161d3185dfd9c95068762d3"}
       ]
3
```

Pagination

Page 1

💾 Save ⌄ | ✏️ 💬

GET ⌄ | http://localhost:8080/posts/users/venkat_reddy | **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      "Caption":"Hi this is my first post",
3      "ImageURL":"https://google.com/appointy",
4      "UserId": "appointy_i"
```

Body   Cookies   Headers (3)   Test Results   🌐 200 OK 5 ms 703 B   Save Response ⌄

Pretty   Raw   Preview   Visualize   Text ⌄

```
1  Users posts are:
2  [{"Caption":"Pagination Test 10","Id":389526202598,"ImageURL":"https://www.insta.com",
       "PostedTS":"Saturday, 09-Oct-21 20:25:09 IST","UserId":"venkat_reddy",
       "_id":"6161ad4da70f7592498e4d38"},{"Caption":"Pagination Test 9","Id":389526201690,
       "ImageURL":"https://www.insta.com","PostedTS":"Saturday, 09-Oct-21 20:25:05 IST",
       "UserId":"venkat_reddy","_id":"6161ad49a70f7592498e4d37"},{"Caption":"Pagination Test 8",
       "Id":389526200876,"ImageURL":"https://www.insta.com","PostedTS":"Saturday, 09-Oct-21 20:25:02 IST",
       "UserId":"venkat_reddy","_id":"6161ad46a70f7592498e4d36"}]
3
```

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💾 Save ⌄ | ✏️ 💬

GET ⌄ | http://localhost:8080/posts/users/venkat_reddy/2 | **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      "Caption":"Hi this is my first post",
3      "ImageURL":"https://google.com/appointy",
4      "UserId": "appointy_i"
```

Body   Cookies   Headers (3)   Test Results   🌐 200 OK 3 ms 702 B   Save Response ⌄

Pretty   Raw   Preview   Visualize   Text ⌄

```
1  Users posts are:
2  [{"Caption":"Pagination Test 7","Id":389526199974,"ImageURL":"https://www.insta.com",
       "PostedTS":"Saturday, 09-Oct-21 20:24:58 IST","UserId":"venkat_reddy",
       "_id":"6161ad42a70f7592498e4d35"},{"Caption":"Pagination Test 6","Id":389526199106,
       "ImageURL":"https://www.insta.com","PostedTS":"Saturday, 09-Oct-21 20:24:55 IST",
       "UserId":"venkat_reddy","_id":"6161ad3fa70f7592498e4d34"},{"Caption":"Pagination Test 5",
       "Id":389526198283,"ImageURL":"https://www.insta.com","PostedTS":"Saturday, 09-Oct-21 20:24:51 IST",
       "UserId":"venkat_reddy","_id":"6161ad3ba70f7592498e4d33"}]
3
```

Page 3

http://localhost:8080/posts/users/venkat_reddy/3

GET   http://localhost:8080/posts/users/venkat_reddy/3   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      "Caption":"Hi this is my first post",
3      "ImageURL":"https://google.com/appointy",
4      "UserId": "appointy_i"
```

Body   Cookies   Headers (3)   Test Results   200 OK 3 ms 702 B   Save Response ∨

Pretty   Raw   Preview   Visualize   Text ∨

```
1  Users posts are:
2  [{"Caption":"Pagination Test 4","Id":389526197350,"ImageURL":"https://www.insta.com",
      "PostedTS":"Saturday, 09-Oct-21 20:24:47 IST","UserId":"venkat_reddy",
      "_id":"6161ad37a70f7592498e4d32"},{"Caption":"Pagination Test 3","Id":389526196057,
      "ImageURL":"https://www.insta.com","PostedTS":"Saturday, 09-Oct-21 20:24:42 IST",
      "UserId":"venkat_reddy","_id":"6161ad32a70f7592498e4d31"},{"Caption":"Pagination Test 2",
      "Id":389526195119,"ImageURL":"https://www.insta.com","PostedTS":"Saturday, 09-Oct-21 20:24:38 IST",
      "UserId":"venkat_reddy","_id":"6161ad2ea70f7592498e4d30"}]
3
```

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http://localhost:8080/posts/users/venkat_reddy/4

| GET ∨ | http://localhost:8080/posts/users/venkat_reddy/4 | 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  ····"Caption":"Hi·this·is·my·first·post",
3  ····"ImageURL":"https://google.com/appointy",
4  ····"UserId":·"appointy_i"
```

Body   Cookies   Headers (3)   Test Results   ⊕ 200 OK 5 ms 658 B   Save Response ∨

Pretty   Raw   Preview   Visualize   Text ∨   ⇄   ⧉ 🔍

```
1  Users posts are:
2  [{"Caption":"Pagination Test 1","Id":389526192198,"ImageURL":"https://www.insta.com",
   "PostedTS":"Saturday, 09-Oct-21 20:24:26 IST","UserId":"venkat_reddy",
   "_id":"6161ad22a70f7592498e4d2f"},{"Caption":"This is a Test!","Id":389525024400,"ImageURL":"http://
   www.we.com","PostedTS":"Saturday, 09-Oct-21 19:02:47 IST","UserId":"venkat_reddy",
   "_id":"61619a0478765ecc14cde1eb"},{"Caption":"This is a Test!","Id":389524994072,"ImageURL":"http://
   www.we.com","PostedTS":"","UserId":"venkat_reddy","_id":"6161998c6c4315f4210a286b"}]
3
```