RESTful API Instruction

(Before using, make sure that all files in the `**551_pg37_project/Code/Firebase Emulation & Web App**`are downloaded and all the files are located in the origin folder)

This is the instruction on how to use command URLs to call the RESTful API(Firebase Emulation). Frist, start the server program (test_server.py) in terminal with command `python test_server.py`.
Then, open another terminal window and use the below commands to call RESTful API.

Posts

1. get_posts()
   (1) Get all the posts in the database.
       curl -X GET 'http://localhost:8000/posts.json'

   (2) curl -X GET 'http://localhost:8000/posts.json?orderBy=like_number'
       If the index on the attribute for order is not created, there will be a notification in the terminal window running. After entering `y`, new index will be created and ordered result will be returned.

   (3) curl -X GET 'http://localhost:8000/posts.json?orderBy=like_number&equalTo=3'
       Output:
       [
        {
          "_id": "BcqlXcXgM1E",
          "account_name": "uscrockclimbing",
          "article": null,
          "like_number": 3
        },
        {
          "_id": "BX6_dMoh3I2",
          "account_name": "trojanfencing",
          "article": "No fencing experience required!\n\nFall practices start Tuesday, Aug. 29th at 9pm in PED200 (South Gym).",

```
    "like_number": 3
   }
 ]
```

(4) curl -X GET
'http://localhost:8000/posts.json?orderBy=like_number&limitToFirst=3'

(5) curl -X GET
'http://localhost:8000/posts.json?orderBy=like_number&limitToLast=3'

(6) orderBy & startAt & endAt
curl -X GET
'http://localhost:8000/posts.json?orderBy=like_number&startAt=8000&endAt=10000'

Output:

```
[
  {
    "_id": "CpB_3M9OVzh",
    "account_name": "uschoops",
    "article": "For the first time in program history, we\u2019ve now posted four straight 20-win seasons! Say it with us: Thanks, Enfield!",
    "like_number": 5024
  },
  {
    "_id": "Cl136nwvNdT",
    "account_name": "uscwsoccer",
    "article": "@croixbethune is really \ud835\udc6f\ud835\udc6c\ud835\udc79\ud83d\ude24\u2694\ufe0f\ud83d\udd25\ud83d\ude4c\n\nShe becomes just the second player in USC Soccer history to earn All-America first team honors twice!\u270c\ufe0f\n\n#FightOn // #CB7",
    "like_number": 5190
  },
  {
    "_id": "CmM7eTFy36x",
    "account_name": "uscwsoccer",
    "article": "\ud83d\udc4f @topdrawersoccer Best XI first team \ud83d\ude4c\ud83e\udd29\n\n@croixbethune\u2019s special talent continues to be recognized \ud83d\udcaa\u26bd\ufe0f\u270c\ufe0f\n\n#FightOn // #CB7",
    "like_number": 7615
  },
  {
    "_id": "CpHE5rDrxVE",
    "account_name": "uschoops",
```

```
      "article": "Your Trojans have clinched a first-round bye at the Pac-12
    Tournament for the fourth year in a row! \ud83d\udd25",
        "like_number": 9893
      }
    ]
```

(7) orderBy & startAt & limitToFirst
    curl -X GET
    'http://localhost:8000/posts.json?orderBy=like_number&startAt=8000&limitToFirst=3'

    Output:
```
    [
      {
        "_id": "CpB_3M9OVzh",
        "account_name": "uschoops",
        "article": "For the first time in program history, we\u2019ve now posted four
    straight 20-win seasons! Say it with us: Thanks, Enfield!",
        "like_number": 5024
      },
      {
        "_id": "Cl136nwvNdT",
        "account_name": "uscwsoccer",
        "article": "@croixbethune is really \ud835\udc6f\ud835\udc6c\ud835\udc79
    \ud83d\ude24\u2694\ufe0f\ud83d\udd25\ud83d\ude4c\n\nShe becomes just the
    second player in USC Soccer history to earn All-America first team honors twice!
    \u270c\ufe0f\n\n#FightOn // #CB7",
        "like_number": 5190
      },
      {
        "_id": "CmM7eTFy36x",
        "account_name": "uscwsoccer",
        "article": "\ud83d\udc4f @topdrawersoccer Best XI first team
    \ud83d\ude4c\ud83e\udd29\n\n@croixbethune\u2019s special talent continues to
    be recognized \ud83d\udcaa\u26bd\ufe0f\u270c\ufe0f\n\n#FightOn // #CB7",
        "like_number": 7615
      }
    ]
```

(8) orderBy & startAt & limitToLast
    curl -X GET
    'http://localhost:8000/posts.json?orderBy=like_number&startAt=8000&limitToLast=3'

Output:
```
[
  {
    "_id": "Cl136nwvNdT",
    "account_name": "uscwsoccer",
    "article": "@croixbethune is really \ud835\udc6f\ud835\udc6c\ud835\udc79\ud83d\ude24\u2694\ufe0f\ud83d\udd25\ud83d\ude4c\n\nShe becomes just the second player in USC Soccer history to earn All-America first team honors twice! \u270c\ufe0f\n\n#FightOn // #CB7",
    "like_number": 5190
  },
  {
    "_id": "CmM7eTFy36x",
    "account_name": "uscwsoccer",
    "article": "\ud83d\udc4f @topdrawersoccer Best XI first team \ud83d\ude4c\ud83e\udd29\n\n@croixbethune\u2019s special talent continues to be recognized \ud83d\udcaa\u26bd\ufe0f\u270c\ufe0f\n\n#FightOn // #CB7",
    "like_number": 7615
  },
  {
    "_id": "CpHE5rDrxVE",
    "account_name": "uschoops",
    "article": "Your Trojans have clinched a first-round bye at the Pac-12 Tournament for the fourth year in a row! \ud83d\udd25",
    "like_number": 9893
  }
]
```

(9) orderBy & endAt & limitToFirst
curl -X GET
'http://localhost:8000/posts.json?orderBy=like_number&endAt=3&limitToFirst=3'

Output:
```
[
  {
    "_id": "ColcQbjPm0T",
    "account_name": "trojanarchery",
    "article": "Happy Valentine\u2019s Trojan Archery!\n\nWe hope you all are having a wonderful semester so far!\n\n In honor of Valentine\u2019s Day being this week, we are hosting our annual Valentine\u2019s Day Shoot on Friday, Feb. 17th during our normal practice time in PED 210. \n\nFeel free to join us as we shoot fun targets, snack on some classic treats, and enjoy the highlight of the
```

night: Cupid\u2019s Gameshow: The Art of Duos and Don\u2019ts! Even if you don\u2019t compete in it, watching will be just as fun!",
   "like_number": 0
  },
  {
   "_id": "CobP84UJre4",
   "account_name": "trojanarchery",
   "article": "Nothing could have ended our indoor season better than the 2023 SoCal Indoor Archery Collegiate Championships at the Easton Archery Center of Excellence in Chula Vista! \n\nIt was the first collegiate competition for many of our new members and they all absolutely smashed it! We are incredibly proud of our archers, new and old, and we can't wait to see what you bring in the coming months!\n\nA huge thank you to \n- SGA Alumni Association and the Easton Archery Center for hosting this event\n- Our wonderful coaches Luke, Terri, and Katherine for their never-ending support\u2764\ufe0f",
   "like_number": 0
  },
  {
   "_id": "CnvXlDCvFLt",
   "account_name": "trojanarchery",
   "article": "Hello Trojan Family!\n\nThis past weekend, our team competed at the 54th USA Archery Indoor Nationals held at Chula Vista, CA!\n\nFor many of our archers, this was the FIRST EVER national-level competition and they stepped into the Olympic Training Center for the very first time! Two days of back-to-back shooting surely wasn\u2019t easy, but thanks to the cheers from our fellow archers and coaches, everyone had an awesome time\ud83d\ude4a\u2728\n\nHeartfelt thanks to our coaches and a big congratulations to all of our archers!\n\nKeep calm and shoot on!\ud83c\udff9",
   "like_number": 0
  }
  ]

(10)   orderBy & endAt & limitToLast
curl -X GET
'http://localhost:8000/posts.json?orderBy=like_number&endAt=3&limitToLast=3'

Output:
[
  {
   "_id": "Co_oAM9uP4l",
   "account_name": "uscmensvolley",
   "article": "Forever in our hearts and forever a Trojan. #FightOnForever \u270c\ufe0f",
   "like_number": 0

```
        },
        {
          "_id": "BcqlXcXgM1E",
          "account_name": "uscrockclimbing",
          "article": null,
          "like_number": 3
        },
        {
          "_id": "BX6_dMoh3I2",
          "account_name": "trojanfencing",
          "article": "No fencing experience required!\n\nFall practices start Tuesday, Aug.
        29th at 9pm in PED200 (South Gym).",
          "like_number": 3
        }
      ]
```

2. get_post_by_id(post_id)
   curl -X GET 'http://localhost:8000/posts/CAFbog6ARR7.json'

3. get_post_field(post_id)
   curl -X GET 'http://localhost:8000/posts/CAFbog6ARR7/like_number.json'

4. create_post()
   Automatically generate a unique _id for created post

   curl -X POST -H "Content-Type: application/json" -d
   '{"account_name":"trojantennisclub"}' 'http://localhost:8000/posts.json'

5. update_or_create_post(post_id)
   Update the whole post

   curl -X PUT -H "Content-Type: application/json" -d
   '{"account_name":"trojantennisclub","article":"Our new members are here!",
   "like_number":10}' 'http://localhost:8000/posts/061e23f4d61.json'

6. update_post(post_id)
   Update part/all of a post

   curl -X PATCH -H "Content-Type: application/json" -d '{"article":"Our new members!"}'
   'http://localhost:8000/posts/061e23f4d61.json'

7. delete_post(post_id)
   curl -X DELETE 'http:/localhost:8000/posts/061e23f4d61.json'

Comments

1. get_comments()
   curl -X GET 'http://localhost:8000/comments.json'

2. get_post_comments(post_id)
   (1) curl -X GET 'http://localhost:8000/comments/CcJdyQrPuoe.json'
       Output:
       ```
       [
        {
          "_id": "CcJdyQrPuoe_C1",
          "comments": "So proud of you Hadick!!\u2764\ufe0f"
        },
        {
          "_id": "CcJdyQrPuoe_C2",
          "comments": "Fight on! \ud83d\udd34\ud83d\udfe1\ud83d\udd34\ud83d\udfe1"
        },
        {
          "_id": "CcJdyQrPuoe_C3",
          "comments": "Congratulations Coach Van Nostrand!"
        },
        {
          "_id": "CcJdyQrPuoe_C4",
          "comments": "Way to go!!!!!!"
        }
       ]
       ```
   (2) curl -X GET 'http://localhost:8000/comments/CcJdyQrPuoe.json?orderBy=$value'
       When order by value, the result will order by comments (text content of one comment.)
       Output:
       ```
       [
        {
          "_id": "CcJdyQrPuoe_C3",
          "comments": "Congratulations Coach Van Nostrand!"
        },
        {
          "_id": "CcJdyQrPuoe_C2",
          "comments": "Fight on! \ud83d\udd34\ud83d\udfe1\ud83d\udd34\ud83d\udfe1"
        },
        {
          "_id": "CcJdyQrPuoe_C1",
          "comments": "So proud of you Hadick!!\u2764\ufe0f"
        },
        {
       ```

```
      "_id": "CcJdyQrPuoe_C4",
      "comments": "Way to go!!!!!!"
    }
  ]
```

3. get_comment_by_id(post_id, comment_id)
   curl -X GET 'http://localhost:8000/comments/CcJdyQrPuoe/CcJdyQrPuoe_C1.json'
   Output:
   {
     "_id": "CcJdyQrPuoe_C1",
     "comments": "So proud of you Hadick!!\u2764\ufe0f"
   }

4. get_comment_field(post_id, comment_id)
   curl -X GET
   'http://localhost:8000/comments/CcJdyQrPuoe/CcJdyQrPuoe_C1/comments.json'
   Output:
   {
     "comments": "So proud of you Hadick!!\u2764\ufe0f"
   }

5. create_comment(post_id)
   A unique _id will be generated for created comment according to the order of existing
   comments under that post.
   curl -X POST -H "Content-Type: application/json" -d '{"comments":"So happy to know
   this!!!"}' 'http://localhost:8000/comments/CcJdyQrPuoe.json'
   Output:
   {
     "_id": "CcJdyQrPuoe_C5",
     "message": "Comment created successfully"
   }

6. update_or_create_comment(post_id, comment_id)
   Update one comment or create a new comment

   If the comment already exists then update the comment:
   curl -X PUT -H "Content-Type: application/json" -d '{"comments":"Very happy to know
   this!!!"}' 'http://localhost:8000/comments/CcJdyQrPuoe/CcJdyQrPuoe_C5.json'
   Output:
   {
     "message": "Comment updated successfully"
   }

If the comment doesn't exist then create a new comment with this comment _id:
curl -X PUT -H "Content-Type: application/json" -d '{"comments":"Exciting!"}'
'http://localhost:8000/comments/CcJdyQrPuoe/CcJdyQrPuoe_C6.json'
Output:
{
  "_id": "CcJdyQrPuoe_C6",
  "message": "Comment created successfully"
}

7. update_comment(post_id, comment_id)
   Update one comment

   curl -X PATCH -H "Content-Type: application/json" -d '{"comments":"Excited!"}'
   'http://localhost:8000/comments/CcJdyQrPuoe/CcJdyQrPuoe_C6.json'
   Output:
   {
     "message": "Comment updated successfully"
   }

8. delete_comment(comment_id)
   Delete one comment

   curl -X DELETE 'http://localhost:8000/comments/CcJdyQrPuoe/CcJdyQrPuoe_C6.json'

   Output:
   {
     "message": "Comment deleted successfully"
   }