

# SOFTWARE ENGINEERING PROJECT

# Milestone-IV



## **GROUP 11**

# **REST API Documentation**

An API is an interface that two computer systems use to exchange information securely over the internet.

API documentation is essentially an instruction manual that explains how to use an API and its services. It is the primary resource for explaining what is possible with your API and how to get started.

The document should include examples of each call, parameter, and response to each call. Developers are the primary consumers of APIs and need comprehensive, accurate and well-structured information to start, thus the need for such a document.

For the purpose of this project, Swagger has been used to document the API.



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# QuickResolve 1.0 OAS3

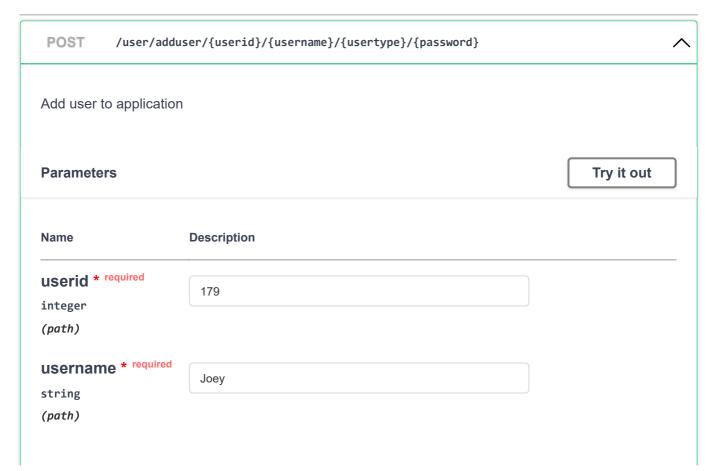
QuickResolve is a platform that enables effective query redressal. Herein, the students can post their queries and the support staff can resolve the queries. The platform provides additional functionalities such as pinning the queries, reporting, deleting & adding the queries to the FAQ document. The web application is built using the Flask framework & can be easily run on the localhost.

Here we present the API documentation for the designed application.

#### Servers

http://127.0.0.1:5000

# **User** Endpoints for defining user operations



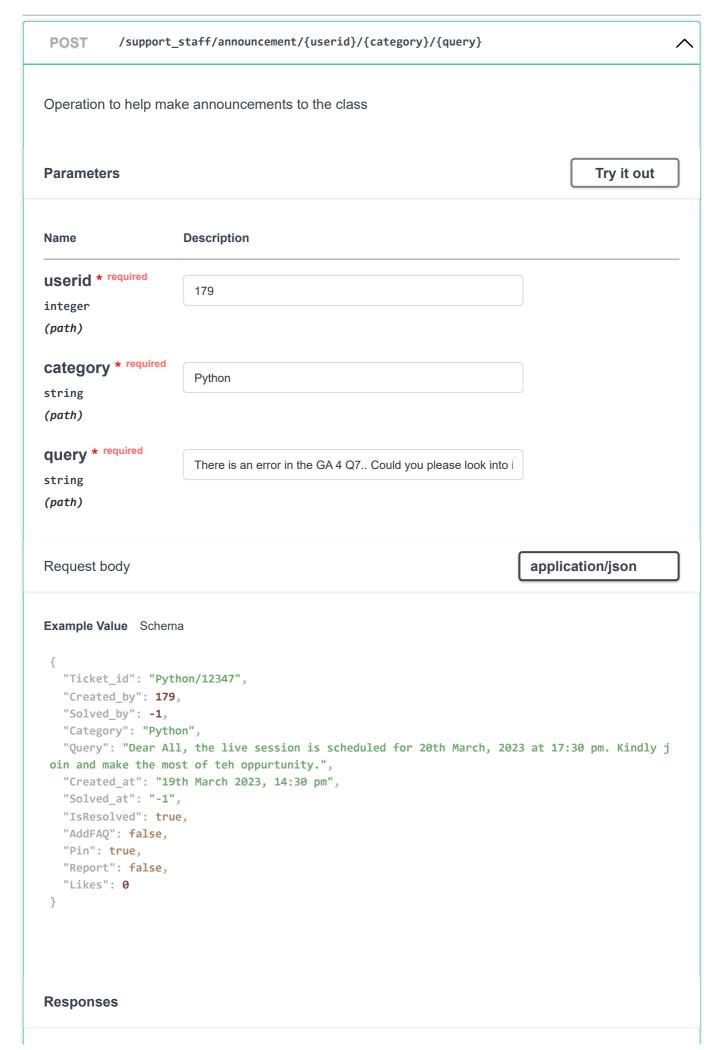
```
Name
                        Description
usertype * required
                         Student
string
(path)
password * required
                         2pizzas@JoeySpecial
string
(path)
Request body
                                                                               application/json
Example Value Schema
  "UserId": 1,
  "Username": "John Doe",
  "UserType": "Support Staff",
  "Password": "1234@xyz"
Responses
             Description
Code
                                                                                              Links
200
                                                                                              No links
             Request Successful - User Added Successfully!
             Media type
               application/json
             Controls Accept header.
             Example Value Schema
                "userid": 179,
                "username": "Joey",
                "status": "User Added Successfully!"
403
                                                                                              No links
             Already Exists
             Media type
               application/json
             Example Value Schema
```

```
Code
             Description
                                                                                             Links
              {
                "status": "User already exists"
              }
500
                                                                                             No links
             Internal Server Error
             Media type
               application/json
             Example Value Schema
                "status": "Internal Server Error"
 GET
            /user/login/{username}/{password}
Operation to help user login to access resource.
                                                                                         Try it out
Parameters
Name
                        Description
username * required
                         Joey
string
(path)
password * required
                         2pizzas@JoeySpecial
string
(path)
Responses
             Description
Code
                                                                                             Links
200
                                                                                             No links
             Request Successful - User Verrified!
             Media type
```

```
Code
              Description
                                                                                              Links
               application/json
              Controls Accept header.
              Example Value Schema
                 "userid": 179,
                "username": "Joey",
                "usertype": "Student",
                "status": "User Verrified Successfully!"
               }
                                                                                              No links
404
             Bad Request
              Media type
               application/json
              Example Value Schema
                 "status": "User does not exist"
               }
500
                                                                                              No links
              Internal Server Error
              Media type
               application/json
              Example Value Schema
                 "status": "Internal Server Error"
DELETE
            /user/deluser/{username}/{password}
Operation to help users delete their account after validating credentials.
Parameters
                                                                                         Try it out
Name
                        Description
username * required
                          Joey
string
(path)
```

```
Description
Name
password * required
                          2pizzas@JoeySpecial
string
(path)
Responses
              Description
Code
                                                                                               Links
200
                                                                                                No links
              Request Successful - Account Deleted!
              Media type
               application/json
              Controls Accept header.
              Example Value Schema
                 "status": "Account Deleted Successfully!"
                                                                                               No links
404
              Bad Request
              Media type
                application/json
              Example Value Schema
                 "status": "Account does not exist"
500
                                                                                               No links
              Internal Server Error
              Media type
               application/json
              Example Value Schema
                 "status": "Internal Server Error"
```





```
Description
Code
                                                                                               Links
200
                                                                                               No links
             Request Successful - Ticket Added Successfully!
             Media type
               application/json
             Controls Accept header.
             Example Value Schema
                 "userid": 179,
                "Ticket_id": "Joey",
                 "status": "Ticket Added Successfully!"
403
                                                                                               No links
             Already exists
             Media type
               application/json
             Example Value Schema
                 "status": "Ticket with same query already exists"
500
                                                                                               No links
             Internal Server Error
             Media type
               application/json
             Example Value Schema
                 "status": "Internal Server Error"
              }
 PUT
            /support_staff/resolve_ticket/{ticket_id}
Operation to help support staff resolve queries.
                                                                                           Try it out
Parameters
```

```
Name Description

ticket_id * required string (path)

Request body

Application/json
```

#### Example Value Schema

```
{
  "Ticket_id": "Python_12345",
  "IsResolved": true,
  "Solution": "Dear Student, GA 4 Q7 has been updated on the portal, kindly check.",
  "Solved_by": 143,
  "Solved_at": "19th March 2023, 19:47 pm"
}
```

#### Responses

Code Description Links

200 No links

Request Successful - Query Resolved!

Media type

application/json

Controls Accept header.

Example Value Schema

```
"Ticket_id": "Python_12345",
   "status": "Query Resolved Successfully!"
}
```

404 No links
Bad Request

Media type

### application/json

## Example Value Schema

```
{
   "status": "Query with given id doesn't exist!"
}
```

```
Code
             Description
                                                                                            Links
500
                                                                                            No links
             Internal Server Error
             Media type
               application/json
             Example Value Schema
                "status": "Internal Server Error"
 PUT
           /support_staff/pin_ticket/{ticket_id}
Operation to help pin important tickets.
                                                                                        Try it out
Parameters
                      Description
Name
ticket_id * required
                       Python_12345
string
(path)
                                                                              application/json
Request body
Example Value Schema
   "Ticket_id": "Python_12345",
  "Pin": true
Responses
Code
             Description
                                                                                            Links
200
                                                                                            No links
             Request Successful - Query Pinned!
```

```
Code
             Description
                                                                                              Links
             Media type
               application/json
             Controls Accept header.
             Example Value Schema
                "Ticket_id": "Python_12345",
                "status": "Query Pinned successfully!"
404
                                                                                              No links
             Bad Request
             Media type
               application/json
             Example Value Schema
                "status": "Query with given id doesn't exist!"
500
                                                                                              No links
             Internal Server Error
             Media type
               application/json
             Example Value Schema
                "status": "Internal Server Error"
 PUT
            /support_staff/report_ticket/{ticket_id}
Operation to help maintain decorum and policy defined by the university.
Parameters
                                                                                         Try it out
Name
                      Description
ticket_id * required
                        Python_12345
string
(path)
```

Request body

application/json

```
Example Value Schema
```

```
{
  "Ticket_id": "Python_12345",
  "Report": true
}
```

#### Responses

### Code Description Links

200 Request Successful - Query Reported!

No links

Media type

### application/json

Controls Accept header.

Example Value Schema

```
{
  "Ticket_id": "Python_12345",
  "status": "Query Reported successfully!"
}
```

404 Bad Request

No links

Media type

### application/json

#### Example Value Schema

```
"status": "Query with given id doesn't exist!"
}
```

```
Code Description Links

500

Internal Server Error

Media type

application/json

Example Value Schema

{
    "status": "Internal Server Error"
}
```

## Admin Endpoints for defining admin operations

```
PUT
           /admin/add_ticket_to_faq/{ticket_id}
Operation to help support staff resolve queries.
Parameters
                                                                                     Try it out
                     Description
Name
ticket_id * required
                       Python_12345
string
(path)
Request body
                                                                           application/json
Example Value Schema
   "Ticket_id": "Python_12345",
  "AddFAQ": true
Responses
```

```
Code
              Description
                                                                                               Links
200
                                                                                               No links
              Request Successful - Query Resolved!
              Media type
                application/json
              Controls Accept header.
              Example Value Schema
                 "Ticket_id": "Python_12345",
                 "status": "Query Added to FAQ Successfully!"
               }
                                                                                               No links
404
              Bad Request
              Media type
                application/json
              Example Value Schema
                 "status": "Query with given id doesn't exist!"
               }
500
                                                                                               No links
              Internal Server Error
              Media type
                application/json
              Example Value Schema
                 "status": "Internal Server Error"
DELETE
            /admin/delete_ticket/{ticket_id}
Operation to help delete redundant / objectionable tickets.
```

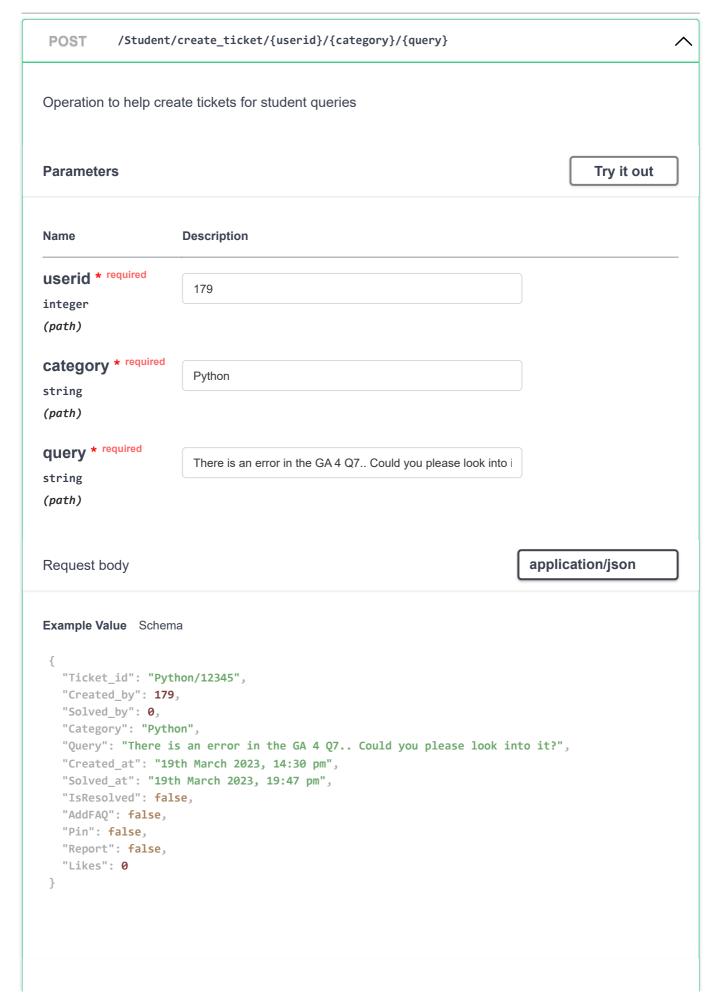
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**Parameters** 

Try it out

```
Name
                      Description
ticket_id * required
                        Python_12345
string
(path)
Responses
Code
              Description
                                                                                               Links
200
                                                                                               No links
              Request Successful - Query Deleted!
              Media type
               application/json
              Controls Accept header.
              Example Value Schema
                "Ticket_id": "Python_12345",
                "status": "Query Deleted successfully!"
404
                                                                                               No links
              Bad Request
              Media type
               application/json
              Example Value Schema
                 "status": "Query with given id doesn't exist!"
                                                                                               No links
500
              Internal Server Error
              Media type
               application/json
              Example Value Schema
                 "status": "Internal Server Error"
               }
```

## **Student** Endpoints for defining student operations



```
Responses
```

```
Description
Code
                                                                                                Links
200
                                                                                                No links
             Request Successful - Ticket Added Successfully!
             Media type
               application/json
             Controls Accept header.
             Example Value Schema
              {
                 "userid": 179,
                "Ticket_id": "Joey",
                 "status": "Ticket Added Successfully!"
                                                                                                No links
403
             Already exists
             Media type
               application/json
             Example Value Schema
                 "status": "Ticket with same query already exists"
500
                                                                                                No links
             Internal Server Error
             Media type
               application/json
             Example Value Schema
                 "status": "Internal Server Error"
              }
            /Student/like_ticket/{ticket_id}
 PUT
Operation to help students like tickets of interest
                                                                                           Try it out
Parameters
```

Swagger Editor

```
Name
                      Description
ticket_id * required
                        Python/12345
string
(path)
Request body
                                                                                application/json
Example Value Schema
   "Ticket_id": "Python/12345",
  "Likes": 1
Responses
             Description
Code
                                                                                               Links
200
                                                                                               No links
             Request Successful - Ticket Liked Successfully!
             Media type
               application/json
             Controls Accept header.
             Example Value Schema
                 "userid": 179,
                "ticket_id": "Python/12345",
                "status": "Ticket Liked Successfully!"
              }
404
                                                                                               No links
             Bad Request
             Media type
               application/json
             Example Value Schema
                 "status": "Query with given id doesn't exist!"
              }
500
                                                                                               No links
             Internal Server Error
```

```
Code Description Links

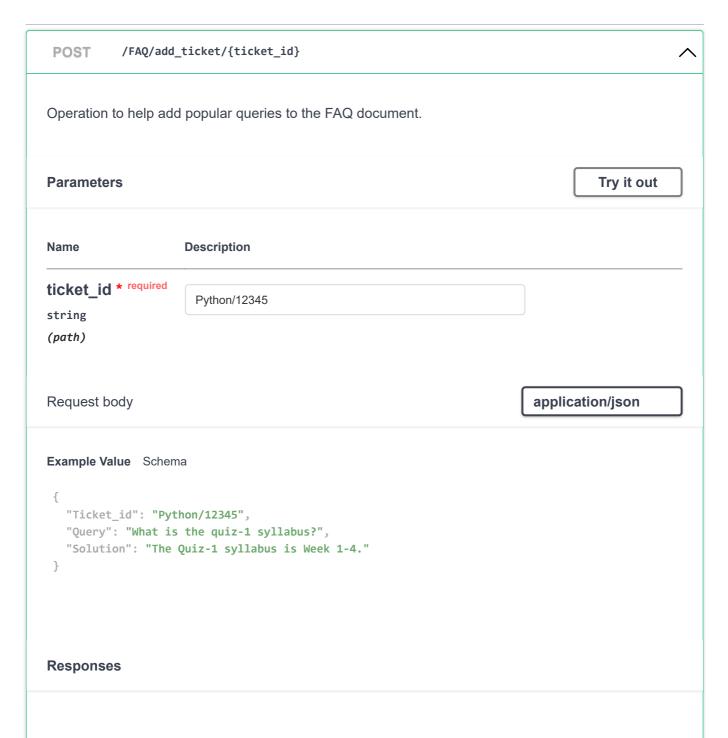
Media type

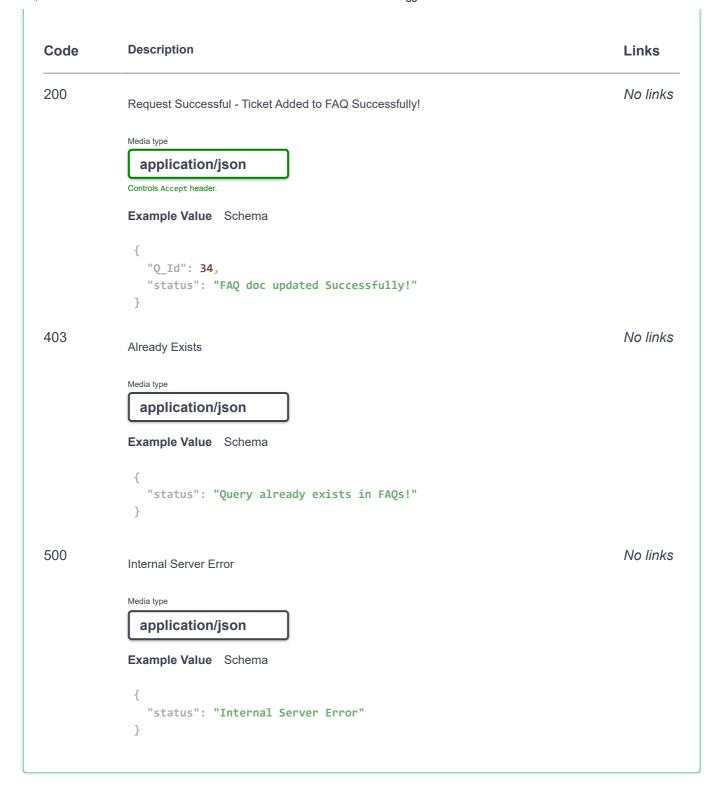
application/json

Example Value Schema

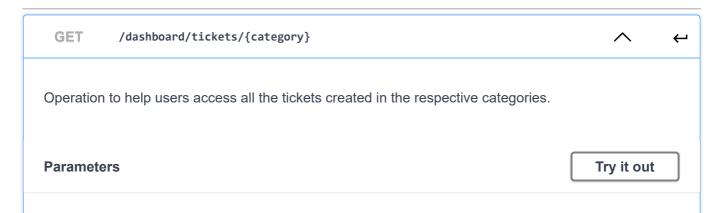
{
    "status": "Internal Server Error"
}
```

## FAQ Endpoints for defining FAQ operations





# **Dashboard** Endpoints for defining dashboard operations



```
Name
                      Description
category * required
                        Python
string
(path)
Responses
Code
             Description
                                                                                             Links
200
                                                                                             No links
             Request Successful - Tickets Returned!
             Media type
               application/json
             Controls Accept header.
             Example Value Schema
                "Ticket_id": "Python/12345",
                "Created_by": 179,
                "Solved_by": 0,
                "Category": "Python",
                "Query": "There is an error in the GA 4 Q7.. Could you please look
              into it?",
                "Created_at": "19th March 2023, 14:30 pm",
                "Solved_at": "19th March 2023, 19:47 pm",
                "IsResolved": false,
                "AddFAQ": false,
                "Pin": false,
                "Report": false,
                "Likes": 0
              }
404
                                                                                             No links
             Bad Request
             Media type
               application/json
             Example Value Schema
                "status": "Tickets do not exist for the given category"
              }
500
                                                                                             No links
```

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Internal Server Error

```
Code Description Links

Media type

application/json

Example Value Schema

{
    "status": "Internal Server Error"
}
```

```
Schemas
                                                                                                    \leftarrow
    user
              {
        UserId
                                     [...]
        UserName
                                     [...]
        UserType
                                     [...]
        Password
                                     [...]
    }
                                                                                                    \leftarrow
    faq
          {
        Q_Id
                                     [...]
        Query
                                     [...]
        Solution
                                     [...]
        Category
                                     [...]
    }
```

```
\leftarrow
ticket
   Ticket_id
                                [...]
    Created_by
                                [...]
    Solved_by
                                [...]
    Category
                                [...]
    Query
                                [...]
   Created_at
                                [...]
   Solved_at
                                [...]
    IsResolved
                                [...]
   AddFAQ
                                [...]
   Pin
                                [...]
    Report
                                [...]
    Likes
                                [...]
}
```