



SOFTWARE ENGINEERING PROJECT

Milestone-IV



GROUP 11

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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.

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

POST

/user/adduser/{userid}/{username}/{usertype}/{password}

Add user to application

Parameters

Try it out

Name	Description
userid * required	
integer	179
(path)	
username * required	
string	Joey
(path)	

Name	Description
usertype * required string (path)	<div>Student</div>
password * required string (path)	<div>2pizzas@JoeySpecial</div>

Request body

application/json

Example Value

Schema

```
{  "UserId": 1,  "Username": "John Doe",  "UserType": "Support Staff",  "Password": "1234@xyz"}
```

Responses

Code	Description	Links
200	<div>Request Successful - User Added Successfully!</div> <div>Media type<div>application/json</div><div>Controls Accept header.</div></div> <div><div>Example Value</div><div>Schema</div><div><pre>{ "userid": 179, "username": "Joey", "status": "User Added Successfully!"}</pre></div></div>	No links
403	<div>Already Exists</div> <div>Media type<div>application/json</div></div> <div><div>Example Value</div><div>Schema</div></div>	No links

Code	Description	Links
	<pre>{ "status": "User already exists" }</pre>	
500	Internal Server Error	No links
Media type		
<div>application/json</div>		
Example Value Schema		
<pre>{ "status": "Internal Server Error" }</pre>		

GET

/user/login/{username}/{password}

Operation to help user login to access resource.

Parameters

Try it out

Name	Description
username * required	
string (path)	<div>Joey</div>
password * required	
string (path)	<div>2pizzas@JoeySpecial</div>

Responses

Code	Description	Links
200	Request Successful - User Verrified!	No links
Media type		

Code	Description	Links
	<div>application/json</div> <div>Controls Accept header.</div> <div>Example Value Schema</div> <div><pre>{ "userid": 179, "username": "Joey", "usertype": "Student", "status": "User Verrified Successfully!"}</pre></div>	
404	Bad Request <div>Media type</div> <div>application/json</div> <div>Example Value Schema</div> <div><pre>{ "status": "User does not exist"}</pre></div>	No links
500	Internal Server Error <div>Media type</div> <div>application/json</div> <div>Example Value Schema</div> <div><pre>{ "status": "Internal Server Error"}</pre></div>	No links

DELETE

/user/deluser/{username}/{password}

Operation to help users delete their account after validating credentials.

Parameters

Try it out

Name	Description
<div>username * required</div> <div>string</div> <div>(path)</div>	<div>Joey</div>

Name

Description

password * required

string

(path)

2pizzas@JoeySpecial

Responses

Code	Description	Links
200	<div>Request Successful - Account Deleted!</div> <div>Media type</div> <div>application/json</div> <div>Controls Accept header.</div> <div>Example Value Schema</div> <div>{ "status": "Account Deleted Successfully!" }</div>	No links
404	<div>Bad Request</div> <div>Media type</div> <div>application/json</div> <div>Example Value Schema</div> <div>{ "status": "Account does not exist" }</div>	No links
500	<div>Internal Server Error</div> <div>Media type</div> <div>application/json</div> <div>Example Value Schema</div> <div>{ "status": "Internal Server Error" }</div>	No links

POST

/support_staff/announcement/{userid}/{category}/{query}

Operation to help make announcements to the class

Parameters

Try it out

Name	Description
<div><div>userid * required</div><div>integer</div><div>(path)</div></div>	<div>179</div>
<div><div>category * required</div><div>string</div><div>(path)</div></div>	<div>Python</div>
<div><div>query * required</div><div>string</div><div>(path)</div></div>	<div>There is an error in the GA 4 Q7.. Could you please look into i</div>

Request body

application/json

Example Value

Schema

```
{
  "Ticket_id": "Python/12347",
  "Created_by": 179,
  "Solved_by": -1,
  "Category": "Python",
  "Query": "Dear All, the live session is scheduled for 20th March, 2023 at 17:30 pm. Kindly join and make the most of teh oppurtunity.",
  "Created_at": "19th March 2023, 14:30 pm",
  "Solved_at": "-1",
  "IsResolved": true,
  "AddFAQ": false,
  "Pin": true,
  "Report": false,
  "Likes": 0
}
```

Responses

Code	Description	Links
200	<div>Request Successful - Ticket Added Successfully!</div> <div>Media type<div>application/json</div><div>Controls Accept header.</div></div> <div><div>Example Value</div><div>Schema</div><div><pre>{ "userid": 179, "Ticket_id": "Joey", "status": "Ticket Added Successfully!"}</pre></div></div>	No links
403	<div>Already exists</div> <div>Media type<div>application/json</div></div> <div><div>Example Value</div><div>Schema</div><div><pre>{ "status": "Ticket with same query already exists"}</pre></div></div>	No links
500	<div>Internal Server Error</div> <div>Media type<div>application/json</div></div> <div><div>Example Value</div><div>Schema</div><div><pre>{ "status": "Internal Server Error"}</pre></div></div>	No links

PUT

/support_staff/resolve_ticket/{ticket_id}

Operation to help support staff resolve queries.

Parameters

Try it out

Name	Description
------	-------------

ticket_id * required

Python_12345

string

(path)

Request body

application/json

Example Value	Schema
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
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19	19
20	20
21	21
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87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

```
{
  "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

Request Successful - Query Resolved!

No links

Media type

application/json

Controls Accept header.

Example Value	Schema
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
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13	13
14	14
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88	88
89	89
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91	91
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93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

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

404

Bad Request

No links

Media type

application/json

Example Value	Schema
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
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88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

```
{
  "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"

}

No links

PUT

/support_staff/pin_ticket/{ticket_id}

^

Operation to help pin important tickets.

Parameters

Try it out

Name

Description

ticket_id * required

string (path)

Python_12345

Request body

application/json

Example Value

Schema

{

"Ticket_id": "Python_12345",

"Pin": true

}

Responses

Code

Description

Links

200

Request Successful - Query Pinned!

No links

Code	Description	Links
	<div>Media type</div> <div>application/json</div> <div>Controls Accept header.</div> <div>Example Value Schema</div> <div><pre>{ "Ticket_id": "Python_12345", "status": "Query Pinned successfully!"}</pre></div>	
404	Bad Request	No links
	<div>Media type</div> <div>application/json</div> <div>Example Value Schema</div> <div><pre>{ "status": "Query with given id doesn't exist!"}</pre></div>	
500	Internal Server Error	No links
	<div>Media type</div> <div>application/json</div> <div>Example Value Schema</div> <div><pre>{ "status": "Internal Server Error"}</pre></div>	

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	<div>Python_12345</div>
string	
(path)	

Request body

application/json

Example Value

Schema

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

Responses

Code	Description	Links
200	<div>Request Successful - Query Reported!</div> <div><div>Media type</div><div>application/json</div><div>Controls Accept header.</div></div> <div><div>Example Value</div><div>Schema</div><div><pre>{ "Ticket_id": "Python_12345", "status": "Query Reported successfully!" }</pre></div></div>	No links
404	<div>Bad Request</div> <div><div>Media type</div><div>application/json</div></div> <div><div>Example Value</div><div>Schema</div><div><pre>{ "status": "Query with given id doesn't exist!" }</pre></div></div>	No links

Code	Description	Links
500	<div>Internal Server Error</div> <div>Media type</div> <div>application/json</div> <div>Example Value Schema</div> <div><pre>{ "status": "Internal Server Error" }</pre></div>	No links

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

Name	Description
<div>ticket_id * required</div> <div>string</div> <div>(path)</div>	<div>Python_12345</div>

Request body

application/json

Example Value Schema

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

Responses

Code	Description	Links
200	<div>Request Successful - Query Resolved!</div> <div>Media type<div>application/json</div>Controls Accept header.</div> <div>Example Value Schema<pre>{ "Ticket_id": "Python_12345", "status": "Query Added to FAQ Successfully!"}</pre></div>	No links
404	<div>Bad Request</div> <div>Media type<div>application/json</div></div> <div>Example Value Schema<pre>{ "status": "Query with given id doesn't exist!"}</pre></div>	No links
500	<div>Internal Server Error</div> <div>Media type<div>application/json</div></div> <div>Example Value Schema<pre>{ "status": "Internal Server Error"}</pre></div>	No links

DELETE

/admin/delete_ticket/{ticket_id}

Operation to help delete redundant / objectionable tickets.

Parameters

Try it out

</

Student

Endpoints for defining student operations

POST

/Student/create_ticket/{userid}/{category}/{query}

Operation to help create tickets for student queries

Parameters

Try it out

Name	Description
------	-------------

userid * required

integer
(path)

179

category * required

string
(path)

Python

query * required

string
(path)

There is an error in the GA 4 Q7.. Could you please look into i

Request body

application/json

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
}
```

Responses		
Code	Description	Links
200	<div>Request Successful - Ticket Added Successfully!</div> <div>Media type<div>application/json</div>Controls Accept header.</div> <div>Example Value Schema<pre>{ "userid": 179, "Ticket_id": "Joey", "status": "Ticket Added Successfully!"}</pre></div>	No links
403	<div>Already exists</div> <div>Media type<div>application/json</div></div> <div>Example Value Schema<pre>{ "status": "Ticket with same query already exists"}</pre></div>	No links
500	<div>Internal Server Error</div> <div>Media type<div>application/json</div></div> <div>Example Value Schema<pre>{ "status": "Internal Server Error"}</pre></div>	No links

PUT

/Student/like_ticket/{ticket_id}

^

Operation to help students like tickets of interest

Parameters

Try it out

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

Code	Description	Links
	<div>Media type</div> <div>application/json</div> <div>Example Value Schema</div> <div><pre>{ "status": "Internal Server Error" }</pre></div>	

FAQ

Endpoints for defining FAQ operations



POST

/FAQ/add_ticket/{ticket_id}

Operation to help add popular queries to the FAQ document.

Parameters

Try it out

Name	Description
<div>ticket_id * required</div> <div>string</div> <div>(path)</div>	<div>Python/12345</div>

Request body

application/json

Example Value Schema

```
{  
  "Ticket_id": "Python/12345",  
  "Query": "What is the quiz-1 syllabus?",  
  "Solution": "The Quiz-1 syllabus is Week 1-4."  
}
```

Responses

Code	Description	Links
200	<div>Request Successful - Ticket Added to FAQ Successfully!</div> <div>Media type<div>application/json</div><div>Controls Accept header.</div></div> <div><div>Example Value</div><div>Schema</div><div><pre>{ "Q_Id": 34, "status": "FAQ doc updated Successfully!"}</pre></div></div>	No links
403	<div>Already Exists</div> <div>Media type<div>application/json</div></div> <div><div>Example Value</div><div>Schema</div><div><pre>{ "status": "Query already exists in FAQs!"}</pre></div></div>	No links
500	<div>Internal Server Error</div> <div>Media type<div>application/json</div></div> <div><div>Example Value</div><div>Schema</div><div><pre>{ "status": "Internal Server Error"}</pre></div></div>	No links

Dashboard

Endpoints for defining dashboard operations



GET

/dashboard/tickets/{category}

^

←

Operation to help users access all the tickets created in the respective categories.

Parameters

Try it out

Name		Description
category * required		<div>Python</div>
string		
(path)		
Responses		
Code	Description	Links
200	<div>Request Successful - Tickets Returned!</div> <div>Media type</div> <div>application/json</div> <div>Controls Accept header.</div> <div>Example Value Schema</div> <div><pre>{ "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 }</pre></div>	No links
404	<div>Bad Request</div> <div>Media type</div> <div>application/json</div> <div>Example Value Schema</div> <div><pre>{ "status": "Tickets do not exist for the given category" }</pre></div>	No links
500	<div>Internal Server Error</div>	No links

Code	Description	Links
	<div>Media type</div> <div><div>application/json</div></div> <div>Example Value Schema</div> <div><pre>{ "status": "Internal Server Error" }</pre></div>	

Schemas ^

user {

UserId

[...]

UserName

[...]

UserType

[...]

Password

[...]

}

faq {

Q_Id

[...]

Query

[...]

Solution

[...]

Category

[...]

}



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