



RateMe

API User Guide & Documentation

Version 2.0

|| Group 1 ||

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Version Control

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v1.0	First release of document detailing datasets	15 March 2020
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1. RateMe Overview

This documentation entails detailed information of each RateMe APIs, its parameters and screenshot guides on how to call them. The RateMe API is organized around Representational State Transfer (REST). Our API also has predictable resource-oriented URLs, accepts form-encoded request bodies, returns JSON-encoded responses, and uses standard HTTP response codes.

In this documentation, we will walk you through on how to test our APIs using:

1. Python codes
2. [Postman](#). Postman is a collaboration platform for API development. You have to create an account if you do not have one. If you are unfamiliar with the Postman interface, you may want to click this [link](#) to explore.

You may wish to try any one of the methods above depending on your preference.


2. API Documentation

Shown below are all the existing APIs of RateMe and their corresponding descriptions.

	API Name	Methods	Description
1	state_fc()	Post	Record user status while user using the bot to return specific question
2	state_fcs(chatid)	Get	Get user status
3	put_state()	Put	Update user status to enable correct question to be post to the user
4	create_student()	Post	Insert record of student
5	create_course()	Post	Insert record of course
6	create_skill()	Post	Insert record of skill
7	create_rating()	Post	User able to record student rating
8	searchstudent(email)	Get	Retrieve students record in database
9	get_skill(skill)	Get	Retrieve skills record in database
10	get_course(course)	Get	Retrieve courses record in database
11	update_student()	Put	Enable edit of student record



12	get_ratedet()	Get	Enable delete of rating record
13	get_skillcount(skill)	Get	Enable to get the number of rating for each skill

 For the following subsections, please note that you have to follow suit the parameters and pay attention to the letter cases when making the API requests. For example, if the parameter is 'Skills', 'skills' will not be accepted and will lead to an error message.

2.1. state_fc()

URL	https://smtrmpp.herokuapp.com/state/			
Description	Record user status while user using the bot to return specific question			
Request				
Parameter	Type	Description	Mandatory	Example
chatid	Integer	User telegram chat identification	Yes	554647757
stage	String	Status of the user when using the bot	Yes	"Keying in input"
ratee_email	String	Student email	Yes	"weihui.tan.2018@sis.smu.edu.sg"
course_code	String	Course taken by both user and student	Yes	"SMT203"
skills	String	Skills taken by the student	Yes	"Leadership"
rater_email	String	User email	Yes	"meimei.liu.2018@sis.smu.edu.sg"



Response

Attribute	Type	Description	Example
message	String	Message to inform user of the status	"554647757 has been entered"
status	Integer	Status of the bot	200

Sample API Call & Response

Sample API call in Python

```
import requests
import json

PostStatus_url = "https://smtrmpp.herokuapp.com/state/"

params = {'chat_id': 554647757, 'stage': 'keying in input',
          'ratee_email': 'weihui.tan.2018@sis.smu.edu.sg', 'course_code':
          'SMT203', 'skills': 'Leadership', 'rater_email':
          'meimei.liu.2018@sis.smu.edu.sg'}

r = requests.post(url = PostStatus_url ,params=params).json()
```

Sample API Response

```
554647757 has been entered
200
```

Postman

Sample request:

The screenshot shows a Postman interface for a POST request to `https://smtrmpp.herokuapp.com/state/`. The request body is set to raw JSON, containing the following data:

```
{
  "chat_id": 554647757,
  "stage": "keying in input",
  "ratee_email": "weihui.tan.2018@sis.smu.edu.sg",
  "course_code": "SMT203",
  "skills": "Leadership",
  "rater_email": "meimei.liu.2018@sis.smu.edu.sg"
}
```

Sample response:

```
"554647757 has been entered"
```



2.2. state_fcs(chatid)

URL	https://smtrmpp.herokuapp.com/state/			
Description	Get user status			
Request				
Parameter	Type	Description	Mandatory	Example
chatid	Integer	User telegram chat identification	No	554647757
Response				
Attribute	Type	Description	Type	Example
user_status	Json	User status		[{ "chat_id": 615997708, "course_code ": "d", "rate_skill1 ": "d", "ratee_email ": "d", "rater_email 1": "d", "stage": "nil" }]
status	Integer	Status of request		200

Sample API Call & Response

Sample API call in Python

```
import requests
import json

GetStatus_url = "https://smtrmpp.herokuapp.com/state/"
```

```
r = requests.get(url = GetStatus_url).json()
```

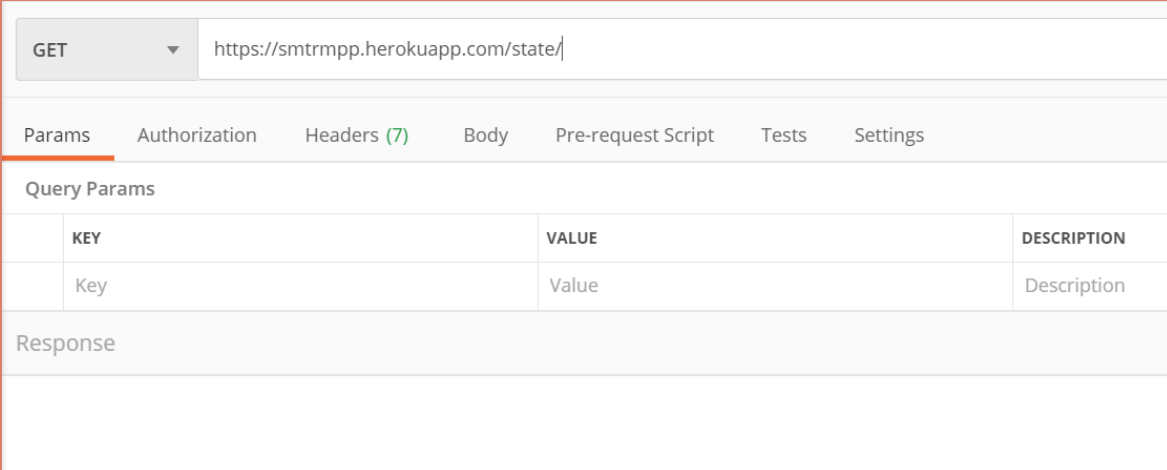
Sample API Response

```
[
  {
    "chat_id": 615997708,
    "course_code": "d",
    "rate_skill1": "d",
    "ratee_email": "d",
    "rater_email1": "d",
    "stage": "nil"
  },
  {
    "chat_id": 518574620,
    "course_code": "d",
    "rate_skill1": "d",
    "ratee_email": "d",
    "rater_email1": "d",
    "stage": "nil"
  },
  {
    "chat_id": 205101384,
    "course_code": "d",
    "rate_skill1": "d",
    "ratee_email": "d",
    "rater_email1": "d",
    "stage": "nil"
  },
  {
    "chat_id": 554647557,
    "course_code": "d",
    "rate_skill1": "d",
    "ratee_email": "d",
    "rater_email1": "d",
    "stage": "nil"
  },
  {
    "chat_id": 635156898,
    "course_code": "d",
    "rate_skill1": "d",
    "ratee_email": "d",
    "rater_email1": "d",
    "stage": "nil"
  }
]
```


200

Postman

Sample request:



The screenshot shows the Postman interface for a GET request to `https://smtrmpp.herokuapp.com/state/`. The interface includes tabs for Params, Authorization, Headers (7), Body, Pre-request Script, Tests, and Settings. The 'Query Params' section contains a table with the following data:

KEY	VALUE	DESCRIPTION
Key	Value	Description

Below the table is a section labeled 'Response' which is currently empty.

Sample response:

```
[
  {
    "chat_id": 615997708,
    "course_code": "d",
    "rate_skill1": "d",
    "ratee_email": "d",
    "rater_email1": "d",
    "stage": "nil"
  },
  {
    "chat_id": 518574620,
    "course_code": "d",
    "rate_skill1": "d",
    "ratee_email": "d",
    "rater_email1": "d",
    "stage": "nil"
  }
],
```

```
[
  {
    "chat_id": 554647557,
    "course_code": "d",
    "rate_skill1": "d",
    "ratee_email": "d",
    "rater_email1": "d",
    "stage": "nil"
  },
  {
    "chat_id": 635156898,
    "course_code": "d",
    "rate_skill1": "d",
    "ratee_email": "d",
    "rater_email1": "d",
    "stage": "nil"
  }
]
```

2.3. put_state()

URL	https://smtrmpp.herokuapp.com/state/			
Description	Update user status to enable correct question to be post to the user			
Request				
Parameter	Type	Description	Mandatory	Example
chatid	Integer	User telegram chat identification	Yes	554647757
stage	String	Status of the user when using the bot	Yes	"Keying in rate input own email"
ratee_email	String	Student email	Yes	"weihui.tan.2018@sis.smu.edu.sg"
course_code	String	Course taken by both user and student	Yes	"SMT203"
skills	List	List of skills	Yes	["Leadership", "Python"]



rater_email	String	User email	Yes	"meimei.liu.2018@sis.smu.edu.sg"
-------------	--------	------------	-----	----------------------------------

Response

Attribute	Type	Description	Example
message	String	Message to inform user	"554647757 has been update"
status	Integer	Status of the system	200

Sample API Call & Response

Sample API call in Python

```
import requests
import json

PutStatus_url = "https://smtrmpp.herokuapp.com/state/"

params = {'chat_id': 554647757, 'stage': 'keying in rate
input own email', 'ratee_email':
'weihui.tan.2018@sis.smu.edu.sg', 'course_code': 'SMT203',
'skills': ['Leadership', 'Python'], 'rater_email':
'meimei.liu.2018@sis.smu.edu.sg'}

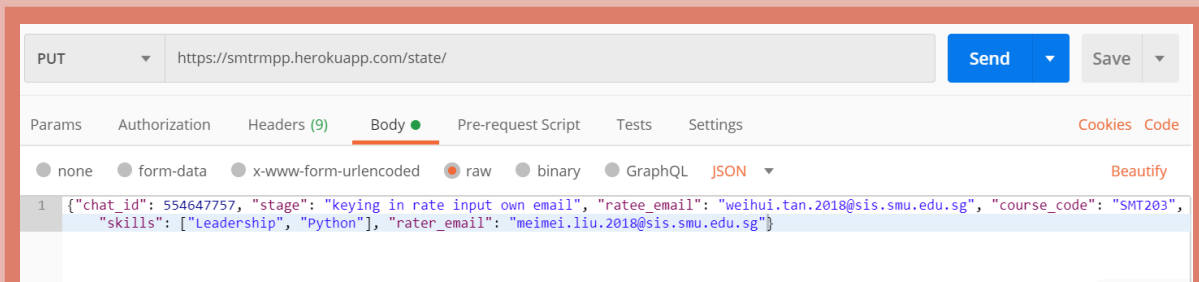
r = requests.put(url = PutStatus_url, params=params).json()
```

Sample API Response

```
554647757 has been update
200
```

Postman

Sample request:



Sample response:

"554647757 has been updated"

2.4. create_student()

URL	https://smtrmpp.herokuapp.com/student/			
Description	Insert record of student			
Request				
Parameter	Type	Description	Mandatory	Example
email	String	Student email	Yes	"weihui.tan.2018@sis.smu.edu.sg"
fullname	String	Full name of student	Yes	"Tan Wei Hui"
courses	List	Course that the student has taken	Yes	["SMT203", "IS110"]
Response				
Attribute	Type	Description	Example	
Message	String	Message to inform the user	"weihui.tan.2018@sis.smu.edu.sg has been added to the database"	
status	Integer	Status of the request	200	
Sample API Call & Response				



Sample API call in Python

```
import requests
import json

Poststudent_url = "https://smtrmpp.herokuapp.com/student/"

params = {'email': 'weihui.tan.2018@sis.smu.edu.sg',
          'fullname': 'Tan Wei Hui', 'courses': ["SMT203", "IS110"]}

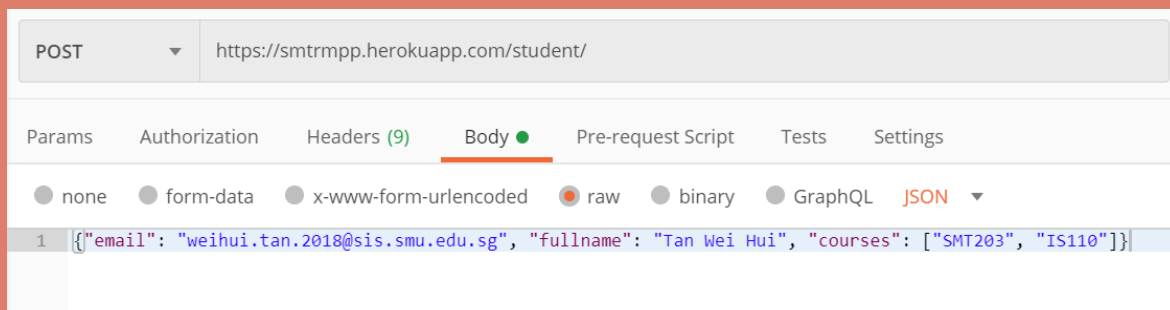
r = requests.post(url = Poststudent_url, params=params).json()
```

Sample API Response

```
weihui.tan.2018@sis.smu.edu.sg has been added
200
```

Postman

Sample request:



Sample response:

```
"weihui.tan.2018@sis.smu.edu.sg has been added to the database"
```

2.5. create_course()

URL	<code>https://smtrmpp.herokuapp.com/course/</code>
Description	Insert record of course



Request				
Parameter	Type	Description	Mandatory	Example
course_code	String	Course code of the course	Yes	"SMT203"
course_name	String	Course name of the course	Yes	"Smart City Systems and Management"

Response			
Attribute	Type	Description	Example
message	String	Message to inform the user	"SMT203 has been added to the database"
status	Integer	Status of the request	200

Sample API Call & Response

Sample API call in Python

```
import requests
import json

Postcourse_url= "https://smtrmpp.herokuapp.com/course/"

params = {'course_code': 'SMT203', 'course_name': 'Smart City Systems and Management'}

r = requests.post(url = Postcourse_url,params=params).json()
```

Sample API Response

```
SMT203 has been added to the database
200
```

Postman

Sample request:



POST ▼ `https://smtrmpp.herokuapp.com/course/`

Params Authorization Headers (11) **Body** ● Pre-request Script Tests Settings

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

```
1 {"course_code": "SMT203", "course_name": "Smart City Systems and Management"}
```

Sample response:

```
"SMT203 has been added to the database"
```

2.6. create_skill()

URL	<code>https://smtrmpp.herokuapp.com/skill/</code>			
Description	Insert record of skill			
Request				
Parameter	Type	Description	Mandatory	Example
skill_name	String	Skill name of the skill enter by the user	Yes	"Leadership"
skill_type	String	Skill type be it soft skill or hard skill	Yes	"Soft skill"
Response				
Attribute	Type	Description	Example	
message	String	Message to inform the user	"Leadership has been added to the database"	
status	Integer	Status of the request	200	
Sample API Call & Response				
Sample API call in Python				
<pre>import requests</pre>				



```
import json

Postskill_url= "https://smtrmpp.herokuapp.com/skill/"

params = {'skill_name': 'Leadership', 'skill_type': 'Soft
skill'}

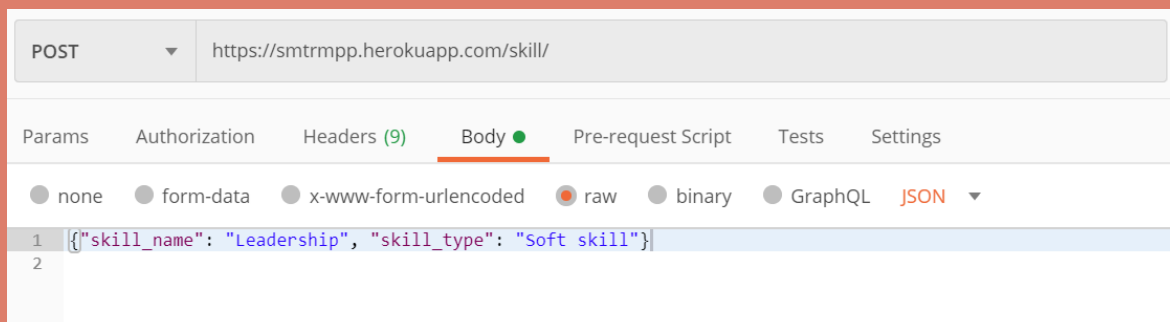
r = requests.post(url = Postskill_url,params=params).json()
```

Sample API Response

```
Leadership has been added to the database
200
```

Postman

Sample request:



Sample response:

```
"Leadership has been added to the database"
```

2.7. create_rating()

URL	https://smtrmpp.herokuapp.com/rating/
Description	User able to record student rating
Request	



Parameter	Type	Description	Mandatory	Example
ratee_email	String	Student email	Yes	"weihui.tan.2018@sis.smu.edu.sg"
course_code	String	Course taken by the student	Yes	"SMT 203"
skills	String	Skills that the student possess (max 3)	Yes	["Leadership", "Communication"]
rater_email	String	User email	Yes	"meimei.liu.2018@sis.smu.edu.sg"

Response

Attribute	Type	Description	Example
message	String	Message that inform the user	"Rating for weihui.tan,2018@sis.smu.edu.sg has been recorded"
status	Integer	Status of the request	200

Sample API Call & Response

Sample API call in Python

```
import requests
import json

PostRating_url = "https://smtrmpp.herokuapp.com/rating/"

params = {'ratee_email': 'weihui.tan.2018@sis.smu.edu.sg',
          'course_code': 'SMT 203', 'skills':
          ["Leadership", "Communication"], rater_email:
          'meimei.liu.2018@sis.smu.edu.sg' }

r = requests.post(url = PostRating_url, params=params).json()
```

Sample API Response

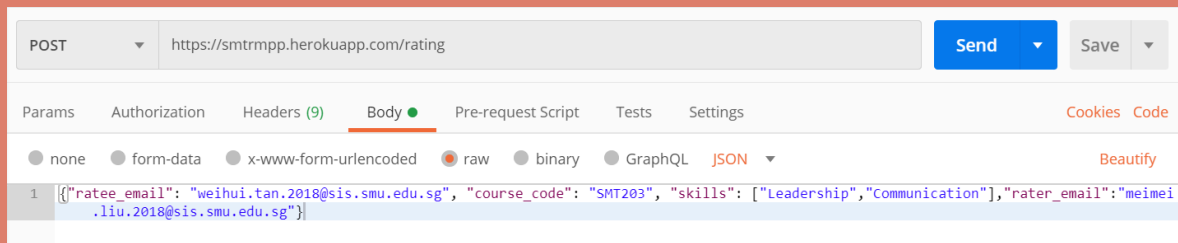
```
Rating for weihui.tan.2018@sis.smu.edu.sg has been recorded
```



200

Postman

Sample request:



Sample response:

```
"Rating for weihui.tan.2018@sis.smu.edu.sg has been recorded"
```

2.8. searchstudent(email)

URL	https://smtrmpp.herokuapp.com/student/			
Description	Retrieve students record in database			
Request				
Parameter	Type	Description	Mandatory	Example
email	String	Email of student	Yes	"weihui.tan.2018@sis.smu.edu.g"
Response				
Attribute	Type	Description	Example	
result	Json	Result of the request	<pre>{ "courses": ["SMT203", "IS110"], "email": "weihui.tan.201</pre>	



			8@sis.smu.edu.sg", "fullname": "Tan Wei Hui", "id": 27, "rating": [], "skills": [] }
status	Integer	Status of the request	200

Sample API Call & Response

Sample API call in Python

```
import requests
import json

GetStudent_url =
"https://smtrmpp.herokuapp.com/state/?email=weihui.tan.2018@sis.smu.edu.sg"

r = requests.get(url = GetStudent_url).json()
```

Sample API Response

```
{
  "courses": [
    "SMT203",
    "IS110"
  ],
  "email": "weihui.tan.2018@sis.smu.edu.sg",
  "fullname": "Tan Wei Hui",
  "id": 27,
  "rating": [],
  "skills": []
}

200
```

Postman



Sample request:

GET	https://smtrmpp.herokuapp.com/student/?email=weihui.tan.2018@sis.smu.edu.sg					
Params	Authorization	Headers (7)	Body	Pre-request Script	Tests	Settings
Query Params						
	KEY	VALUE	DESCRIPTION			
<input checked="" type="checkbox"/>	email	weihui.tan.2018@sis.smu.edu.sg				
	Key	Value	Description			

Sample response:

```
{
  "courses": [
    "SMT203",
    "IS110"
  ],
  "email": "weihui.tan.2018@sis.smu.edu.sg",
  "fullname": "Tan Wei Hui",
  "id": 27,
  "rating": [],
  "skills": []
}
```

2.9. get_skill(skill)

URL	https://smtrmpp.herokuapp.com/skill/			
Description	Retrieve skills record in database			
Request				
Parameter	Type	Description	Mandatory	Example
skill_name	String	Skill that the user input	Yes	"Leadership"
Response				
Attribute	Type	Description	Example	
result	Json	Result of the request	[{	



			"skill_name": "Leadership", "skill_type": "Soft skill" }]
status	Integer	Status of the request	200

Sample API Call & Response

Sample API call in Python

```
import requests
import json

GetSkill_url =
"https://smtrmpp.herokuapp.com/skill/?skill_name=Leadership"

r = requests.get(url = GetSkill_url).json()
```

Sample API Response

```
[{
  "skill_name": "Leadership",
  "skill_type": "Soft skill"
}]
200
```

Postman

Sample request:

GET ▼ https://smtrmpp.herokuapp.com/skill/?skill_name=Leadership

Params ● Authorization Headers (7) Body Pre-request Script Tests Settings

Query Params

	KEY	VALUE	DESCRIPTION
<input checked="" type="checkbox"/>	skill_name	Leadership	
	Key	Value	Description



Sample response:

```
{
  "skill_name": "Leadership",
  "skill_type": "Soft skill"
}
```

2.10. get_course(course)

URL	https://smtrmpp.herokuapp.com/course/			
Description	Retrieve courses record in database			
Request				
Parameter	Type	Description	Mandatory	Example
course_code	String	Course code that the user input	Yes	"SMT203"
Response				
Attribute	Type	Description	Example	
result	Json	Result of the request	<pre>{ "course_code": "SMT203", "course_name": "Smart City Systems and Management", "id": 26 }</pre>	
status	Integer	Status of request	200	

Sample API Call & Response

Sample API call in Python

```
import requests
import json
```

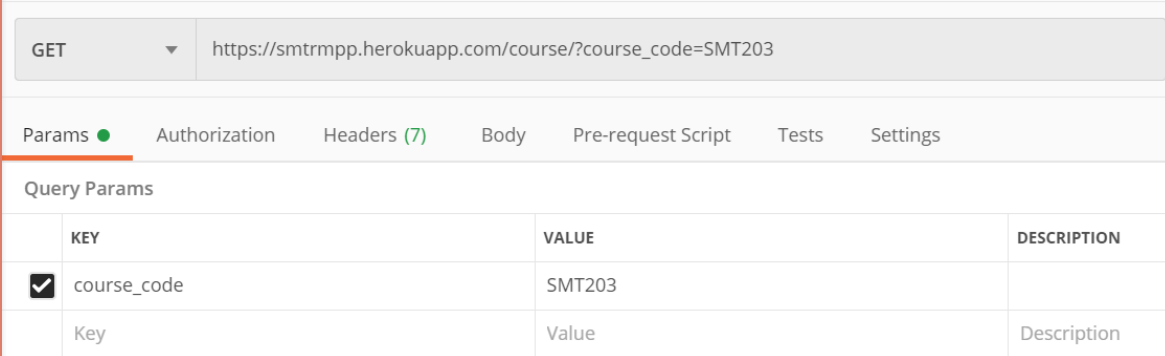
```
GetCourse_url =  
"https://smtrmpp.herokuapp.com/course/?course_code=SMT203"  
  
r = requests.get(url = GetCourse_url).json()
```

Sample API Response

```
{  
  "course_code": "SMT203",  
  "course_name": "Smart City Systems and Management",  
  "id": 26  
}  
  
200
```

Postman

Sample request:



The screenshot shows the Postman interface for a GET request. The URL is `https://smtrmpp.herokuapp.com/course/?course_code=SMT203`. The 'Params' tab is active, showing a table of query parameters.

KEY	VALUE	DESCRIPTION
<input checked="" type="checkbox"/> course_code	SMT203	
Key	Value	Description

Sample response:

```
{  
  "course_code": "SMT203",  
  "course_name": "Smart City Systems and Management",  
  "id": 26  
}
```



2.11. update_student()

URL	https://smtrmpp.herokuapp.com/student/			
Description	Update student courses			
Request				
Parameter	Type	Description	Mandatory	Example
email	String	Email of the student	Yes	"weihui.tan.2018@sis.smu.edu.sg"
course	List	Course that the student has taken	Yes	["SMT203","SMT111"]
Response				
Attribute	Type	Description	Type	Example
result	Json	Result of the request		{ "courses": ["SMT111", "IS110"], "email": "weihui.tan.2018@sis.smu.edu.sg", "fullname": "Tan Wei Hui", "id": 1, "rating": [], "skills": [] }
status	Integer	Status of the request		200

Sample API Call & Response

Sample API call in Python

```
import requests
import json

GetStatus_url = "https://smtrmpp.herokuapp.com/student/"

params = {'email': 'weihui.tan.2018@sis.smu.edu.sg',
```



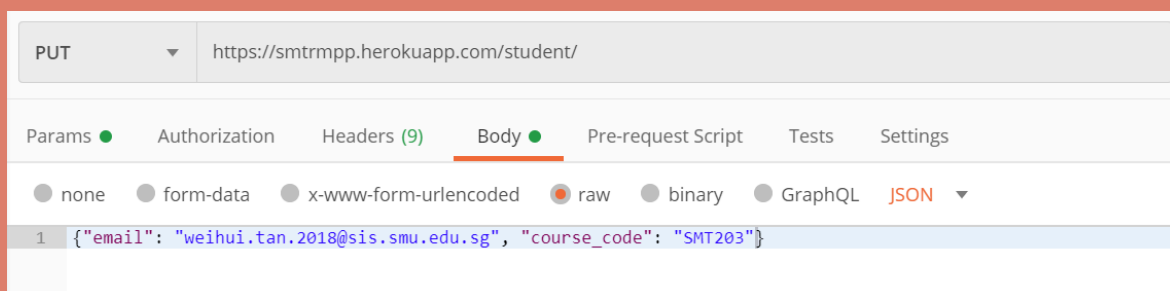

```
'course_code': 'SMT203'}  
  
r = requests.put(url = GetStatus_url, Params = Params).json()
```

Sample API Response

```
{  
  "courses": [  
    "SMT111",  
    "IS110"  
  ],  
  "email": "weihui.tan.2018@sis.smu.edu.sg",  
  "fullname": "Tan Wei Hui",  
  "id": 1,  
  "rating": [],  
  "skills": []  
}  
  
200
```

Postman

Sample request:



Sample response:

```
{
  "courses": [
    "SMT111",
    "IS110"
  ],
  "email": "weihui.tan.2018@sis.smu.edu.sg",
  "fullname": "Tan Wei Hui",
  "id": 1,
  "rating": [],
  "skills": []
}
```

2.12. get_ratedet()

URL	https://smtrmpp.herokuapp.com/ratedel/			
Description	Enable delete of rating record			
Request				
Parameter	Type	Description	Mandatory	Example
Response				
Attribute	Type	Description	Example	
result	Json	Result of the request	{}	
status	Integer	Status of the request	200	

Sample API Call & Response

Sample API call in Python

```
import requests
import json

GetRatedel_url = "https://smtrmpp.herokuapp.com/ratedel/"

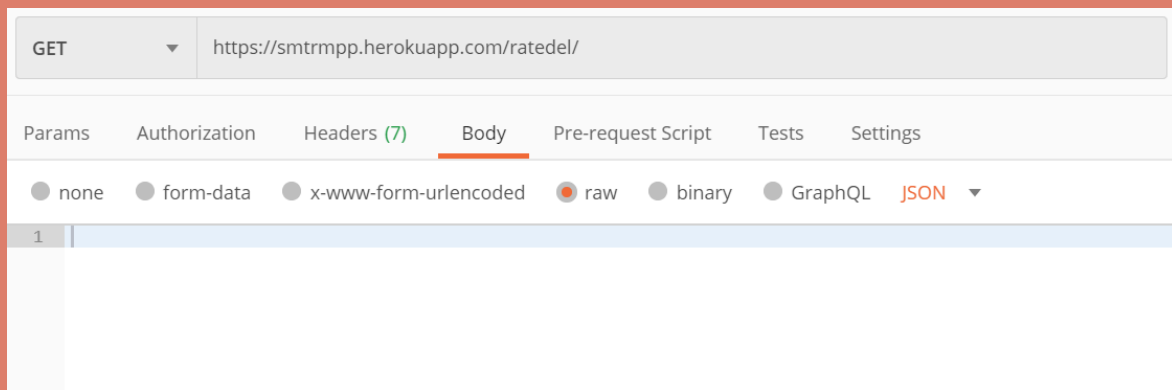
r = requests.get(url = GetRatedel_url ).json()
```

Sample API Response

```
{}
```

Postman

Sample request:



Sample response:

```
{}
```

2.13. get_skillcount(skill)

URL	https://smtrmpp.herokuapp.com/skillcount/			
Description	Enable to get the number of rating for each skill			
Request				
Parameter	Type	Description	Mandatory	Example
skill_name	String	Skill input by the user	Yes	“Leadership”
Response				
Attribute	Type	Description	Example	
result	Integer	Result of the request	2	

Sample API Call & Response

Sample API call in Python

```
import requests
import json

GetSkillcount_url =
"https://smtrmpp.herokuapp.com/skillcount/?skill_name=Leadership"

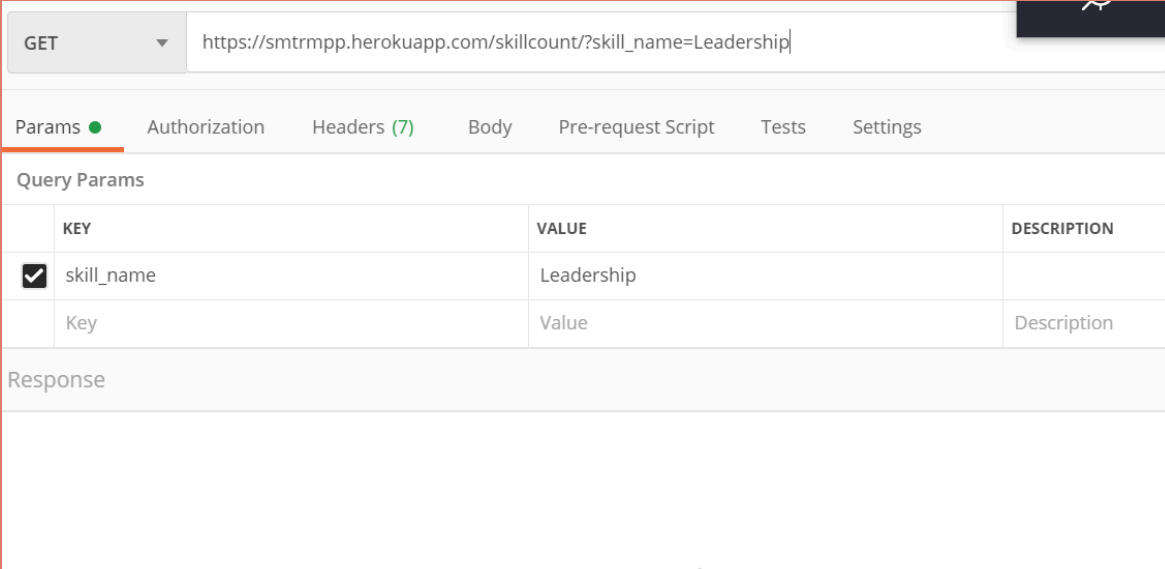
r = requests.get(url = GetSkillcount_url).json()
```

Sample API Response

```
2
```

Postman

Sample request:



GET https://smtrmpp.herokuapp.com/skillcount/?skill_name=Leadership

Params ● Authorization Headers (7) Body Pre-request Script Tests Settings

Query Params

	KEY	VALUE	DESCRIPTION
<input checked="" type="checkbox"/>	skill_name	Leadership	
	Key	Value	Description

Response

Sample response:



2



3. Error Handling

If you have followed the parameters exactly and made the API request correctly, the HTTPS Status Code will be 200. Should you encounter any errors in the output, please refer to the table below for more information.

HTTP Status Code	Description
200 - OK	Your request was successfully carried out.
400 - Bad Request	Your request was processed with an error from your side. The server is unable to understand the request. This could happen because of: <ul style="list-style-type: none"> • Inappropriate formatting of parameter values • Missing values for non-nullable parameters • Undefined parameter
404 - Not Found	Your request resource could not be found. This could have happened because: <ul style="list-style-type: none"> • Resource might be removed • Resource might have moved to another place
405 - Method Not Allowed	The method specified in your request is not allowed for the resource identified by the request url. (e.g. Using GET when the method specified is POST.)
408 - Request Timeout	You cannot produce a request within the time frame that the server is prepared to wait. You may repeat the request at a later time.
429 - Too Many Requests	You have sent too many requests in the given amount of time and reached your limit. Server is unable to process those requests within a short period of time. If any of your requests time out after you've reached the limit, those requests could still be considered open and continue to slow your connection. Feel free to contact our API development team at rateme.developer@gmail.com for assistance.
500 - Internal Server Error	Your request failed due to a server error. Please try again later.
503 - Service Unavailable	The server is currently unable to handle the request due to a temporary overloading or maintenance of the server which will be alleviated after some delay. You may choose to resend the request again at a later time.



4. Appendix

The RateMe database stores a set of hard and soft skills as shown below in which the user can choose to input. In our database, the skill names are mapped to the corresponding skill types (soft skill type / hard skill type).

SKILLS (not exhaustive)	
Hard Skills	Soft Skills
Python	Critical thinking skills
Javascript	Communication
Linear Algebra	Time-Management
Analytical Reasoning	Helpful
QGIS	Caring
Data Manipulation	Intuitive
Flask	Forward-thinking
Django	Leadership
Object-Oriented Programming	Cooperative
Algorithms	Sociable
Typing Speed	Public speaking
Mathematical Skills	Diplomatic
Ruby	Patient
HTML	Empathy
CSS	Logical Thinking
Java	Confidence
Supervised Learning	Ability to work under stress
Unsupervised Learning	Multi-tasking
Microsoft Excel	Teamwork
VBA	Persuasion
C++	Negotiation
R	Writing skills



SAS Enterprise Guide	Adaptable
Data Visualisation	Open-mindedness
Adobe Illustrator	Creative
Adobe Photoshop	Innovative
Web Design	Willingness to learn
SPSS	Enthusiastic
PHP	Friendly
UX Design	Considerate
Video Production	Independence
Blockchain	Perseverance
Cloud Computing	Motivating
Sales	Resilience
Marketing	Punctuality
Business Analysis	Organised
Artificial Intelligence	Collaborative



Mentioned below is a table of courses and their corresponding course codes stored in our database. Each course code is mapped to its corresponding course name.

CourseCode (not exhaustive)	
Course Code	Course Name
SMT111	Programming for Smart City Solutions
SMT112	Sustainable Digital Cities
SMT201	Geospatial Analytics for Urban Planning
SMT202	Analytics Applications for Smart Living
SMT203	Smart City Systems and Management
ANLY104	Analytics Foundation
IS110	Information Systems and Innovation
IS112	Data Management
IS211	Interaction Design and Prototyping
CS440	Foundations to Cybersecurity
COR-1305	Spreadsheet Modelling and Analytics
COR3301	Ethics and Corporate Social Responsibility
COR-IS1702	Computational Thinking
COR-COMM1304	Management Communication
POSC101	Introduction to Public Policy
MGMT003	Business, Govt and Society
OBHR001	Leadership and Team-Building
ECON001	Introductory Economics
MATH001	Calculus
WRIT001	Programme in Writing & Reasoning
STAT101	Introductory Statistics