

REST

It is an architectural guideline to develop Web API.

REST API

The API which is developed using REST is known as REST API / RESTful API.

Add/Update Student

Name:

Email:

Password:

Save

Show Student Information

| ID | Name | Email | Password | Action |
|----|-------|-----------------|-----------|-----------------------------------|
| 65 | Raj | raj@gmail.com | sonam1234 | <div>Edit</div> <div>Delete</div> |
| 66 | Rahul | rahul@gmail.com | rahul1234 | <div>Edit</div> <div>Delete</div> |



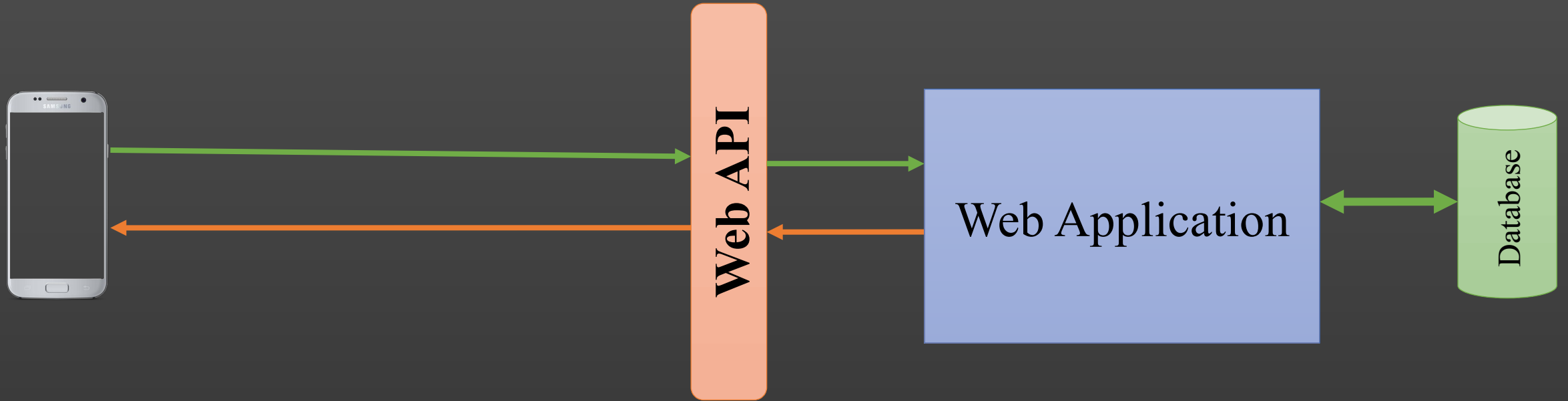
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REST Web API

Web Application



How REST Web API Works



- Client makes HTTP Request to API
- API will communicate to Web Application/Database (If needed)
- Web Application/Database provides required data to API
- API returns Response Data to Client

Note – Json Data, XML Data

REST API

CRUD Operations:-

| Operation | HTTP Methods | Description |
|-----------|--------------|--|
| Create | POST | Creating/Posting/Inserting Data |
| Read | GET | Reading/Getting/Retrieving Data |
| Update | PUT, PATCH | Updating Data Complete Update - PUT Partial Update - PATCH |
| Delete | DELETE | Deleting Data |

Students API Resource

http://geekyshows.com/api/students



The diagram shows three brackets under the URL 'http://geekyshows.com/api/students'. The first bracket, labeled '1', spans 'http://geekyshows.com'. The second bracket, labeled '2', spans '/api/'. The third bracket, labeled '3', spans '/students'.

1. Base URL

2. Naming Convention

3. Resource of API or End-Point

Request - Response

- Request for All Students

Request

GET: /api/students

Response

```
[  
  {"id":1, "name": "Rahul"},  
  {"id":2, "name" : "Sonam"},  
  ....  
]
```

Request - Response

- Request for One Student having id = 1

Request

GET: /api/students/1

Response

```
[  
  {"id":1, "name": "Rahul" }  
]
```


Request - Response

- Request Posting/Creating/Inserting Data

Request

POST: api/students

{"name": "Sumit"}

Response

{"id":11, "name": "Sumit"}

Request - Response

- Request for Updating Data, id = 1

Request

PUT or PATCH: /api/students/1

`{"name": "Raj" }`

Response

```
[  
  {"id":1, "name": "Raj" }  
]
```

Request - Response

- Request for Deleting Data, id = 1

Request

DELETE: /api/students/1

Response

{"id":1, "name": "Raj" }

RESTful API

<http://geekyshows.com/api/students>

| | |
|--------|-----------------|
| GET | /api/students |
| GET | /api/students/1 |
| POST | /api/students |
| PUT | /api/students/1 |
| PATCH | /api/students/1 |
| DELETE | /api/students/1 |