**Foreign Currency API Documentation**

Adapun API yang disediakan adalah:

Aplikasi dibagi menjadi 3 modul yaitu

1. Modul Currency

modul ini merupakan modul yang digunakan dalam mengatur konten untuk daftar mata uang. Modul ini disimpan pada tabel currencies, yaitu tabel yang digunakan sebagai tabel master.

2. Modul Currency Pair

Modul ini digunakan untuk mengatur konten dalam menambahkan daftar dalam pertukaran mata uang.

3. Modul Curency Exchange Rate

Modul ini merupakan modul yang digunakan dalam menyimpan informasi tentang pertukaran uang dengan mata uang asing.

Domain : [http://127.0.0.1:8000](http://127.0.0.1:8000/) (apabila dijalankan pada local)

|  |  |  |  |
| --- | --- | --- | --- |
| No | Module | Endpoint | Contoh Output |
| 1 | Currency | [GET] /api/v1/currencies | - request :  http://127.0.0.1:8000/api/v1/currencies  - output :  {  "count": 1,  "next": null,  "previous": null,  "results": [  {  "id": 1,  "name": "IDR",  "description": "Indonesia Rupiah",  "deleted\_at": null  }  ]  } |
| 2 |  | [POST] /api/v1/currencies | Parameter:  name : USD  description : US Dollar  Request:  http://127.0.0.1:8000/api/v1/currencies/  Output:  {  "id": 2,  "name": "USD",  "description": "US Dollar",  "deleted\_at": null  }  error validation:  {  "name": [  "This field is required."  ]  } |
| 3 |  | [DELETE]  /api/v1/currencies/pk | Parameter = id (Primari key)  contoh:  - request :  http://127.0.0.1:8000/api/v1/currencies/2  - output:  record yang dihapus akan dikasi flag dihapus yaitu nilai deleted at akan disi.  {  "id": 2,  "name": "USD",  "description": "US Dollar",  "deleted\_at": "2018-07-31T16:36:27.328753"  } |
| 4. |  | [GET]  /api/v1/currencies/pk | Request:  http://127.0.0.1:8000/api/v1/currencies/2  Output:  - jika record ada  {  "id": 2,  "name": "USD",  "description": "US Dollar",  "deleted\_at": null  }  -jika record tidak ada  {  "detail": "Not found."  } |
| 5 |  | [PUT]  /api/v1/currencies/pk/ | Request  http://127.0.0.1:8000/api/v1/currencies/5/  Parameter:  name : GBP  description : Pound Sterling  Output:  origin:  {  "id": 5,  "name": "GBP",  "description": "",  "deleted\_at": null  }  updated:  {  "id": 5,  "name": "GBP",  "description": "Pound Sterling",  "deleted\_at": null  } |
| 6 | Currency Pair | [GET] /api/v1/currency-pairs/ | Request:  http://127.0.0.1:8000/api/v1/currency-pairs/  Output:  {  "count": 1,  "next": null,  "previous": null,  "results": [  {  "id": 1,  "from\_id": {  "id": 4,  "name": "USD",  "description": "US Dollar",  "deleted\_at": null  },  "to\_id": {  "id": 7,  "name": "IDR",  "description": "Indonesia Rupiah",  "deleted\_at": null  },  "deleted\_at": null  }  ] |
| 7 |  | [POST] /api/v1/currency-pairs | - Request  http://127.0.0.1:8000/api/v1/currency-pairs/  contoh Parameter:  from\_id : 4  to\_id : 5  -Output  tidak valid  {  "from\_id": [  "Invalid pk \"10\" - object does not exist."  ],  "to\_id": [  "Invalid pk \"23\" - object does not exist."  ]  }  valid  {  "id": 2,  "from\_id": {  "id": 4,  "name": "USD",  "description": "US Dollar",  "deleted\_at": null  },  "to\_id": {  "id": 5,  "name": "GBP",  "description": "Pound Sterling",  "deleted\_at": null  },  "deleted\_at": null  } |
| 8 |  | [DELETE]  /api/v1/currency-pairs/pk/ | -Request  http://127.0.0.1:8000/api/v1/currency-pairs/2/  -Output  {  "id": 2,  "from\_id": {  "id": 4,  "name": "USD",  "description": "US Dollar",  "deleted\_at": null  },  "to\_id": {  "id": 5,  "name": "GBP",  "description": "Pound Sterling",  "deleted\_at": null  },  "deleted\_at": "2018-07-31T17:09:30.219122"  } |
| 9 |  | [GET]  /api/v1/currency-pairs/pk/ | Request:  http://127.0.0.1:8000/api/v1/currency-pairs/2/  Output:  {  "id": 2,  "from\_id": {  "id": 4,  "name": "USD",  "description": "US Dollar",  "deleted\_at": null  },  "to\_id": {  "id": 5,  "name": "GBP",  "description": "Pound Sterling",  "deleted\_at": null  },  "deleted\_at": "2018-07-31T17:09:30.219122"  } |
| 10 |  | [PUT]  /api/v1/currency-pair/pk | Request:  <http://127.0.0.1:8000/api/v1/currency-pairs/2/>  Contoh:  update nilai deleted\_at = ‘’  Output:  {  "id": 2,  "from\_id": {  "id": 4,  "name": "USD",  "description": "US Dollar",  "deleted\_at": null  },  "to\_id": {  "id": 5,  "name": "GBP",  "description": "Pound Sterling",  "deleted\_at": null  },  "deleted\_at": null  } |
| 11 | Currency Exchange Rate | [GET] /api/v1/currency-exchange-rates/ | Request:  http://127.0.0.1:8000/api/v1/currency-exchange-rates/  Output:  {  "count": 1,  "next": null,  "previous": null,  "results": [  {  "id": 1,  "currency\_pair\_id": {  "id": 1,  "from\_id": {  "id": 4,  "name": "USD",  "description": "US Dollar",  "deleted\_at": null  },  "to\_id": {  "id": 7,  "name": "IDR",  "description": "Indonesia Rupiah",  "deleted\_at": null  },  "deleted\_at": null  },  "exchange\_date": "2018-07-31T17:15:26",  "rate": 0.7609,  "deleted\_at": null  }  ]  } |
| 12 |  | [POST] /api/v1/currency-exchange-rates | Request:  http://127.0.0.1:8000/api/v1/currency-exchange-rates/  Parameter:  currency\_pair\_id : 2  exchange\_date : 2018-07-31T17:19:30.210349  rate : 3.234  Output:  {  "id": 2,  "currency\_pair\_id": {  "id": 2,  "from\_id": {  "id": 4,  "name": "USD",  "description": "US Dollar",  "deleted\_at": null  },  "to\_id": {  "id": 5,  "name": "GBP",  "description": "Pound Sterling",  "deleted\_at": null  },  "deleted\_at": null  },  "exchange\_date": "2018-07-31T17:19:30.210349",  "rate": 3.234,  "deleted\_at": null  } |
| 13 |  | [DELETE]  /api/v1/currency-exchange-rates/pk/ | Request:  http://127.0.0.1:8000/api/v1/currency-exchange-rates/2/  Output:  {  "id": 2,  "currency\_pair\_id": {  "id": 2,  "from\_id": {  "id": 4,  "name": "USD",  "description": "US Dollar",  "deleted\_at": null  },  "to\_id": {  "id": 5,  "name": "GBP",  "description": "Pound Sterling",  "deleted\_at": null  },  "deleted\_at": null  },  "exchange\_date": "2018-07-31T17:19:30.210349",  "rate": 3.234,  "deleted\_at": "2018-07-31T17:19:30.210349"  } |
| 14 |  | [GET]  /api/v1/currency-exchange-rates/pk/ | Request:  http://127.0.0.1:8000/api/v1/currency-exchange-rates/2/  Output:  {  "id": 2,  "currency\_pair\_id": {  "id": 2,  "from\_id": {  "id": 4,  "name": "USD",  "description": "US Dollar",  "deleted\_at": null  },  "to\_id": {  "id": 5,  "name": "GBP",  "description": "Pound Sterling",  "deleted\_at": null  },  "deleted\_at": null  },  "exchange\_date": "2018-07-31T17:19:30.210349",  "rate": 3.234,  "deleted\_at": "2018-07-31T17:19:30.210349"  } |
| 15 |  | [PUT]  /api/v1/currency-exchange-rates/ | Request:  <http://127.0.0.1:8000/api/v1/currency-exchange-rates/2/>  Contoh: update nilai deleted\_at menjadi null  Output:  {  "id": 2,  "currency\_pair\_id": {  "id": 2,  "from\_id": {  "id": 4,  "name": "USD",  "description": "US Dollar",  "deleted\_at": null  },  "to\_id": {  "id": 5,  "name": "GBP",  "description": "Pound Sterling",  "deleted\_at": null  },  "deleted\_at": null  },  "exchange\_date": "2018-07-31T17:19:30.210349",  "rate": 3.234,  "deleted\_at": null  } |
| 16 |  | [GET]  /api/v1/currency-exchange-rates/get-by-date/yyyy-mm-dd/ | Request:  http://127.0.0.1:8000/api/v1/currency-exchange-rates/get-by-date/2018-07-31/  Output:  {  "count": 2,  "next": null,  "previous": null,  "results": [  {  "currency\_from\_name": "USD",  "currency\_to\_name": "IDR",  "rate": 0.7609,  "date": "2018-07-31",  "avg\_rate\_of\_7\_latest\_days": 0.7609  },  {  "currency\_from\_name": "USD",  "currency\_to\_name": "GBP",  "rate": 3.234,  "date": "2018-07-31",  "avg\_rate\_of\_7\_latest\_days": 3.234  }  ]  } |
| 17 |  | [GET]  /api/v1//view-trend-by-id/id/ | Request:  http://127.0.0.1:8000/api/v1/currency-exchange-rates/view-trend-by-id/1/  Output:  {  "count": 2,  "next": null,  "previous": null,  "results": [  {  "id": 1,  "currency\_from": "USD",  "currency\_to": "IDR",  "rate": 0.7609,  "date": "2018-07-31",  "avg": 2.63045,  "variance": 6.990434405  },  {  "id": 4,  "currency\_from": "USD",  "currency\_to": "IDR",  "rate": 4.5,  "date": "2018-07-01",  "avg": 2.63045,  "variance": 6.990434405  }  ]  } |

Solution:

01. *User wants to input daily exchange rate data*

fitur ini dapat diimplementasikan dengan menggunakan api No. 12 yaitu dengan endpoint :

[POST] /api/v1/currency-exchange-rates/

Adapun penjelasan dari API ini adalah:

- API ini berhugungan dengan API No. 6 yaitu [GET] /api/v1/currency-pairs/. Nilai currency\_pair\_id dapat diperoleh dari api tersebut

**Request:**

[POST] http://127.0.0.1:8000/api/v1/currency-exchange-rates/

**Parameter:**

currency\_pair\_id : 2

exchange\_date : 2018-07-31T17:19:30.210349

rate : 3.234

**Contoh Output:**

{

"id": 2,

"currency\_pair\_id": {

"id": 2,

"from\_id": {

"id": 4,

"name": "USD",

"description": "US Dollar",

"deleted\_at": null

},

"to\_id": {

"id": 5,

"name": "GBP",

"description": "Pound Sterling",

"deleted\_at": null

},

"deleted\_at": null

},

"exchange\_date": "2018-07-31T17:19:30.210349",

"rate": 3.234,

"deleted\_at": null

}

02. *User has a list of changes rates to be tracked*

fitur ini dapat diimplementasikan dengan menggunakan api No.16 yaitu dengan endpoint:

[GET] /api/v1/currency-exchange-rates/get-by-date/2018-07-31/

Request:

http://127.0.0.1:8000/api/v1/currency-exchange-rates/get-by-date/2018-07-31/

Contoh Output:

{

"count": 2,

"next": null,

"previous": null,

"results": [

{

"currency\_from\_name": "USD",

"currency\_to\_name": "IDR",

"rate": 0.7609,

"date": "2018-07-31",

"avg\_rate\_of\_7\_latest\_days": 0.7609

},

{

"currency\_from\_name": "USD",

"currency\_to\_name": "GBP",

"rate": 3.234,

"date": "2018-07-31",

"avg\_rate\_of\_7\_latest\_days": 3.234

}

]

}

03. *User wants to see the exchange rate trend from the most recent 7 data points*

fitur ini dapat diimplementasikan dengan menggunakan api No. 17 yaitu dengan endpoint:

GET] /api/v1//view-trend-by-id/id/

Adapun penjelasan dari API ini adalah:

- API ini berhugungan dengan API No. 11 yaitu [GET] /api/v1/currency-exchange\_rates/. Nilai id dapat diperoleh dari id (primary key) api tersebut

Contoh:

Request:

http://127.0.0.1:8000/api/v1/currency-exchange-rates/view-trend-by-id/1/

Output:

{

"count": 2,

"next": null,

"previous": null,

"results": [

{

"id": 1,

"currency\_from": "USD",

"currency\_to": "IDR",

"rate": 0.7609,

"date": "2018-07-31",

"avg": 2.63045,

"variance": 6.990434405

},

{

"id": 4,

"currency\_from": "USD",

"currency\_to": "IDR",

"rate": 4.5,

"date": "2018-07-01",

"avg": 2.63045,

"variance": 6.990434405

}

]

}

04. *User wants to add an exchange rate to the list*

fitur ini dapat diimplementasikan dengan menggunakan api No. 7 yaitu dengan endpoint:

POST] /api/v1/currency-pairs

Adapun penjelasan dari API ini adalah:

- API ini berhugungan dengan API No. 1 yaitu [GET] /api/v1/currencies/. Nilai from\_id dan to\_id dapat diperoleh dari id (primary key) api tersebut

Contoh:

Request

[post] http://127.0.0.1:8000/api/v1/currency-pairs/

contoh Parameter:

from\_id : 4

to\_id : 5

-Output

tidak valid

{

"from\_id": [

"Invalid pk \"10\" - object does not exist."

],

"to\_id": [

"Invalid pk \"23\" - object does not exist."

]

}

valid

{

"id": 2,

"from\_id": {

"id": 4,

"name": "USD",

"description": "US Dollar",

"deleted\_at": null

},

"to\_id": {

"id": 5,

"name": "GBP",

"description": "Pound Sterling",

"deleted\_at": null

},

"deleted\_at": null

}

05. *User wants to remove an exchange rate from the list*

fitur ini dapat diimplementasikan dengan menggunakan api No. 8 yaitu dengan endpoint:

[DELETE] /api/v1/currency-pairs/pk/

Implementasi dari fungsi delete pada API ini adalah nilai deleted\_at dari fied yang akan dihapus akan diset (diberi nilai datetime)

Adapun yang perlu diperhatikan adalah:

- API ini berkaitan dengan API No. 6 [GET] /api/v1/currency-pairs/

yaitu untuk memperoleh parameter pk yang akan digunakan

sebagai contoh:

apabila ingin menghapus data from : USD to: GBP maka dengan menggunakan API no 6 tersebut akan memberoleh id (pk) parameter tersebut akan digunakan sebagai parameter.

Contoh:

-Request

http://127.0.0.1:8000/api/v1/currency-pairs/2/

-Output

{

"id": 2,

"from\_id": {

"id": 4,

"name": "USD",

"description": "US Dollar",

"deleted\_at": null

},

"to\_id": {

"id": 5,

"name": "GBP",

"description": "Pound Sterling",

"deleted\_at": null

},

"deleted\_at": "2018-07-31T17:09:30.219122"

}