# KRYPTO BACKEND TASK

## DETAILED DOCUMENTATION

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## MODELS:

### Users Model:

Id String (50) Primary key

Name String (50) unique

Password String (150)

Admin Boolean

Date_added Timestamp

### Alert Model:

Alert_id String (50) Primary key

User_id String (50)

Desc String (50)

Alert_name String (50)

Alert_on String (50)

Threshold Integer

Mail_to String (100)

Status String (10) = {"initiated", "Triggered", "deleted"}

Date_added Timestamp

### Crypto market API:

```
{"id":"bitcoin","symbol":"btc","name":"Bitcoin","image":"https://assets.coingecko.c
om/coins/images/1/large/bitcoin.png?1547033579","current_price":23809,"market_cap":
454811511852,"market_cap_rank":1,"fully_diluted_valuation":499859753547,"total_volu
me":41313050302,"high_24h":24147,"low_24h":23466,"price_change_24h":-
220.96612328966148,"price_change_percentage_24h":-0.91953,"market_cap_change_24h":-
4534427709.8880005,"market_cap_change_percentage_24h":-
0.98715,"circulating_supply":19107443.0,"total_supply":21000000.0,"max_supply":2100
0000.0,"ath":69045,"ath_change_percentage":-65.53917,"ath_date":"2021-11-
10T14:24:11.849Z","atl":67.81,"atl_change_percentage":34988.85054,"atl_date":"2013-
07-06T00:00:00.000Z","roi":null,"last_updated":"2022-07-30T07:03:53.758Z"}
```

- "Alert_name" on Alert table matches to "id" of Crypto market API.
- "Alert_on" on Alert table matches to any attribute of Crypto market API.

# Crypto market API is fetched every 10 seconds, checked and alerts are sent.

# API ENDPOINTS:

## Login:

"/login" = [BASIC AUTH]

Body:

{

username : "",

password : ""

}

If logged in, A token is sent back

```
{
    "token": "eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJpZCI6ImU5OTJmYjc1LWFjZDktNGM5
NC1hMDEzLWMyZDY1MDc1M2M3ZiIsImV4cCI6MTY1OTE2NjAwMH0.8TELbxVIpvX98zhY_czHsWu6GWWQoJh
vnU3VZC4wnd0"
}
```

Token has to be used as header to remaining APIs.

**Header:**

JWT token is created on login.

{x-access-token : <user-token>}

# Users:

1. **Add user:**
   Post method to add new user.
   "/user/create" = [POST]

   Json Example:

```
{
    "name" : "admin",
    "password": "admin",
    "admin" : "True"
}
```

# Need admin privileges:

1. **Get user information by id:**
   [GET] = "/user/<user_id>"

   Response:

   - Invalid user-id:
     ```
     {
         "message": "User by the id does not exist"
     }
     ```
   - Valid user-id:

```
{
```

```json
    "users": {
        "admin": true,
        "id": "e992fb75-acd9-4c94-a013-c2d650753c7f",
        "name": "admin",
        "password": "sha256$jbwAWYM0ueQQ5796$f75f0977243e2e4e15272dda6119e732efdb89
d8705c168ff35e5a4fa2d4a782"
    }
}
```

2. **List all users:**
   Get method to list all users.
   [GET] = "/user"

   Response:

```json
{
    "users": [
        {
            "admin": true,
            "id": "e992fb75-acd9-4c94-a013-c2d650753c7f",
            "name": "admin",
            "password": "sha256$jbwAWYM0ueQQ5796$f75f0977243e2e4e15272dda6119e732ef
db89d8705c168ff35e5a4fa2d4a782"
        }
    ]
}
```

# Alert:

# All APIs on Alert need user token in header.

## Need Admin privileges:

1. **List all Alerts**
   [GET] = "/alerts"

   **Paginated.**

   "/alerts?page=1"

   Page = Int value, Default – 1

   Rows_per_page = 5

## Does not need Admin Privileges:

1. **Create Alert:**
   [POST] = "/alerts/create"
   To create alerts

```json
{
    "desc" : "New alert to check",
    "alert_name" : "okb",
    "alert_on" : "current_price",
    "mail_to" : "jarunmadhesh@gmail.com",
    "threshold" : 30
}
```

2. **List all alerts created by the user**
   [GET] = "/alerts/mine"

   **Query:**
   "/alerts/mine?status=initiated"
   Status = {initiated, triggered, deleted, all}
   Default status = all

```json
{
    "alerts": [
        {
            "alert_id": "d4a33ae1-3d2d-440c-a999-621add6a2ab2",
            "alert_name": "okb",
            "alert_on": "current_price",
            "date_added": "Sat, 30 Jul 2022 02:17:00 GMT",
```

```
        "description": "New alert to check",
        "mail_to": "jonesakajr@gmail.com",
        "status": "triggered",
        "threshold": 20,
        "user_id": "e992fb75-acd9-4c94-a013-c2d650753c7f"
    },
    {
        "alert_id": "d26a5666-1a80-4841-8329-d264c849d55d",
        "alert_name": "okb",
        "alert_on": "current_price",
        "date_added": "Sat, 30 Jul 2022 12:23:42 GMT",
        "description": "New alert to check",
        "mail_to": "jarunmadhesh@gmail.com",
        "status": "triggered",
        "threshold": 30,
        "user_id": "e992fb75-acd9-4c94-a013-c2d650753c7f"
    }
  ]
}
```

### 3. Delete an alert:
[DELETE] = "alerts/delete/<alert_id>"

Response:
If Alert id found:

```
{"message" : "Alert deleted successfully", "alert_id": alert.alert_id}
```

If not:

```
{"message":"Alert not found"}
```