**User Notification API Documentation**

**Overview**

The User Notification API is designed to manage user notification preferences, deliver notifications, and monitor statistics. This API provides robust functionality with CRUD operations, validation, error handling, and rate limiting for improved reliability.

**Base URL**

* **Local Development:** http://localhost:3000
* **Production:** https://zigment-assessment-gkso83ut8-balas-projects-4107b07a.vercel.app/

**Endpoints**

**1. User Preferences**

**1.1 Create User Preferences**

* **Endpoint:** POST /api/preferences
* **Description:** Creates a new user preference.

**Request Body:**

{

"userId": "rohitSharma123",

"email": "rohit.sharma@example.com",

"preferences": {

"marketing": true,

"newsletter": false,

"updates": true,

"frequency": "daily",

"channels": {

"email": true,

"sms": true,

"push": false

}

},

"timezone": "Asia/Kolkata"

}

**Response:**

* **Status:** 201 Created
* **Body:**

{

"preferences": {

"channels": {

"email": true,

"sms": true,

"push": false

},

"marketing": true,

"newsletter": false,

"updates": true,

"frequency": "daily"

},

"\_id": "6741cc48eef320d80fbb7e7e",

"userId": "rohitSharma123",

"email": "rohit.sharma@example.com",

"timezone": "Asia/Kolkata",

"lastUpdated": "2024-11-23T12:36:24.459Z",

"createdAt": "2024-11-23T12:36:24.459Z",

"\_\_v": 0

}

**1.2 Get User Preferences**

* **Endpoint:** GET /api/preferences/:userId
* **Description:** Fetches preferences for a specific user.

**Example Request:**

GET /api/preferences/rohitSharma123

**Response:**

* **Status:** 200 OK
* **Body:**

{

"preferences": {

"channels": {

"email": true,

"sms": true,

"push": false

},

"marketing": true,

"newsletter": false,

"updates": true,

"frequency": "daily"

},

"\_id": "6741cc48eef320d80fbb7e7e",

"userId": "rohitSharma123",

"email": "rohit.sharma@example.com",

"timezone": "Asia/Kolkata",

"lastUpdated": "2024-11-23T12:36:24.459Z",

"createdAt": "2024-11-23T12:36:24.459Z",

"\_\_v": 0

}

**1.3 Update User Preferences**

* **Endpoint:** PATCH /api/preferences/:userId
* **Description:** Updates preferences for a specific user.

**Example Request:**

PATCH /api/preferences/rohitSharma123

**Request Body:**

{

"preferences": {

"marketing": true,

"newsletter": false,

"updates": true,

"frequency": "daily",

"channels": {

"email": true,

"sms": true,

"push": false

}

}}

**Response:**

* **Status:** 200 OK
* **Body:**

{

"preferences": {

"channels": {

"email": true,

"sms": true,

"push": false

},

"marketing": true,

"newsletter": false,

"updates": true,

"frequency": "daily"

},

"\_id": "6741cc48eef320d80fbb7e7e",

"userId": "rohitSharma123",

"email": "rohit.sharma@example.com",

"timezone": "Asia/Kolkata",

"lastUpdated": "2024-11-23T12:36:24.459Z",

"createdAt": "2024-11-23T12:36:24.459Z",

"\_\_v": 0

}

**1.4 Delete User Preferences**

* **Endpoint:** DELETE /api/preferences/:userId
* **Description:** Deletes preferences for a specific user.

**Example Request:**

DELETE /api/preferences/rohitSharma123

**Response:**

* **Status:** 200 OK
* **Body:**

{

"message": "User Preference have been successfully deleted."

}

**2. Notification Management**

**2.1 Send Notification**

* **Endpoint:** POST /api/notifications/send
* **Description:** Sends a notification to a user.

**Request Body:**

{

"userId": "rohitSharma123",

"type": "updates",

"channel": "email",

"content": {

"subject": "Special Offer",

"body": "Check out our latest deals!"

}

}

**Response:**

* **Status:** 200 OK
* **Body:**

{

"success": true,

"status": "sent",

"log":{

"userId": "rohitSharma123",

"type": "updates",

"channel": "email",

"content": {

"subject": "Special Offer",

"body": "Check out our latest deals!"

}

}

}

**2.2 Get Notification Logs**

* **Endpoint:** GET /api/notifications/:userId/logs
* **Description:** Fetches notification logs for a specific user.

**Example Request:**

GET /api/notifications/rohitSharma123/logs

**Response:**

* **Status:** 200 OK
* **Body:**

[

{

"userId": "rohitSharma123",

"type": "updates",

"channel": "email",

"content": {

"subject": "Special Offer",

"body": "Check out our latest deals!"

}

}

]

**2.3 Get Notification Statistics**

* **Endpoint:** GET /api/notifications/stats
* **Description:** Retrieves global notification statistics.

**Example Request:**

GET /api/notifications/stats

**Response:**

* **Status:** 200 OK
* **Body:**

{

"totalNotifications": 6,

"sent": 2,

"failed": 4,

"pending": 0

}