**Technical Documentation for RewardsController Endpoints**

**Overview**

The RewardsController class provides endpoints for retrieving reward points for customers. It offers two endpoints: one for retrieving the total reward points for all customers and another for retrieving the total reward points for a specific customer by their ID.

**Endpoints**

**1. Get Total Rewards for All Customers**

* **URL:** /rewards/total
* **HTTP Method:** GET
* **Description:** Retrieves the total reward points for all customers.
* **Response:**
  + **Status Code:** 200 OK
  + **Body:** A list of RewardResponse objects, each containing the reward details for a customer.
  + **Response Sample:**

json

[

{

"custId": "1",

"name": "Alex",

"total\_points": 250,

"rewardDetails": [

{

"month": "January",

"points": 150,

"amountSpent": 200,

"transactionAndPoints": [

{

"tranDate": "01/01/2023",

"amount": 200,

"points": 150

}

]

}

],

"totalAmountSpent": 200

},

{

"custId": "2",

"name": "Leo",

"total\_points": 300,

"rewardDetails": [

{

"month": "February",

"points": 300,

"amountSpent": 300,

"transactionAndPoints": [

{

"tranDate": "02/01/2023",

"amount": 300,

"points": 300

}

]

}

],

"totalAmountSpent": 300

}

]

**2. Get Total Rewards for a Specific Customer**

* **URL:** /rewards/total/{customerId}
* **HTTP Method:** GET
* **Description:** Retrieves the total reward points for a specific customer by their ID.
* **Path Parameters:**
  + customerId (String): The ID of the customer whose reward points are to be retrieved.
* **Response:**
  + **Status Code:** 200 OK
  + **Body:** A RewardResponse object containing the reward details for the specified customer.
  + **Response Sample:**

json

{

"custId": "1",

"name": "Alex",

"total\_points": 250,

"rewardDetails": [

{

"month": "January",

"points": 150,

"amountSpent": 200,

"transactionAndPoints": [

{

"tranDate": "01/01/2023",

"amount": 200,

"points": 150

}

]

}

],

"totalAmountSpent": 200

}

* + **Error Response (404 Not Found):**
    - **Body:**

json

{

"message": "Customer Id {customerId} not in DB",

"details": "Customer ID does not exist"

}

**Models**

**RewardResponse**

* **Fields:**
  + String custId: The customer ID.
  + String name: The customer name.
  + int total\_points: The total reward points accumulated by the customer.
  + List<RewardDetail> rewardDetails: A list of reward details grouped by month.
  + int totalAmountSpent: The total amount spent by the customer.

**RewardDetail**

* **Fields:**
  + String month: The month of the transactions.
  + int points: The reward points accumulated in that month.
  + int amountSpent: The total amount spent in that month.
  + List<TransactionAndPoints> transactionAndPoints: A list of transactions and corresponding points for the month.

**TransactionAndPoints**

* **Fields:**
  + String tranDate: The date of the transaction.
  + int amount: The amount of the transaction.
  + int points: The reward points for the transaction.

**Summary**

The RewardsController class provides endpoints to retrieve reward points for customers. The /rewards/total endpoint returns reward points for all customers, while the /rewards/total/{customerId} endpoint returns reward points for a specific customer by their ID. The responses include detailed reward information and any errors are handled with appropriate status codes and messages.