**Requirements Document**

|  |  |
| --- | --- |
| **Status** | **Draft** |
| **Version** | **1** |
| **Prepared by** | **Vijendra Thakur** |
| **Date Created** | **9/21/2018** |
| **Date Last Revised** |  |

**Overview**

Create an API to get account transactions in pdf format Reference Table

**Reference Table**

Transaction, DespositTransaction, InvestmentTransaction, LocTransaction, LoanTransaction

**Request Field**

POST /account/transactions

Accept: application/json

Authorization: Bearer w0mcJylzCn-AfvuGdqkty2-KP48=

Content-Type: application/x-www-form-urlencoded

http:localhost:8008/api/v1/account/transactions

{

“accountId”: “1357902468”,

“startTime”: 2015-01-01Z,

“endTime”: 2015-02-01Z

}

**Response**

HTTP/1.1 200 OK

Content-Type: application/pdf; charset=utf-8

"DepositTransaction":

{

}

Response is generated in pdf format at below

**Axis Bank**

**Csutomer Name:** Vijendra Thakur **CustomerId:** 3212324322

**Address:** Dhanori Pune MH 122121 IND **Currency:** INR

**Account Type:** DepositTransaction

**Statement of Axis Account No: 9132433234847 for the period (From: 2018-01-03 To: 2018-06-15)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **TransactionId** | **TransactionTimestamp** | **Description** | **Status** | **Amount** | **TransactionType** | **Payee** |
| 34512342323 | 2018-02-18 | Transfer | POSTED | 500 | TRANSFER | 3216540987 |
| 23232222323 | 2018-03-04 | Transfer | POSTED | 1000 | TRANSFER | 3216549842 |
| 23423342323 | 2018-03-10 | Transfer | POSTED | 20000 | TRANSFER | 1321654587 |
| 34512334343 | 2018-04-15 | Transfer | POSTED | 3500 | TRANSFER | 2342320987 |

**HTTP Response Code**

**200 OK:** Standard response for successful HTTP requests.

**400 Bad Request:** Invalid start or end date

**401 Unauthorized:**  Source account not authorized for transfer

[**404 Not Found**](https://en.wikipedia.org/wiki/HTTP_404)**:** Account Not found.

**500 Internal Server Error:** The request was not completed. The server met an unexpected condition

**Security**

We will implement spring security to authenticate the end users

**Table Relationship**

**AccountDescriptor Entity**

AccountDescriptorId 🡪 PK

**Account Entity**

AccountMasterId 🡪 PK

AccDescriptorId (AccountDescriptor Entity) 🡪 FK

**Transaction Entity**

TransactionID 🡪 PK

AccountId 🡪 FK

**DepositTransaction Entity:**

DepositTransactionId 🡪 PK

TransactionId 🡪 FK

**LoanTransaction Entity**

LoanTransactinId 🡪 PK

TransactionId 🡪 FK

**InvestmentTransaction Entity**

InvestmentTransactionId 🡪 PK

TransactionId 🡪 FK

**LocTransaction Entity**

LocTransactionId 🡪 PK

TransactionId 🡪 FK

**Reference Tables**

1. **AccountDescriptor Entity**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **AccountId** | **Error** | **AccountType** | **DisplayName** | **Status** | **Description** |
|  | Error Entity |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**AccountDescriptor Entity fields type**

|  |  |  |  |
| --- | --- | --- | --- |
| **Filed** | **Type** | **Max Len** | **Suggested Values** |
| AccountId | String | 128 |  |
| AccountType | string |  | Suggested values are available |
| DisplayName | string |  |  |
| Status | string |  | CLOSED DELINQUENT NEGATIVECURRENTBALANCE OPEN PAID PENDINGCLOSE |
| Description | string |  |  |

1. **Account Entity**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ParentAccountId** | **Nickname** | **Currency** | **AccountNumber** | **InterestRate** | **InterestRateType** |
|  |  | Currency Entity |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Entity fields type**

|  |  |  |  |
| --- | --- | --- | --- |
| **Filed** | **Type** | **Max Len** | **Suggested Values** |
| ParentAccountId | String | 128 |  |
| Nickname | String |  | Suggested values are available |
| AccountNumber | String |  |  |
| InterestRate | decimal |  |  |
| InterestRateType | string |  | FIXED VARIABLE |

1. **Transaction Entity**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **AccountId** | **TransactionId** | **ReferenceTransactionId** | **TransactionTimestamp** | **Description** | **Memo** | **Status** | **Amount** |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

**Transaction Entity fields type**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Filed** | **Type** | **Max Len** | **Suggested Values** | **Pattern** |
| AccountId | String | 128 |  |  |
| TransactionId | String | 128 |  |  |
| ReferenceTransactionId | String | 128 |  |  |
| TransactionTimestamp | dateTime |  |  | \d{4}\-\d\d\-\d\dT\d\d:\d\d:\d\d\.\d\d\dZ |
| Description | String |  |  |  |
| Memo | string | 255 |  |  |
| status | string |  | AUTHORIZATION MEMO PENDING POSTED |  |
|
|
| Amount | decimal |  |  |  |

1. **DepositTransaction Entity**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TransactionType** | **Payee** | **CheckNumber** | **Code** | **Message** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**DepositTransaction Entity field type**

|  |  |  |  |
| --- | --- | --- | --- |
| **Filed** | **Type** | **Max Len** | **Suggested Values** |
| **TransactionType** | String |  | ADJUSTMENT ATMDEPOSIT ATMWITHDRAWAL BILLPAYMENT CHECK DEPOSIT DIRECTDEPOSIT DIVIDEND FEE INTEREST POSCREDIT POSDEBIT TRANSFER WITHDRAWAL |
| **Payee** | String | 255 |  |
| **CheckNumber** | int |  |  |
| **Code** | string |  |  |
| **Message** | string |  |  |

1. **InvestmentTransaction Entity**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **TransactionType** | **Shares** | **FaceValue** | **Price** | **SecurityId** | **SecurityIdType** | **SecurityType** |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**InvestmentTransaction Entity field type**

|  |  |  |  |
| --- | --- | --- | --- |
| **Filed** | **Type** | **Max Len** | **Suggested Values** |
| TransactionType | string |  | Suggested values are available |
| Shares | decimal |  |  |
| FaceValue | decimal |  |  |
| Price | decimal |  |  |
| SecurityId | string |  |  |
| SecurityIdType | string |  | CUSIP, ISIN, SEDOL SICC, VALOR WKN |
| SecurityType | string |  | DEBT MUTUALFUND OPTION OTHER STOCK SWEEP |

1. **LoanTransaction Entity**

|  |  |
| --- | --- |
| **TransactionType** | **PaymentDetails** |
|  | PaymentDetails Entity |
|  |  |
|  |  |

**LoanTransaction Entity field type**

|  |  |  |
| --- | --- | --- |
| **Filed** | **Suggested Values** | **Type** |
| TransactionType | ADJUSTMENT FEE INTEREST PAYMENT | String |

1. **LocTransaction Entity**

|  |  |  |
| --- | --- | --- |
| **TransactionType** | **CheckNumber** | **PaymentDetails** |
|  |  | PaymentDetails Entity |
|  |  |  |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **Filed** | **Suggested Values** | **Type** |
| TransactionType | ADJUSTMENT CHECK FEE INTEREST PAYMENT WITHDRAWAL | string |
| CheckNumber |  | int |

**LocTransaction Entity field type**

1. **Bank Entity:**

|  |  |
| --- | --- |
| **BankId** | **Name** |
| Primary Key |  |
|  |  |
|  |  |

**Bank Entity fields and their types**

|  |  |  |
| --- | --- | --- |
| **Filed** | **Type** | **Max Len** |
| BankId | Integer | 11 |
| Name | String | 120 |

1. **Branch Entity**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **BranchId** | **IFSC** | **Address** | **City** | **State** | **Country** | **Zip** | **Telephone** | **Email** | **BankID** | **BranchName** |
| Primary Key |  |  |  |  |  |  |  |  | Foreign Key |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

**Branch Entity fields and their types**

|  |  |  |
| --- | --- | --- |
| **Filed** | **Type** | **Max Len** |
| BranchId | Integer | 11 |
| IFSC | String | 30 |
| Address | String | 200 |
| City | String | 30 |
| State | String | 40 |
| Country | String | 60 |
| Zip | String | 20 |
| Telephone | String | 14 |
| Email | String | 30 |
| BankID | Integer | 11 |
| BranchName | String | 40 |

1. **Customer Entity**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CustomerId** | **Name** | **DateOfBirth** | **TaxId** | **GovernmentId** | **Email** | **Addresses** | **Telephones** | **BranchID** |
| Primary Key | CustomerName |  |  |  |  | DeliveryAddress | TelephoneNumber | Foreign Key |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

**Customer Entity fields and their types**

|  |  |  |  |
| --- | --- | --- | --- |
| **Filed** | **Type** | **Max Len** | **Pattern** |
| CustomerID | String | 128 |  |
| DateOfBirth | dateTime |  | \d{4}\-\d\d\-\d\dT\d\d:\d\d:\d\d\.\d\d\dZ |
| TaxId | String |  |  |
| GovernmentId | string |  |  |
| Email | Array of string |  |  |

1. **CustomerName Entity**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Prefix** | **First** | **Middle** | **Last** | **Suffix** | **Company** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**CustomerName Entity fields and their types**

|  |  |
| --- | --- |
| **Filed** | **Type** |
| Prefix | String |
| First | String |
| Middle | String |
| Last | String |
| Suffix | String |
| Company | String |

1. **DeliveryAddress Entity**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Type** | **Line1** | **Line2** | **Line3** | **City** | **State** | **Zip** | **Country** |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

**DeliveryAddress Entity fields and their types**

|  |  |  |  |
| --- | --- | --- | --- |
| **Filed** | **Type** | **Max Len** | **Suggested Values** |
| Type | String |  | BUSINESS HOME MAILING |
| Line1 | String | 64 |  |
| Line2 | String | 64 |  |
| Line3 | String | 64 |  |
| City | String | 64 |  |
| State | String | 2 |  |
| Zip | String | 9 |  |
| Country | string |  | there is no of suggested values |

1. **TelephoneNumber Entity**

|  |  |  |
| --- | --- | --- |
| **Type** | **Country** | **Number** |
| HOME, BUSINESS, CELL, FAX |  |  |
|  |  |  |
|  |  |  |

**TelephoneNumber Entity fields and their types**

|  |  |  |  |
| --- | --- | --- | --- |
| **Filed** | **Type** | **Max Len** | **Suggested Values** |
| Type | string |  | BUSINESS, CELL, FAX, HOME |
| Country | string | 3 |  |
| Number | string | 10 |  |