

Bank API Documentation

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Legend:

Function Name
Parameter
Parameter Requirement
JSON key
JSON value
Inner JSON

Info:

- All returned JSONs will have an "Error" key. If its value is `false`, the JSON is a success response. If its value is `true`, the JSON is an error response
- ALWAYS check that the "Error" value is `false` before attempting to extract other expected values from a returned JSON
- If a `parameter requirement` is not met, the returned JSON will be an error response
- `JSON values` with asterisks are variable, but will always be of the type specified between the asterisks
 - i.e.
 - `"*string"` may be `"Transaction Failed: Insufficient Funds"`
 - `*boolean*` may be `false`
 - `"*$number with at least one digit before the decimal and exactly two digits after the decimal*"` may be `"$175.70"`
- The database schema sets a maximum account balance of \$999,999,999,999.99. Therefore, initial deposits, deposits, withdraws, and transfer amounts may not exceed this value
- Due to the interweaving use of multiple formatted standards like SQL, JDBC, and JSON: apostrophe's, quotes, backslashes, and semicolons are illegal characters across the service. This means they cannot be included in values for names, passwords, addresses, account names, etc.
- JSONs are case-sensitive
 - Boolean values must be written in lower case (`true` or `false` NOT `True` or `False`)
 - JSON key strings will be written exactly as described (`"Address"` is not the same as `"address"`)
- `"Time of Transaction"` values are in UTC (Coordinated Universal Time)

Register User

Description:

- Attempts to register a new user

Input JSON:

- **key:value** pairs:
 - o "Function": "Register User"
 - o "First Name": "*string*"
 - o "Last Name": "*string*"
 - o "Password": "*string*"
 - o "Address": "*string*"
- Example:
{ "Function": "Register User", "First Name": "John", "Last Name": "Doe", "Password": "SecurePassword", "Address": "739 Warriors Way, San Francisco, CA 94158" }

Parameters:

- String **First Name** - The new user's first name
 - must be between 1 and 30 characters, cannot contain ' " ; \
- String **Last Name** - The new user's last name
 - must be between 1 and 30 characters cannot contain ' " ; \
- String **Password** - The new user's password
 - must be between 1 and 30 characters, cannot contain ' " ; \
- String **Address** - The new user's address
 - must be between 1 and 100 characters, cannot contain ' " ; \

Returned JSON:

- Success Response (user created)
 - **key:value** pairs:
 - o "Error": false
 - o "User ID": *integer*
 - o "First Name": *string*
 - o "Last Name": *string*
 - Example:
{ "Error": false, "User ID": 25371, "First Name": "John", "Last Name": "Doe" }
- Error Response (user not created)
 - **key:value** pairs:
 - o "Error": true
 - o "Error Message": *string*
 - Example:
{ "Error": true, "Error Message": "Unable to create user: First name must be between 1 and 30 characters and cannot use apostrophes, quotes, backslashes, or semicolons" }

Login

Description:

- Attempts to send a login request
- A successful login request means that the request was processed, to check whether the login was successful, see the “Login Successful” value
- An error response should NEVER be treated as a successful login

Input JSON:

- key:value pairs:
 - o "Function": "Login"
 - o "User ID": *integer*
 - o "Password": *string*
- Example:
{ "Function": "Login", "User ID": 92853, "Password": "password123" }

Parameters:

- int User ID - The customer's user ID
- String Password - The customer's password

Returned JSON:

- Success Response (login request processed)
 - key:value pairs:
 - o "Error": false
 - o "User ID": *integer*
 - o "Login Successful": *boolean*
 - "Login Successful" will be true if the user ID and password match, otherwise it will be false
 - Example:
{ "Error": false, "User ID": 92853, "Login Successful": false }
- Error Response (login request not processed)
 - key:value pairs:
 - o "Error": true
 - o "Error Message": *string*
 - Example:
{ "Error": true, "Error Message": "Unable to determine login for User #92853" }

Change Name

Description:

- Attempts to change a user's name

Input JSON:

- **key:value** pairs:
 - o "Function": "Change Name"
 - o "User ID": *integer*
 - o "Password": *string*
 - o "New First Name": *string*
 - o "New Last Name": *string*
- Example:
{ "Function": "Change Name", "User ID": 66493, "Password": "password123", "New First Name": "John", "New Last Name": "Smith" }

Parameters:

- int **User ID** - The customer's user ID
 - must be valid
- String **Password** - The customer's password
 - must match user ID
- String **New First Name** - The customer's new first name
 - must be between 1 and 30 characters, cannot contain ' " ; \
- String **New Last Name** - The customer's new last name
 - must be between 1 and 30 characters, cannot contain ' " ; \

Returned JSON:

- Success Response (name changed)
 - **key:value** pairs:
 - o "Error": false
 - o "User ID": *integer*
 - o "New First Name": *string*
 - o "New Last Name": *string*
 - Example:
{ "Error": false, "User ID": 66493, "New First Name": "John", "New Last Name": "Smith" }
- Error Response (name not changed)
 - **key:value** pairs:
 - o "Error": true
 - o "Error Message": *string*
 - Example:
{ "Error": true, "Error Message": "Unable to change name for User #66493: First name must be between 1 and 30 characters and cannot use apostrophes, quotes, backslashes, or semicolons" }

Change Address

Description:

- Attempts to change a user's address

Input JSON:

- **key:value** pairs:
 - o "Function": "Change Address"
 - o "User ID": **integer**
 - o "Password": **string**
 - o "New Address": **string**
- Example:
{ "Function": "Change Address", "User ID": 58354, "Password": "WarriorsFan987", "New Address": "404 Main Street, San Francisco, CA 94121" }

Parameters:

- int **User ID** - The customer's user ID
 - must be valid
- String **Password** - The customer's password
 - must match user ID
- String **New Address** - The customer's new address
 - must be between 1 and 100 characters, cannot contain ' " ; \

Returned JSON:

- Success Response (address changed)
 - **key:value** pairs:
 - o "Error": false
 - o "User ID": **integer**
 - o "New Address": **string**
 - Example:
{ "Error": false, "User ID": 58354, "New Address": "404 Main Street, San Francisco, CA 94121" }
- Error Response (address not changed)
 - **key:value** pairs:
 - o "Error": true
 - o "Error Message": **string**
 - Example:
{ "Error": true, "Error Message": "Unable to change address for User #58354: User ID and password do not match" }

Change Password

Description:

- Attempts to change a user's password

Input JSON:

- **key:value** pairs:
 - o "Function": "Change Password"
 - o "User ID": **integer**
 - o "Old Password": **string**
 - o "New Password": **string**
- Example:
{ "Function": "Change Password", "User ID": 43112, "Old Password": "oldPASSWORD99", "New Password": "NewSecurePassword44" }

Parameters:

- int **User ID** - The customer's user ID
 - must be valid
- String **Old Password** - The customer's old password
 - must match user ID
- String **New Password** - The customer's new password
 - must be between 1 and 30 characters, cannot contain ' " ; \

Returned JSON:

- Success Response (password changed)
 - **key:value** pairs:
 - o "Error": false
 - o "User ID": **integer**
 - o "Password Changed": true
 - "Password Changed" will always be true in the success response. It is a boolean, not a string containing the new password, because a user's password will never be sent out by any API call
 - Example:
{ "Error": false, "User ID": 43112, "Password Changed": true }
- Error Response (password not changed)
 - **key:value** pairs:
 - o "Error": true
 - o "Error Message": **string**
 - Example:
{ "Error": true, "Error Message": "Unable to change password for User #43112: New password must be different than the current password" }

Open Account

Description:

- Attempts to create a new bank account for a user

Input JSON:

- **key:value** pairs:
 - o "Function": "Open Account"
 - o "User ID": **integer**
 - o "Password": **string**
 - o "Account Name": **string**
 - o "Account Type": **string**
 - o "Initial Deposit": **number with at least one digit before the decimal and exactly two digits after the decimal**
- Example:
{ "Function": "Open Account", "User ID": 773659, "Password": "bankpassword", "Account Name": "Chris Checking Account", "Account Type": "C", "Initial Deposit": 14055.90 }

Parameters:

- int **User ID** - The customer's user ID
 - must be valid
- String **Password** - The customer's password
 - must match user ID
- String **Account Name** - The new account's name
 - must be between 1 and 50 characters, cannot contain ' " ; \
- String **Account Type** - The account type
 - must be either "C" for Checking or "S" for Savings
- double **Initial Deposit** - The initial deposit for the new account
 - must be formatted as a number with two digits after the decimal (i.e. 100.00)
 - must be greater than or equal to zero and less than one trillion

Returned JSON:

- Success Response (account created)
 - **key:value** pairs:
 - o "Error": false
 - o "User ID": **integer**
 - o "Account": { **Account JSON** }
 - For info on **Account JSONs**, see page 21
 - Example:
{ "Error": false, "User ID": 773659, "Account": { "Account ID": 2295722, "Account Name": "Chris Checking Account", "Account Type": "Checking", "Account Status": "Active", "Balance": "\$14055.90" } } }
- Error Response (account not created)
 - **key:value** pairs:
 - o "Error": true
 - o "Error Message": **string**
 - Example:
{ "Error": true, "Error Message": "Unable to create account (Chris Checking Account) for User #773659: Initial deposit cannot be negative" }

Change Account Name

Description:

- Attempts to change an account's name

Input JSON:

- **key:value** pairs:
 - o "Function": "Change Account Name"
 - o "User ID": *integer*
 - o "Password": *string*
 - o "Account ID": *integer*
 - o "New Account Name": *string*
- Example:
{ "Function": "Change Account Name", "User ID": 75927, "Password": "RedGreenBlue", "Account ID": 673054, "New Account Name": "College Savings for Julie" }

Parameters:

- int **User ID** - The customer's user ID
 - must be valid
- String **Password** - The customer's password
 - must match user ID
- int **Account ID** - The account ID
 - must be active and owned by the specified user
- String **New Account Name** - The account's new name
 - must be between 1 and 50 characters, cannot contain ' " ; \

Returned JSON:

- Success Response (address changed)
 - **key:value** pairs:
 - o "Error": false
 - o "User ID": *integer*
 - o "Account ID": *integer*
 - o "New Account Name": *string*
 - Example:
{ "Error": false, "User ID": 75927, "Account ID": 673054, "New Account Name": "College Savings for Julie" }
- Error Response (address not changed)
 - **key:value** pairs:
 - o "Error": true
 - o "Error Message": *string*
 - Example:
{ "Error": true, "Error Message": "Unable to change name for Account #673054: User ID and password do not match" }

Close Account

Description:

- Attempts to close a user's account, withdraws remaining account balance

Input JSON:

- **key:value** pairs:
 - o "Function": "Close Account"
 - o "User ID": *integer*
 - o "Password": *string*
 - o "Account ID": *integer*
- Example:
{ "Function": "Close Account", "User ID": 46033, "Password": "asdfg09876", "Account ID": 286736 }

Parameters:

- int **User ID** - The customer's user ID
 - must be valid
- String **Password** - The customer's password
 - must match user ID
- int **Account ID** - The account ID
 - must be active and owned by the specified user

Returned JSON:

- Success Response (account closed)
 - **key:value** pairs:
 - o "Error": false
 - o "User ID": *integer*
 - o "Account ID": *integer*
 - o "Closed": true
 - "Closed" will always be **true** in the success response
 - Example:
{ "Error": false, "User ID": 46033, "Account ID": 286736, "Closed": true }
- Error Response (account not closed)
 - **key:value** pairs:
 - o "Error": true
 - o "Error Message": *string*
 - Example:
{ "Error": true, "Error Message": "Unable to close Account #286736 (User #46033): User has no active account with this account number" }

Withdraw

Description:

- Attempts to send a withdraw request
- A successful withdraw request means that the request was processed, to check whether the transaction went through or not, see the "Status" value

Input JSON:

- **key:value** pairs:
 - o "Function": "Withdraw"
 - o "User ID": *integer*
 - o "Password": *string*
 - o "Account ID": *integer*
 - o "Amount": *number with at least one digit before the decimal and exactly two digits after the decimal*
- Example:
{ "Function": "Withdraw", "User ID": 13743, "Password": "PaSsWoRd", "Account ID": 605112, "Amount": 100.00 }

Parameters:

- int **User ID** - The customer's user ID
 - must be valid
- String **Password** - The customer's password
 - must match user ID
- int **Account ID** - The account to be withdrawn from
 - must be active and owned by the specified user
- double **Amount** - The amount to be withdrawn from the account
 - must be formatted as a number with two digits after the decimal (i.e. 100.00)
 - must be greater than zero and less than one trillion

Returned JSON:

- Success Response (withdraw request processed)
 - **key:value** pairs:
 - o "Error": false
 - o "Transaction ID": *integer*
 - o "Transaction Type": "Withdraw"
 - o "Amount": "\$*number with at least one digit before the decimal and exactly two digits after the decimal*"
 - o "Account ID": *integer*
 - o "User ID": *integer*
 - o "Status": *string*
 - o "Time of Transaction": *string formatted as YYYY-MM-DD HH:MM:SS in UTC*
 - Example:
{ "Error": false, "Transaction ID": 162508014, "Transaction Type": "Withdraw", "Amount": "\$100.00", "Account ID": 605112, "User ID": 13743, "Status": "Transaction Failed: Insufficient Funds", "Time of Transaction": "2020-04-08 08:55:11" }
- Error Response (withdraw request not processed)
 - **key:value** pairs:
 - o "Error": true
 - o "Error Message": *string*
 - Example:
{ "Error": true, "Error Message": "Unable to withdraw \$1000000000000.00 from Account #605112: Withdraw amount cannot exceed \$999,999,999.99" }

Deposit

Description:

- Attempts to send a deposit request
- A successful deposit request means that the request was processed, to check whether the transaction went through or not, see the "Status" value

Input JSON:

- key:value pairs:
 - o "Function": "Deposit"
 - o "User ID": *integer*
 - o "Password": *string*
 - o "Account ID": *integer*
 - o "Amount": *number with at least one digit before the decimal and exactly two digits after the decimal*
- Example:
{ "Function": "Deposit", "User ID": 33603, "Password": "passwordFORbank", "Account ID": 104609, "Amount": 0.99 }

Parameters:

- int **User ID** - The customer's user ID
 - must be valid
- String **Password** - The customer's password
 - must match user ID
- int **Account ID** - The account to be deposited into
 - must be active and owned by the specified user
- double **Amount** - The amount to be deposited into the account
 - must be formatted as a number with two digits after the decimal (i.e. 100.00)
 - must be more than zero and less than one trillion

Returned JSON:

- Success Response (deposit request processed)
 - key:value pairs:
 - o "Error": false
 - o "Transaction ID": *integer*
 - o "Transaction Type": "Deposit"
 - o "Amount": "\$*number with at least one digit before the decimal and exactly two digits after the decimal*"
 - o "Account ID": *integer*
 - o "User ID": *integer*
 - o "Status": *string*
 - o "Time of Transaction": *string formatted as YYYY-MM-DD HH:MM:SS in UTC*
 - Example:
{ "Error": false, "Transaction ID": 911657521, "Transaction Type": "Deposit", "Amount": "\$0.99", "Account ID": 104609, "User ID": 33603, "Status": "Transaction Complete", "Time of Transaction": "2020-02-13 17:20:55" }
- Error Response (deposit request not processed)
 - key:value pairs:
 - o "Error": true
 - o "Error Message": *string*
 - Example:
{ "Error": true, "Error Message": "Unable to deposit \$0.99 into Account #104609: User ID and password do not match" }

Transfer

Description:

- Attempts to send a transfer request
- A successful transfer request means that the request was processed, to check whether the transaction went through or not, see the "Status" value

Input JSON:

- **key:value** pairs:
 - o "Function": "Transfer"
 - o "User ID": *integer*
 - o "Password": *string*
 - o "Source Account ID": *integer*
 - o "Destination Account ID": *integer*
 - o "Amount": *number with at least one digit before the decimal and exactly two digits after the decimal*
- Example:
{ "Function": "Transfer", "User ID": 33652, "Password": "abcdefg1234", "Source Account ID": 4104586, "Destination Account ID": 152431, "Amount": 15999.99 }

Parameters:

- int **User ID** - The customer's user ID
 - must be valid
- String **Password** - The customer's password
 - must match user ID
- int **Source Account ID** - The account to be withdrawn from
 - must be active and owned by the specified user
- int **Destination Account ID** - The account to be deposited into
 - must be active
 - must be different than the source account
- double **Amount** - The amount to be transferred from the source account to the destination account
 - must be formatted as a number with two digits after the decimal (i.e. 100.00)
 - must be more than zero and less than one trillion

Returned JSON (Cont. on next page)

Transfer (Cont.)

Returned JSON:

- Success Response (transfer request processed)
 - **key:value** pairs:
 - o "Error":false
 - o "Transaction ID":*integer*
 - o "Transaction Type":"Transfer"
 - o "Amount":*\$number with at least one digit before the decimal and exactly two digits after the decimal*
 - o "Source Account ID":*integer*
 - o "Destination Account ID":*integer*
 - o "User ID":*integer*
 - o "Status":*string*
 - o "Time of Transaction":*string formatted as YYYY-MM-DD HH:MM:SS in UTC*
 - Example:

```
{ "Error":false, "Transaction ID":329830315, "Transaction Type":"Transfer", "Amount": "$15999.99", "Source Account ID":4104586, "Destination Account ID":152431, "User ID":33652, "Status":"Transaction Complete", "Time of Transaction":"2019-11-29 14:23:09" }
```
- Error Response (transfer request not processed)
 - **key:value** pairs:
 - o "Error":true
 - o "Error Message":*string*
 - Example:

```
{ "Error":true, "Error Message":"Unable to transfer $25.50 from Account #400732 to Account #165012: User #58487 has no active accounts with the Account Number 400732" }
```

User Info

Description:

- Attempts to get a user's personal information

Input JSON:

- **key:value** pairs:
 - o "Function": "User Info"
 - o "User ID": **integer**
 - o "Password": **string**
- Example:
{ "Function": "User Info", "User ID": 80341, "Password": "MyPassword115" }

Parameters:

- int **User ID** - The customer's user ID
 - must be valid
- String **Password** - The customer's password
 - must match user ID

Returned JSON:

- Success Response (user info returned)
 - **key:value** pairs:
 - o "Error": false
 - o "User ID": **integer**
 - o "First Name": **string**
 - o "Last Name": **string**
 - o "Address": **string**
 - Example:
{ "Error": false, "User ID": 80341, "First Name": "Stephen", "Last Name": "Johnson", "Address": "747 Avian Drive, Los Angeles, CA 90210" }
- Error Response (user info not returned)
 - **key:value** pairs:
 - o "Error": true
 - o "Error Message": **string**
 - Example:
{ "Error": true, "Error Message": "Cannot get user info for User #80341: User ID and password do not match" }

User Account Summary

Description:

- Attempts to get a list of a user's active accounts

Input JSON:

- **key:value** pairs:
 - o "Function": "User Account Summary"
 - o "User ID": **integer**
 - o "Password": **string**
 - o "Include Inactive": **boolean**
- Example:

```
{ "Function": "User Account Summary", "User ID": 17374, "Password": "password1", "Include Inactive": true }
```

Parameters:

- int **User ID** - The customer's user ID
 - must be valid
- String **Password** - The customer's password
 - must match user ID
- boolean **Include Inactive** - Whether to include inactive accounts in the list
 - if true, inactive accounts will be included, otherwise they will not

Returned JSON:

- Success Response (user's active accounts returned)
 - **key:value** pairs:
 - o "Error": false
 - o "User ID": **integer**
 - o "Accounts": *[*JSON array of Account JSONs*]*
 - For info on **Account JSONs**, see page 21
 - If the user has no active accounts, "Accounts" will be an empty JSON array (e.g. [])
 - Example:

```
{ "Error": false, "User ID": 17374, "Accounts": [ { "Account ID": 946832, "Account Name": "College Funds", "Account Type": "Savings", "Account Status": "Active", "Balance": "$1500.00" }, { "Account ID": 946421, "Account Name": "David - Checking", "Account Type": "Checking", "Account Status": "Inactive", "Balance": "$0.00" } ] }
```
- Error Response (user's active accounts not returned)
 - **key:value** pairs:
 - o "Error": true
 - o "Error Message": **string**
 - Example:

```
{ "Error": true, "Error Message": "Unable to get summary of User #17374's accounts: User ID and password do not match" }
```

User Transaction History

Description:

- Attempts to get a user's transaction history in order of most recent transaction first

Input JSON:

- **key:value** pairs:
 - o "Function": "User Transaction History"
 - o "User ID": **integer**
 - o "Password": **string**
 - o "Limit": **integer**
- Example:
{ "Function": "User Transaction History", "User ID": 86364, "Password": "BankPassword", "Limit": 0 }

Parameters:

- int **User ID** - The customer's user ID
 - must be valid
- String **Password** - The customer's password
 - must match user ID
- int **Limit** - The maximum number of transactions to be shown
 - if limit is 0 or less, no limit will be applied

Returned JSON (Cont. on next page)

User Transaction History (Cont.)

Returned JSON:

- Success Response (user transaction history returned)
 - **key:value** pairs:
 - "Error":false
 - "User ID":*integer*
 - "Transactions":[*JSON array of Transaction JSONs*]
 - For info on **Transaction JSONs**, see page 22
 - "Transactions" will never contain a **Transaction JSON** with a "Transaction Type" of "Incoming Transfer" because users can only make transfers from an account they own to another account
 - If the user has made no transactions, "Transactions" will be an empty JSON array (e.g. [])
 - Example:

```
{ "Error":false, "User ID":86364, "Transactions":[{"Transaction ID":105783564, "Transaction Type":"Withdraw", "Amount":"$1000.00", "Account ID":438608, "User ID":86364, "Status":"Transaction Failed: Insufficient Funds", "Time of Transaction":"2020-04-09 09:46:30"}, {"Transaction ID":105783391, "Transaction Type":"Outgoing Transfer", "Amount":"$780.00", "Account ID":438608, "Destination Account ID":639644, "User ID":86364, "Status":"Transaction Complete", "Time of Transaction":"2020-04-06 13:02:31"}, {"Transaction ID":105783022, "Transaction Type":"Deposit", "Amount":"$25.01", "Account ID":438608, "User ID":86364, "Status":"Transaction Complete", "Time of Transaction":"2020-04-01 20:28:59"}]}
```
- Error Response (user transaction history not returned)
 - **key:value** pairs:
 - "Error":true
 - "Error Message":*string*
 - Example:

```
{ "Error":true, "Error Message":"Cannot get transaction history for User #86364: User ID and password do not match" }
```

Account Transaction History

Description:

- Attempts to get an account's transaction history in order of most recent transaction first

Input JSON:

- **key:value** pairs:
 - o "Function": "Account Transaction History"
 - o "User ID": *integer*
 - o "Password": *string*
 - o "Account ID": *integer*
 - o "Limit": *integer*
- Example:
{ "Function": "Account Transaction History", "User ID": 64366, "Password": "awsdjikl", "Account ID": 129739, "Limit": 10 }

Parameters:

- int **User ID** - The customer's user ID
 - must be valid
- String **Password** - The customer's password
 - must match user ID
- int **Account ID** - The account ID
 - must be owned by the specified user, can be inactive
- int **Limit** - The maximum number of transactions to be shown
 - if limit is 0 or less, no limit will be applied

Returned JSON:

- Success Response (account transaction history returned)
 - **key:value** pairs:
 - o "Error": false
 - o "Account ID": *integer*
 - o "Transactions": [*JSON array of Transaction JSONs*]
 - For info on **Transaction JSONs**, see page 22
 - If the account has no transactions associated with it, "Transactions" will be an empty JSON array (e.g. [])
 - Example:
{ "Error": false, "Account ID": 129739, "Transactions": [{ "Transaction ID": 973748636, "Transaction Type": "Incoming Transfer", "Amount": "\$100.00", "Account ID": 129739, "Source Account ID": 408535, "User ID": 36894, "Status": "Transaction Complete", "Time of Transaction": "2020-04-02 08:51:31" }, { "Transaction ID": 973748212, "Transaction Type": "Deposit", "Amount": "\$55.66", "Account ID": 129739, "User ID": 64366, "Status": "Transaction Complete", "Time of Transaction": "2020-03-15 15:47:09" }, { "Transaction ID": 973747527, "Transaction Type": "Outgoing Transfer", "Amount": "\$19.48", "Account ID": 129739, "Destination Account ID": 846822, "User ID": 64366, "Status": "Transaction Complete", "Time of Transaction": "2020-03-13 12:00:17" }] }
- Error Response (account transaction history not returned)
 - **key:value** pairs:
 - o "Error": true
 - o "Error Message": *string*
 - Example:
{ "Error": true, "Error Message": "Cannot get transaction history for Account #129739: User ID and password do not match" }

Account JSON

- key:value pairs:
 - o "Account ID":*integer*
 - o "Account Name":*string*
 - o "Account Type":*string*
 - o "Account Status":*string*
 - o "Balance":*\$*number with at least one digit before the decimal and exactly two digits after the decimal*
- "Account Type" will always be either "Checking" or "Savings"
- "Account Status" will always be either "Active" or "Inactive"
- Example:

```
{ "Account ID":946832,"Account Name":"College Funds","Account Type":"Savings","Account Status":"Active","Balance":"$1500.00" }
```

Transaction JSON

- Deposit or Withdraw
 - o key:value pairs:
 - o "Transaction ID":*integer*
 - o "Transaction Type":*String*
 - o "Amount":*\$number with at least one digit before the decimal and exactly two digits after the decimal*
 - o "Account ID":*integer*
 - o "User ID":*integer*
 - o "Status":*string*
 - o "Time of Transaction":*string formatted as YYYY-MM-DD HH:MM:SS in UTC*
 - o "Transaction Type" will be either "Deposit" or "Withdraw", accordingly
 - o Example:

```
{ "Transaction ID":105783564, "Transaction Type":"Withdraw", "Amount": "$1000.00", "Account ID":438608, "User ID":86364, "Status":"Transaction Failed: Insufficient Funds", "Time of Transaction":"2020-04-09 09:46:30" }
```
- Outgoing Transfer
 - o key:value pairs:
 - o "Transaction ID":*integer*
 - o "Transaction Type":"Outgoing Transfer"
 - o "Amount":*\$number with at least one digit before the decimal and exactly two digits after the decimal*
 - o "Account ID":*integer*
 - o "Destination Account ID":*integer*
 - o "User ID":*integer*
 - o "Status":*string*
 - o "Time of Transaction":*string formatted as YYYY-MM-DD HH:MM:SS in UTC*
 - o Example:

```
{ "Transaction ID":105783391, "Transaction Type":"Outgoing Transfer", "Amount": "$780.00", "Account ID":438608, "Destination Account ID":639644, "User ID":86364, "Status":"Transaction Complete", "Time of Transaction":"2020-04-06 13:02:31" }
```
- Incoming Transfer
 - o key:value pairs:
 - o "Transaction ID":*integer*
 - o "Transaction Type":"Incoming Transfer"
 - o "Amount":*\$number with at least one digit before the decimal and exactly two digits after the decimal*
 - o "Account ID":*integer*
 - o "Source Account ID":*integer*
 - o "User ID":*integer*
 - o "Status":*string*
 - o "Time of Transaction":*string formatted as YYYY-MM-DD HH:MM:SS in UTC*
 - o Example:

```
{ "Transaction ID":105784109, "Transaction Type":"Incoming Transfer", "Amount": "$38.95", "Account ID":438608, "Source Account ID":163739, "User ID":74199, "Status":"Transaction Complete", "Time of Transaction":"2020-04-15 20:29:28" }
```