**StackOverCash: Banking System – API Documentation**

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**Authentication Endpoints**

|  |  |  |
| --- | --- | --- |
| **API Endpoint** | **/register** | |
| **Method** | POST | |
| **Request Params** | **Type** | **Description** |
| name | string | Full name of the account holder |
| email | string | Email address |
| phone\_number | string | Phone number for OTP verification |
| password | string | Account password |
| password\_confirmation | string | Confirm password |
| address | string | User's address (optional) |
| Allows new users to register as account holders in the StackOverCash system. | | |
| **Status Code** | **Description** | |
| 201 | User registered successfully | |
| **Success** | | |
| **Redirect Params** | **Type** | **Description** |
| user\_id | number | User ID |
| account\_number | number | Generated account number |
| message | string | Success message |
| **Sample Redirection URL** | | |
| N/A | | |
| **Fail** | | |
| **Success Status Code** | **Description** | |
| 400 | Invalid input | |
| 409 | Email already exists | |
| **Sample Redirection URL** | | |
| N/A | | |

|  |  |  |
| --- | --- | --- |
| **API Endpoint** | **/login** | |
| **Method** | POST | |
| **Request Params** | **Type** | **Description** |
| email | string (email) | User's email address |
| password | string | User's password |
| Authenticates users (account holders and tellers) into the StackOverCash system. | | |
| **Success Status Code** | **Description** | |
| 200 | User logged in successfully | |
| **Success** | | |
| **Redirect Params** | **Type** | **Description** |
| token | string | Authentication token (JWT) |
| user\_id | number | User ID |
| role | string | User role (account\_holder, teller) |
| account\_number | number | Account number (for account holders only) |
| name | string | User's name |
| **Sample Redirection URL** | | |
| N/A | | |
| **Fail** | | |
| **Status Code** | **Description** | |
| 401 | Authentication failed | |
| 429 | Too many failed login attempts | |
| **Sample Redirection URL** | | |
| N/A | | |

|  |  |  |
| --- | --- | --- |
| **API Endpoint** | **/logout** | |
| **Method** | POST | |
| **Request Params** | **Type** | **Description** |
| None |  |  |
| Invalidates the current user session/token. | | |
| **Success Status Code** | **Description** | |
| 200 | Successfully logged out | |
| **Success** | | |
| **Redirect Params** | **Type** | **Description** |
| message | string | Success message |
| **Sample Redirection URL** | | |
| N/A | | |
| **Fail** | | |
| **Status Code** | **Description** | |
| 401 | Unauthorized | |
| **Sample Redirection URL** | | |
| N/A | | |

|  |  |  |
| --- | --- | --- |
| **API Endpoint** | **/user/change-password** | |
| **Method** | POST | |
| **Request Params** | **Type** | **Description** |
| current\_password | string | Current password |
| new\_password | string | New password |
| new\_password\_confirmation | string | Confirm new password |
| Changes the password for the authenticated user. | | |
| **Status Code** | **Description** | |
| 200 | Password changed successfully | |
| **Success** | | |
| **Redirect Params** | **Type** | **Description** |
| message | string | Success message |
| **Sample Redirection URL** | | |
| N/A | | |
| **Fail** | | |
| **Status Code** | **Description** | |
| 400 | Invalid input | |
| 401 | Unauthorized or incorrect old password | |
| **Sample Redirection URL** | | |
| N/A | | |

**Account Endpoints**

|  |  |  |
| --- | --- | --- |
| **API Endpoint** | **/account-balance** | |
| **Method** | GET | |
| **Request Params** | **Type** | **Description** |
| account\_no | number | Account number to query |
| Retrieves the balance for a specified account. | | |
| **Success Status Code** | **Description** | |
| 200 | Balance retrieved successfully | |
| **Success** | | |
| **Redirect Params** | **Type** | **Description** |
| account\_number | number | Account number |
| balance | number | Current balance |
| currency | string | Currency code |
| last\_updated | string (date-time) | Last update timestamp |
| **Sample Redirection URL** | | |
| N/A | | |
| **Fail** | | |
| **Status Code** | **Description** | |
| 403 | Access denied | |
| 404 | Account not found | |
| **Sample Redirection URL** | | |
| N/A | | |

|  |  |  |
| --- | --- | --- |
| **API Endpoint** | **/user/profile** | |
| **Method** | GET | |
| **Request Params** | **Type** | **Description** |
| None |  |  |
| Retrieves the profile information for the authenticated user. | | |
| **Success Status Code** | **Description** | |
| 200 | Profile retrieved successfully | |
| **Success** | | |
| **Redirect Params** | **Type** | **Description** |
| user\_id | number | User ID |
| name | string | User's name |
| email | string | User's email |
| phone\_number | string | User's phone number |
| address | string | User's address |
| role | string | User role (account\_holder, teller) |
| account\_number | number | Account number (for account holders only) |
| created\_at | string | Account creation date |
| **Sample Redirection URL** | | |
| N/A | | |
| **Fail** | | |
| **Status Code** | **Description** | |
| 401 | Unauthorized | |
| **Sample Redirection URL** | | |
| N/A | | |

|  |  |  |
| --- | --- | --- |
| **API Endpoint** | **/user/profile** | |
| **Method** | PUT | |
| **Request Params** | **Type** | **Description** |
| name | string | User's name |
| phone\_number | string | User's phone number |
| address | string | User's address |
| Updates profile information for the authenticated user. | | |
| **Success Status Code** | **Description** | |
| 200 | Profile updated successfully | |
| **Success** | | |
| **Redirect Params** | **Type** | **Description** |
| user\_id | number | User ID |
| name | string | User's name |
| email | string | User's email |
| phone\_number | string | User's phone number |
| address | string | User's address |
| role | string | User role (account\_holder, teller) |
| account\_number | number | Account number (for account holders only) |
| created\_at | string | Account creation date |
| **Sample Redirection URL** | | |
| N/A | | |
| **Fail** | | |
| **Status Code** | **Description** | |
| 400 | Invalid input | |
| 401 | Unauthorized | |
| **Sample Redirection URL** | | |
| N/A | | |

**Teller Endpoints**

|  |  |  |
| --- | --- | --- |
| **API Endpoint** | **/deposit** | |
| **Method** | POST | |
| **Request Params** | **Type** | **Description** |
| account\_no | number | Account number to deposit to |
| amount | number | Amount to deposit (minimum: 0.01) |
| description | string | Optional description |
| Allows tellers to deposit funds into customer accounts. | | |
| **Success Status Code** | **Description** | |
| 200 | Deposit completed successfully | |
| **Success** | | |
| **Redirect Params** | **Type** | **Description** |
| transaction\_id | number | Transaction ID |
| account\_number | number | Account number |
| amount | number | Transaction amount |
| balance\_after | number | Balance after transaction |
| timestamp | string | Transaction timestamp |
| transaction\_type | string | Type of transaction |
| description | string | Transaction description |
| status | string | Transaction status |
| **Sample Redirection URL** | | |
| N/A | | |
| **Fail** | | |
| **Status Code** | **Description** | |
| 400 | Invalid request | |
| 403 | Unauthorized for teller operations | |
| 404 | Account not found | |
| **Sample Redirection URL** | | |
| N/A | | |

|  |  |  |
| --- | --- | --- |
| **API Endpoint** | **/withdraw** | |
| **Method** | POST | |
| **Request Params** | **Type** | **Description** |
| account\_no | number | Account number to withdraw from |
| amount | number | Amount to withdraw (minimum: 0.01) |
| description | string | Optional description |
| Allows tellers to withdraw funds from customer accounts. | | |
| **Success Status Code** | **Description** | |
| 200 | Withdrawal completed successfully | |
| **Success** | | |
| **Redirect Params** | **Type** | **Description** |
| transaction\_id | number | Transaction ID |
| account\_number | number | Account number |
| amount | number | Transaction amount |
| balance\_after | number | Balance after transaction |
| timestamp | string | Transaction timestamp |
| transaction\_type | string | Type of transaction |
| description | string | Transaction description |
| status | string | Transaction status |
| **Sample Redirection URL** | | |
| N/A | | |
| **Fail** | | |
| **Status Code** | **Description** | |
| 400 | Invalid request or insufficient funds | |
| 403 | Unauthorized for teller operations | |
| 404 | Account not found | |
| **Sample Redirection URL** | | |
| N/A | | |

**Transfer Endpoints**

|  |  |  |
| --- | --- | --- |
| **API Endpoint** | **/fund-transfer** | |
| **Method** | POST | |
| **Request Params** | **Type** | **Description** |
| transaction\_amount | number | The amount to be transferred (minimum: 0.01) |
| source\_account\_no | number | The source account number |
| recipient\_account\_no | number | The recipient account number |
| description | string | Optional transaction description |
| redirect\_url | string | A URL to redirect after successful transaction (optional) |
| Transfers funds between accounts within the same bank, with OTP verification. | | |
| **Success Status Code** | **Description** | |
| 202 | Transfer initiated, OTP verification required | |
| **Success** | | |
| **Redirect Params** | **Type** | **Description** |
| transaction\_reference | string | Reference ID for the pending transaction |
| otp\_sent | boolean | Indicates if OTP was sent successfully |
| otp\_medium | string | Method used to send OTP (sms, email) |
| expires\_at | string | OTP expiration time |
| redirect\_url | string | URL to redirect for OTP input (if provided in request) |
| **Sample Redirection URL** | | |
| N/A | | |
| **Fail** | | |
| **Status Code** | **Description** | |
| 400 | Invalid request | |
| 401 | Unauthorized | |
| 404 | Account not found | |
| **Sample Redirection URL** | | |
| N/A | | |

|  |  |  |
| --- | --- | --- |
| **API Endpoint** | **/fund-transfer-external** | |
| **Method** | POST | |
| **Request Params** | **Type** | **Description** |
| transaction\_amount | number | The amount to be transferred (minimum: 0.01) |
| source\_account\_no | number | The source (internal) account number |
| recipient\_bank\_code | string | The bank code for the recipient (external) account |
| recipient\_account\_no | number | The recipient account (external) number |
| recipient\_name | string | Name of the recipient (optional) |
| description | string | Optional transaction description |
| redirect\_url | string | A URL to redirect after successful transaction (optional) |
| Transfers funds from an internal account to an external bank, with OTP verification. | | |
| **Success Status Code** | **Description** | |
| 202 | Transfer initiated, OTP verification required | |
| **Success** | | |
| **Redirect Params** | **Type** | **Description** |
| transaction\_reference | string | Reference ID for the pending transaction |
| otp\_sent | boolean | Indicates if OTP was sent successfully |
| otp\_medium | string | Method used to send OTP (sms, email) |
| expires\_at | string | OTP expiration time |
| redirect\_url | string | URL to redirect for OTP input (if provided in request) |
| **Sample Redirection URL** | | |
| N/A | | |
| **Fail** | | |
| **Status Code** | **Description** | |
| 400 | Invalid request | |
| 401 | Unauthorized | |
| 404 | Account not found | |
| **Sample Redirection URL** | | |
| N/A | | |

|  |  |  |
| --- | --- | --- |
| **API Endpoint** | **/receive-external-transfer** | |
| **Method** | POST | |
| **Request Params** | **Type** | **Description** |
| transaction\_amount | number | The amount to be transferred (minimum: 0.01) |
| source\_account\_no | number | The source (external) account number |
| source\_bank\_code | string | The bank code for the source (external) account |
| source\_name | string | Name of the sender (optional) |
| recipient\_account\_no | number | The recipient (internal) account number |
| description | string | Optional transaction description |
| Receives funds from an external bank into an internal account. | | |
| **Success Status Code** | **Description** | |
| 200 | Transfer received successfully | |
| **Success** | | |
| **Redirect Params** | **Type** | **Description** |
| fund\_transfer\_success | boolean | Indicates if the transaction is successful |
| transaction\_id | number | Generated ID of the transaction |
| timestamp | string | Transaction timestamp |
| recipient\_account\_no | number | The recipient (internal) account number |
| balance\_after | number | Balance after transaction |
| **Sample Redirection URL** | | |
| N/A | | |
| **Fail** | | |
| **Status Code** | **Description** | |
| 400 | Invalid request | |
| 404 | Account not found | |
| **Sample Redirection URL** | | |
| N/A | | |

**OTP Endpoints**

|  |  |  |
| --- | --- | --- |
| **API Endpoint** | **/verify-otp** | |
| **Method** | POST | |
| **Request Params** | **Type** | **Description** |
| transaction\_reference | string | Reference ID for the pending transaction |
| otp\_code | string | The OTP code received by the user |
| Verifies the OTP sent to the user for fund transfer authorization. | | |
| **Success Status Code** | **Description** | |
| 200 | OTP verified, transfer completed | |
| **Success** | | |
| **Redirect Params** | **Type** | **Description** |
| transaction\_id | number | Transaction ID |
| account\_number | number | Account number |
| amount | number | Transaction amount |
| balance\_after | number | Balance after transaction |
| timestamp | string | Transaction timestamp |
| transaction\_type | string | Type of transaction |
| description | string | Transaction description |
| status | string | Transaction status |
| **Sample Redirection URL** | | |
| N/A | | |
| **Fail** | | |
| **Status Code** | **Description** | |
| 400 | Invalid OTP | |
| 410 | OTP expired | |
| **Sample Redirection URL** | | |
| N/A | | |

**Transaction Endpoints**

|  |  |  |
| --- | --- | --- |
| **API Endpoint** | **/transactions** | |
| **Method** | GET | |
| **Request Params** | **Type** | **Description** |
| account\_no | number | Account number |
| from\_date | string | Start date for filtering transactions (ISO format) (optional) |
| to\_date | string | End date for filtering transactions (ISO format) (optional) |
| transaction\_type | string | Filter by transaction type (deposit, withdraw, transfer\_in, transfer\_out) (optional) |
| page | integer | Page number for pagination (default: 1) (optional) |
| limit | integer | Number of records per page (default: 10) (optional) |
| Retrieves transaction history for a specified account. | | |
| **Status Code** | **Description** | |
| 200 | Transaction history retrieved successfully | |
| **Success** | | |
| **Redirect Params** | **Type** | **Description** |
| account\_number | number | Account number |
| transactions | array | List of transactions |
| pagination | object | Pagination details |
| **Sample Redirection URL** | | |
| N/A | | |
| **Transaction Object Details** | | |
| **Field** | **Description** | |
| transaction\_id | number - Transaction ID | |
| amount | number - Transaction amount | |
| timestamp | string (date-time) - Transaction timestamp | |
| transaction\_type | string - Type of transaction | |
| description | string - Transaction description | |
| balance\_after | number - Balance after transaction | |
| status | string - Transaction status | |
| counterparty | object - Information about the other party in the transaction (if applicable) | |
| **Fail** | | |
| **Status Code** | **Description** | |
| 400 | Invalid request parameters | |
| 403 | Access denied | |
| **Sample Redirection URL** | | |
| N/A | | |