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# Overview

To complement or enhance your product offering from the Deutsche Bank financial data and services use [Deutsche Bank API Program](https://developer.db.com/apiexplorer). This program helps to integrate third-party applications with an easy and secure way to access the bank data.

Below are API offerings and procedures provided by Deutsche Bank API Program for the lending loan offers.

## Service: dbapi-lending-loanOffers

Using this service, you can

* easily request loan offers on behalf of your customer
* get the status of the offer
* upload an offer document

**Base URL**

*https://simulator-api.postbank.de:443/gw/dbapi/lending/loanOffers/v1*

**API Operations**

With this service you can execute the following operations:

|  |  |  |
| --- | --- | --- |
| **Method** | **URI** | **Description** |
| GET | [*GET v1/offers/{offerId}/status*](#Bookmark1) | Gets the status of the offer with the given offer ID. |
| POST | [*POST v1/offers*](#Bookmark2) | Requests an offer for a loan. |
| POST | [*POST v1/ offers/{offerId}/documents*](#Bookmark3) | Uploads a document using the document information. |

### Authorisation

The APIs offered by the Deutsche Bank API Program usually require authorisation. To use the APIs you will first need to register your application. This will give you a unique Client ID and Client Secret Key to use in the authorisation flows and you can also register your redirect URI that is needed in the authorisation flow.

For more information on authorization, see [Getting Started Guide](https://developer.db.com/apidocumentation/oauthflows/oauthintroduction).

### API Operations

#### GET Offer Status

This API gets the status of the offer for the offerId specified in the request header.

**HTTP Request**

https://simulator-*api.postbank.de:443/gw/dbapi/lending/loanOffers/v1/offers/{offerId}/status*

##### Header Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameters** | **Type/Length** | **Mandatory (M)/Optional (O)** | **Description** |
| offerId | string | M | Unique identifier of an offer generated by a previous call to the offers POST endpoint. |
| Correlation-Id | string  Max length: 50 | O | Free form key controlled by the caller.  e.g. uuid |

**Header Example**

The header contains the offerId, Correlation-Id, accept (language), and the authorisation. The request below gets the status of the offer that has the offerId 1234556.

|  |
| --- |
| curl -X GET "https://simulator-api.postbank.de:443/gw/dbapi/lending/loanOffers/v1/offers/1234556/status" -H "Correlation-Id: 656565656565" -H "Accept: application/json" -H "Authorization: Bearer eyJraWQiOiJrbXNfc2lnbmVyXzEiLCJhbGciOiJFUzI1NiJ9.eyJzdWIiOiJkZXZlbG9wZXJwb3J0YWwtY2xpZW50LWNyZWRlbnRpYWxzIiwiYXVkIjoiYXBpbSIsImF6cCI6ImRldmVsb3BlcnBvcnRhbC1jbGllbnQtY3JlZGVudGlhbHMiLCJpc3MiOiJodHRwczpcL1wvc2ltdWxhdG9yLWFwaS5wb3N0YmFuay5kZVwvZ3dcL29pZGNcLyIsImV4cCI6MTcxNjQwNTU2OSwiaWF0IjoxNzE2NDAxOTY5LCJqdGkiOiJlYTBjYjdkYi0wNzRjLTQ1MzEtODEwNS04MTE5MjFiYWM3NzUifQ.45d7L0Y-MzPlyPO9a-785KNlYK\_aoo2nxRH5QoFAk9rP2eUNakNzAiOFe7MV4qbon1cIUZvO0SBptjevdlnuQg" |

##### Response Body

Below is an example of the response body.

|  |
| --- |
| {  "offerStatus": {  "processingStatus": {  "status": "WAITING",  "comment": "string"  },  "checkStatus": {  "status": "PROPOSAL",  "comment": "string"  }  },  "legitimationData": {  "e2eProcessId": "string"  },  "documentStatusList": [  {  "documentStatus": {  "documentIndex": 0,  "documentType": "string",  "documentSubType": "string",  "description": "string",  "status": "WAITING",  "additionalInformation": "Page 3 not readable."  }  }  ]  } |

##### Status/Error Code

The server responds with an appropriate status code to notify the client if the request was successfully handled or not.

|  |  |
| --- | --- |
| **Response** | **Example** |
| 200 | successful  The response contains the status of the offer with the given offer id. |
| Default, unsuccessful operation | {  "code": 0,  "message": "string",  "messageId": "string"  } |

|  |  |
| --- | --- |
| **Fields** | **Description** |
| offerStatus | * processingStatus: The current processing state of an offer.   + status: string   + comment: string (enum: WAITING, PROCESSING, DECLINED, APPROVED) * checkStatus: Outcome of pre-check.   + status: string   + comment: string |
| legitimationData | Data required for performing the end user's legitimation.   * e2eProcessId: string, An Id used for linking the specific onboarding process to a (set of) related legitimation process(es). |
| documentStatusList | List of documents status. Depending on context can be sub-list of the list of all documents belonging to an offer.   * documentStatus: Status of the document.   + documentIndex: integer, virtual index uniquely addressing a document in the list of documents belonging to an offer.   + documentType: string, not necessarily unique type of the document. E.g. tax statement, financial statement.   + documentSubType: In case documentType is not unique contains a subtype making the composite key type + subtype unique.   + description: string, short description which can be used in UIs to give the document a user-friendly name.   + status: string, enumeration of allowed states for a document.   + additionalInformation: string, additional information regarding the document status. |

#### POST Loan Offers

This API requests an offer for a loan. For this data about the prospect, project and needed loan should be provided. The result is a set of contract documents and loan parameters for the prospect to review. Contains among other data a unique offer id which can be used with the other endpoints for status retrieval or additional processing.

HTTP Request

*api.postbank.de:443/gw/dbapi/lending/loanOffers/v1/offers*

##### Header Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameters** | **Type/Length** | **Mandatory (M)/Optional (O)** | **Description** |
| idempotency-id | string | M | Unique id of the service call. Should be resent during retries to avoid multiple processing of the same request. |
| Correlation-Id | string  Max length: 50 | O | Free form key controlled by the caller.  e.g. uuid |

**Header Example**

The header contains the idempotency-id, Correlation-Id, accept (language), and the authorisation.

|  |
| --- |
| curl –X POST "https://simulator-api.postbank.de:443/gw/dbapi/lending/loanOffers/v1/offers"-H"idempotency-id:12345"-H"Correlation-Id:23478"-H"Accept:application/json"-H"Content-Type:application/json"-H"Authorization:BearereyJraWQiOiJrbXNfc2lnbmVyXzEiLCJhbGciOiJFUzI1NiJ9.eyJzdWIiOiJkZXZlbG9wZXJwb3J0YWwtY2xpZW50LWNyZWRlbnRpYWxzIiwiYXVkIjoiYXBpbSIsImF6cCI6ImRldmVsb3BlcnBvcnRhbC1jbGllbnQtY3JlZGVudGlhbHMiLCJpc3MiOiJodHRwczpcL1wvc2ltdWxhdG9yLWFwaS5wb3N0YmFuay5kZVwvZ3dcL29pZGNcLyIsImV4cCI6MTcxNjQ2MzIyMywiaWF0IjoxNzE2NDU5NjI0LCJqdGkiOiIwZDI1NmY1OS1iZDk3LTQ0M2YtOWEyZi03NmIwZTBlNzVhYzMifQ.3v71Y7Lby2kQMXwSaNSufTvfhwPyse8YS0bQdU\_rz4QaYm189WBxPAyruPYG5OgUntPhmBVW\_m4xgb9kGUTzCA"-d"{\"applicant\":{\"applicantCategory\":\"NATURAL\_PERSON\",\"legalForm\":\"EINZELKAUFMANN\",\"applicantName\":\"string\",\"numberOfBorrowers\":0,\"applicantAddress\":{\"addressType\":\"PRIVATE\_ADDRESS\",\"registeredResidence\":false,\"residenceAddressSince\":\"string\",\"street\":\"string\",\"houseNumber\":\"string\",\"city\":\"string\",\"zipCode\":\"string\",\"country\":\"string\"},\"communicationAddress\":{\"poBox\":\"string\",\"addressType\":\"PRIVATE\_ADDRESS\",\"street\":\"string\",\"houseNumber\":\"string\",\"city\":\"string\",\"zipCode\":\"string\",\"country\":\"string\"}},\"productAndProject\":{\"project\":{\"projectName\":\"string\",\"usageTypeOfFunds\":\"BUSINESS\",\"useOfFunds\":\"OPERATING\_FUNDS\",\"borrowerIban\":\"string\",\"additionalInfo\":\"string\",\"totalProjectVolume\":0,\"equity\":0,\"financingRequirement\":0,\"convertExistingLoan\":false,\"ibanOfConvertedLoan\":\"string\"},\"product\":{\"productCategory\":\"LOANS\",\"loanAmount\":0,\"durationInMonths\":0,\"installment\":0,\"repaymentStartDate\":\"string\"}},\"partners\":[{}],\"financialData\":[{\"customerWithBalanceSheet\":false,\"referenceYearOfKPIs\":0,\"businessKPIs\":{\"incomeAndLossStatement\":{\"revenue\":0,\"materialExpenses\":0,\"staffExpenses\":0,\"managerSalary\":0,\"depreciation\":0,\"extraordinaryCharges\":0,\"extraordinaryExpense\":0,\"interestExpense\":0,\"earningsBeforeTaxesEBT\":0,\"businessTaxes\":0,\"netIncome\":0,\"profit\":0,\"withdrawals\":0,\"contributions\":0,\"totalExpenses\":0},\"assets\":{},\"liabilities\":{}},\"privateKPIs\":{\"statementDate\":\"string\",\"income\":{},\"expenses\":{},\"assets\":{},\"liabilities\":{}}}]}"" |

##### Request Body

|  |
| --- |
| {  "applicant": {  "applicantCategory": "NATURAL\_PERSON",  "legalForm": "EINZELKAUFMANN",  "applicantName": "string",  "numberOfBorrowers": 0,  "applicantAddress": {  "addressType": "PRIVATE\_ADDRESS",  "registeredResidence": false,  "residenceAddressSince": "string",  "street": "string",  "houseNumber": "string",  "city": "string",  "zipCode": "string",  "country": "string"  },  "communicationAddress": {  "poBox": "string",  "addressType": "PRIVATE\_ADDRESS",  "street": "string",  "houseNumber": "string",  "city": "string",  "zipCode": "string",  "country": "string"  }  },  "productAndProject": {  "project": {  "projectName": "string",  "usageTypeOfFunds": "BUSINESS",  "useOfFunds": "OPERATING\_FUNDS",  "borrowerIban": "string",  "additionalInfo": "string",  "totalProjectVolume": 0,  "equity": 0,  "financingRequirement": 0,  "convertExistingLoan": false,  "ibanOfConvertedLoan": "string"  },  "product": {  "productCategory": "LOANS",  "loanAmount": 0,  "durationInMonths": 0,  "installment": 0,  "repaymentStartDate": "string"  }  },  "partners": [  {}  ],  "financialData": [  {  "customerWithBalanceSheet": false,  "referenceYearOfKPIs": 0,  "businessKPIs": {  "incomeAndLossStatement": {  "revenue": 0,  "materialExpenses": 0,  "staffExpenses": 0,  "managerSalary": 0,  "depreciation": 0,  "extraordinaryCharges": 0,  "extraordinaryExpense": 0,  "interestExpense": 0,  "earningsBeforeTaxesEBT": 0,  "businessTaxes": 0,  "netIncome": 0,  "profit": 0,  "withdrawals": 0,  "contributions": 0,  "totalExpenses": 0  },  "assets": {},  "liabilities": {}  },  "privateKPIs": {  "statementDate": "string",  "income": {},  "expenses": {},  "assets": {},  "liabilities": {}  }  }  ]  } |

|  |  |  |
| --- | --- | --- |
| **Fields** | | **Description** |
| applicant: The party interested in a loan. | | |
|  | applicantCategory | String, categorization of the applicant. |
| legalForm | String, legal form of the applicant. |
| applicantName | String, name of the applicant. |
| numberOfBorrowers | Integer, number of borrowers backing the applicant. |
| applicantAddress | String, a simple address   * addressType: string Type of the address. * RegisteredResidence: boolean, Indicates, if the postal address is the registered residence address of a partner. * ResidenceAddressSince: string($date) Shows since when this is the residence address. [ISO Date. I.e. YYYY-MM-DD] * Street: string Street part of the address * HouseNumber: string House number part of the address * City: string City part of the address * ZipCode: string Postal code part of the address * Country: string ISO 3166-1 alpha-3 code of the country. |
| productAndProject: Data describing the requested product and the project it is used for. | | |
|  | project | Information regarding the project needing financing.   * projectName: string Name of the project the product should be used for * usageTypeOfFunds: string Can be either BUSINESS or PRIVATE usage. * useOfFunds: string Contains the usage for the funds. * borrowerIban: string, International Bank Account Number * additionalInfo: string, additional information regarding the project * totalProjectVolume: Total volume of the project. * equity: number, self-financed amount of the project cost * financingRequirement: number, needed financing * convertExistingLoan: Funds used to convert an existing loan? * ibanOfConvertedLoan: string, International Bank Account Number |
|  | product | Information regarding the product in scope for a project.   * productCategory: string, Category of the product * loanAmount: number, Loan amount in euro. * DurationInMonths * Installment: installment * RepaymentStartDate: ($date) Start date of repayment. [ISO Date. I.e. YYYY-MM-DD] |
| partners |  | Data of an account holder. |
| financialData: For self-employed persons businessKPIs is a mandatory field and must at least contain incomeAndLossStatement->revenue. | | |
|  | customerWithBalanceSheet: boolean  referenceYearOfKPIs: integer |  |
|  | businessKPIs | * incomeAndLossStatement: The income and loss statement are mandatory for self-employed persons.   + revenue: number   + materialExpenses: number   + staffExpenses: number   + managerSalary: number   + depreciation: number   + extraordinaryCharges: number   + extraordinaryExpense: number   + interestExpense: number   + earningsBeforeTaxesEBT: number   + businessTaxes: number   + netIncome: number   + numberprofit: number   + withdrawals: number   + contributions: number   + totalExpenses: number * assets * liabilities |
|  | privateKPIs | * statementDate: string($date) * income * expenses * assets * liabilities |

##### Status/Error Code

The server responds with an appropriate status code to notify the client if the request was successfully handled or not.

|  |  |
| --- | --- |
| **Response** | **Example** |
| 200 | In case there is no offer proposal we just reply with failed and check and reason. |
| 201 | An offer proposal is created and is contained in the response. |
| Default, unsuccessful operation | {  "code": 0,  "message": "string",  "messageId": "string"  } |

#### POST Offer Document

This API helps to upload a document using the document information. Using this operation you can upload a single PDF document. The document is addressed by the documentIndex, the documentType and the documentSubType.

**HTTP Request**

*api.postbank.de:443/gw/dbapi/lending/loanOffers/v1/offers/{offerId}/documents*

##### Header Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameters** | **Type/Length** | **Mandatory (M)/Optional (O)** | **Description** |
| idempotency-id | string | M | Unique id of the service call. Should be resent during retries to avoid multiple processing of the same request. |
| offerId | string | M | Unique identifier of an offer generated by a previous call to the offers POST endpoint |
| Correlation-Id | string  Max length: 50 | O | Free form key controlled by the caller.  e.g. uuid |

**Header Example**

The header contains the offerId, idempotency-id, Correlation-Id, accept (language), and the authorisation. The request below uploads the document for the offerId 4566.

|  |
| --- |
| curl –X POST "https://simulator-api.postbank.de:443/gw/dbapi/lending/loanOffers/v1/offers/4566/documents"-H"idempotency-id:23344"-H"Correlation-Id:343453"-H"Accept:application/json"-H"Content-Type:application/json"-H"Authorization:BearereyJraWQiOiJrbXNfc2lnbmVyXzEiLCJhbGciOiJFUzI1NiJ9.eyJzdWIiOiJkZXZlbG9wZXJwb3J0YWwtY2xpZW50LWNyZWRlbnRpYWxzIiwiYXVkIjoiYXBpbSIsImF6cCI6ImRldmVsb3BlcnBvcnRhbC1jbGllbnQtY3JlZGVudGlhbHMiLCJpc3MiOiJodHRwczpcL1wvc2ltdWxhdG9yLWFwaS5wb3N0YmFuay5kZVwvZ3dcL29pZGNcLyIsImV4cCI6MTcxNjQ3NDAzNCwiaWF0IjoxNzE2NDcwNDM0LCJqdGkiOiIzNWM5MWViMS1mNzgxLTRmMWMtOTZlMy0zNDE5NGUxMzdhYjIifQ.TUNnJLrpowc-4ojL6SBeGcvfIMz2V68-0Szo9vjw1QcDwDsTukN7QgQ1k-EaFG\_2hrb7eeJk4uC4Y4BygVZ5aQ"-d"{\"document\":{\"documentInfo\":{\"documentIndex\":0,\"documentType\":\"string\",\"documentSubType\":\"string\",\"description\":\"string\"},\"document\":{\"filename\":\"string\",\"data\":\"string\",\"length\":0,\"mimeType\":\"application/pdf\"}}}" |

##### Request Body

|  |
| --- |
| {  "document": {  "documentInfo": {  "documentIndex": 0,  "documentType": "string",  "documentSubType": "string",  "description": "string"  },  "document": {  "filename": "string",  "data": "string",  "length": 0,  "mimeType": "application/pdf"  }  }  } |

##### Response Body

Below is an example of the response body.

|  |
| --- |
| {  "documentIndex":0,  "documentType":"string",  "documentSubType":"string",  "description":"string",  "status":"WAITING",  "additionalInformation":"Page 3 not readable."  } |

|  |  |
| --- | --- |
| **Fields** | **Description** |
| documentIndex | *integer($int32),* Virtual index uniquely addressing a document in the list of documents belonging to an offer. |
| documentType | *String*, not necessarily unique type of the document. E.g. tax statement, financial statement. |
| documentSubType | *String,* in case documentType is not unique contains a subtype making the composite key type + subtype unique. |
| description | String, short description which can be used in UIs to give the document a user-friendly name. |
| status | String, Enumeration of allowed states for a document.  (enum - WAITING, RECEIVED, ERROR, ACCEPTED) |
| additionalInformation | String, Additional information regarding the document status. |

##### Status/Error Code

The server responds with an appropriate status code to notify the client if the request was successfully handled or not.

|  |  |
| --- | --- |
| **Response** | **Example** |
| 201 | document is created successfully. |
| Default, unsuccessful operation | {  "code": 0,  "message": "string",  "messageId": "string"  } |