INSTANT SHOPPING LOAN API GUIDE

This document is prepared to give information about process steps and APIs which are used to create Instant Shopping Loan Product.

With this API integration, customers may purchase items by using loan instantly at trade sites.

1. Loan Definition

The loan information (Loan interest rate, min/max installment count, Amount Limit, First Payment limit in days) specific to your company is shared with campaigns API. Campaign API is invoked to check the loan definitions have been made for your company. Campaign API is required to be called with your client id.

```
GET /api/v1/campaigns/
Host: apigateway.uatisbank
X-IBM-client-id: {YOUR_CLIENT_ID}
X-IBM-client-secret: {YOUR_CLEINT_SECRET}
Content-Type: application/json
```

Response sample for this call is shown below.

```
{
"data": {
"base_rate": 2,
"minimum_rate": 1.45,
"maximum_rate": 1.45,
"minimum_limit": 750,
"maximum_limit": 15000,
"maximum_term": 48,
"minimum_term": 4,
"first_payment_limit_in_days": 45
}
}
```

If you don't get this response, loan definitions have not been made.

2. Creating a Payment Plan

At this phase, user's product will be displayed, instant loan appear as a payment option below the product. In order to display options by installment number, The Payment Plans API is invoked as follows.

```
GET /api/v1/payment-plans/?terms=[4,6,8]&loan_amount=10000
Host: apigateway.uatisbank
X-IBM-client-id: {YOUR_CLIENT_ID}
X-IBM-client-secret: {YOUR_CLEINT_SECRET}
```

Response sample for this call is shown below.

```
{
"data": [
{
"term": 4,
"monthly_payment": 2609.69,
"total_repayment": 10438.76,
"interest_rate": 1.45
},
{
"term": 6,
"monthly_payment": 1769.63,
"total_repayment": 10617.78,
"interest_rate": 1.45
},
{
"term": 8,
"monthly_payment": 1349.84,
"total_repayment": 10798.72,
"interest_rate": 1.45
}
]
}
```

3. Repayment Schedule

Repayment schedule will be displayed according to selected number of installments. In order to do this repayment schedule API must be invoked as follows.

```
GET /api/v1/payment-plans/sample?
term=4&loan_amount=10000&payment_start_date=2017-7-15
Host: apigateway.uatisbank
X-IBM-client-id: {YOUR_CLIENT_ID}
X-IBM-client-secret: {YOUR_CLEINT_SECRET}
```

Response sample for this call is shown below.

```
{
"data": {
"monthly_payment": 2609.69,
"term": 4,
"loan_amount": 10000,
"total_interest_amount": 268.96,
"total_repayment": 10322.76,
"total_tax_amount": 13.46,
"total_fund_amount": 40.34,
"interest_rate": 1.45,
"allocation_charge": 0,
"payment_plan": [
{
"payment_number": 1,
"payment_date": "2017-07-01",
"payment_amount": 2493.69,
```

"capital_amount": 2435.69,
"interest_amount": 48.33,
"tax_amount": 2.42,
"fund_amount": 7.25,
"capital_remaining": 7564.31
},
{
"payment_number": 2,
"payment_date": "2017-08-01",
"payment_amount": 2609.69,
"capital_amount": 2478.08,
"interest_amount": 109.68,
"tax_amount": 5.48,
"fund_amount": 16.45,
"capital_remaining": 5086.23
},
{
"payment_number": 3,
"payment_date": "2017-09-01",
"payment_amount": 2609.69,
"capital_amount": 2521.19,
"interest_amount": 73.75,
"tax_amount": 3.69,
"fund_amount": 11.06,
"capital_remaining": 2565.04
},
{
"payment_number": 4,
"payment_date": "2017-10-01",
"payment_amount": 2609.69,
"capital_amount": 2565.04,
"interest_amount": 37.2,
"tax_amount": 1.87,
"fund_amount": 5.58,
"capital_remaining": 0
}
],
"yearly_cost_rate": 23.0264
}
}

4. Customer Login

In the next steps, You need to login the customer and make an API call with Access_token. In order to do that, you need to open the link below in a separate popup.

https://www.uatisbank/Internet/index.aspx?
src=SRC&txCode=apiLogin&response_type=code&scope=api&client_id=
{YOUR_CLEINT_ID}&redirect_uri={YOUR_REDIRECT_URL}

SRC: Company specific code for login

This link opens Isbank login screen, customer login from here and then get back to your YOUR_REDIRECT_URL address. authorization_code will be sent to you with Code parameter in query parameters.

After getting this code parameter, you should get Access_token. How to get an acces _token is shown below.

```
POST /api/v1/oauth2/token
Host: apigateway.uatisbank
Content-Type: application/x-www-form-urlencoded
Authorization: Basic {YOUR_CLEINT_ID:YOUR_CLEINT_SECRET}
grant_type=authorization_code&redirect_uri={{YOUR_REDIRECT_URL}}&code={code}
```

Here is a sample response for this call.

```
{
"token_type": "bearer",
"access_token":
"AAEkMTUxNjIwMTMtY2IzYi00Mzk2LTgyYWYtYzAwOGRjOTc5M2I1y6xLiSNdKe0qSu7bu11GU4i8P
FB37QBSCX2ewjFCCtTxztEGgQfN2rW5cxitHl4Mo6LTKQ_FWvSA8yZySwbM9Q",
"expires_in": 3600,
"scope": "api"
}
```

Your next actions will be done with the access_token in this response.

5. Loan Application

First loans API should be invoked to get an application_id.

```
POST /api/v1/loans
Host: apigateway.uatisbank
x-ibm-client-id: {YOUR_CLEINT_ID}
x-ibm-client-secret: {YOUR_CLEINT_SECRET}
Authorization: Bearer {access_token}
```

Response sample for this call is shown below.

```
{
"data": {
"application_id": "367297"
}
}
```

CreditScores should be called afterwards and the id must be registered.

```
POST /api/v1/credit-scores/
Host: apigateway.uatisbank
x-ibm-client-id: {YOUR_CLEINT_ID}
x-ibm-client-secret: {YOUR_CLEINT_SECRET}
Authorization: Bearer {access_token}
```

Content-Type: application/json
{"application_id":{application_id}}

Response sample for this call is shown below. inquiry_id here must be registered.

```
{
"data": {
"inquiry_id": "67353170621115115217"
}
}
```

6. Decision for Loan Application

Several APIs must be invoked for the decision.

6.1.   Customer Accounts

Customer Account is invoked to list customer's accounts so customers can select one.

```
GET /api/v1/customer-accounts/
Host: apigateway.uatisbank
x-ibm-client-id: {YOUR_CLEINT_ID}
x-ibm-client-secret: {YOUR_CLEINT_SECRET}
Authorization: Bearer {access_token}
```

Response sample for this call is shown below.

```
{
"data": [
{
"branch_name": "BAŞKENT/ANKARA",
"branch_code": 4299,
"number": "****982",
"account_id": 42869084,
"overdraft_protection": false
},
{
"branch_name": "BAŞKENT/ANKARA",
"branch_code": 4299,
"number": "****181",
"account_id": 22869084,
"overdraft_protection": true
}
]
}
```

6.2.   Customers

Customer API is invoked to get customer's e-mail address and job information.

```
GET /api/v1/customers/
Host: apigateway.uatisbank
```

```
x-ibm-client-id: {YOUR_CLEINT_ID}
x-ibm-client-secret: {YOUR_CLEINT_SECRET}
Authorization: Bearer {access_token}
```

Response sample for this call is shown below.

```
{
"data": {
"profession": "MESLK_MUHENDIS",
"occupational_status": "CLSDR_OZELSEKTOR",
"job_title": "UNVAN_UZMAN",
"educational_level": "OGRDR_UNIVERSITE",
"email_address": "test@email.com.tr"
}
}
```

6.3.   Enums

Residence type Parameter information to be used in the bank system is shared through this API.

```
GET /api/v1/enums/type_of_residency
Host: apigateway.uatisbank
x-ibm-client-id: {YOUR_CLIENT_ID}
x-ibm-client-secret: {YOUR_CLIENT_SECRET}
```

Response sample for this call is shown below.

```
{
"data": {
"1": "Sahibi Olduğu Evde Oturuyor",
"2": "Kiracı",
"3": "Lojmanda Oturuyor",
"4": "Aile Bireylerinden Birisinin Evinde Oturuyor",
"99": "Diğer (Otel, Misafirhane vb.)"
}
}
```

6.4.   Credit Score Control

Credit Scores API is invoked to get result needed for decision.

```
GET /api/v1/credit-scores/{inquiry_id}
Host: apigateway.uatisbank
x-ibm-client-id: {YOUR_CLEINT_ID}
x-ibm-client-secret: {YOUR_CLEINT_SECRET}
Authorization: Bearer {access_token}
```

After seeing response below, Decisions API can be called.

```
{
"data": {
```

```
"result": true
}
}
```

6.5.   Result of Loan Application

Decisions API is invoked to decide the loan application acceptable or not.

```
POST /api/v1/decisions/
Host: apigateway.uatisbank
x-ibm-client-id: {YOUR_CLEINT_ID}
x-ibm-client-secret: {YOUR_CLEINT_SECRET}
Authorization: Bearer {access_token}
Content-Type: application/json
{
"account_id": "42869084",
"overdraft_protection": true,
"email_address": "email@example.com",
"requested_term": 4,
"requested_amount": 10000,
"monthly_average_income": 99919,
"current_job_start_date": "2012-07-01",
"number_of_dependents": 1,
"type_of_residence": "1",
"first_payment_date": "2017-7-1",
"application_id": "{application_id}",
"products" : [
{
"name" : " Kedi Maması 15 Kg + Sırt Çantası +
Oyuncak Renkli Küçük Fare 3'lü Hediye!",
"quantity" : 10
},
{
"name" : " Kuzu Etli Pirinçli Yetişkin Köpek Maması 15
Kg",
"quantity" : 8
}
]
}
```

 Response sample for this call is shown below.

```
{
"data": {
"result": true
}
}
```

You should not proceed the next step if you do not get "result": true response

7. Agreements

In that phase agreements will be created by using several APIs. First pre-contract information form then loan agreement will be created and displayed to customer.

Printable_document field is encoded PDF with base64 or HTML document.

7.1.   Pre-contract Information Form Request

If customer is applicable to get a loan, Loan Agreement Notices API is invoked to create pre-contract information form.

```
POST /api/v1/loan-agreement-notices
Host: apigateway.uatisbank
x-ibm-client-id: {YOUR_CLEINT_ID}
x-ibm-client-secret: {YOUR_CLEINT_SECRET}
Authorization: Bearer {access_token}
Content-Type: application/json
{
"application_id": 367297,
"document_format":"PDF"
}
```

If document format is not stated, PDF will be accepted as default.

```
{
"application_id": 367297
}
```

Contract will be sent as PDF at the request above.

Response sample for this call is shown below.

```
{
"data": {
"printable_document": "fksjhdfjksdhfgsdjhgffjhsdg",
"document_id": 77155516
}
}
```

7.2.   Loan Agreement Request

Loan agreement API is invoked to create consumer loan agreement.

```
POST /api/v1/loan-agreements
Host: apigateway.uatisbank
x-ibm-client-id: {YOUR_CLEINT_ID}
x-ibm-client-secret: {YOUR_CLEINT_SECRET}
Authorization: Bearer {access_token}
Content-Type: application/json
{
"application_id": 367297,
"document_format":"PDF"
}
```

Response sample for this call is shown below.

```
{
"data": {
"printable_document": "xcmxczvzbgfdascbzxvasghdfzxbcv",
"document_id": 77155516
}
}
```

7.3. Loan Agreements Approval

After both loan pre-contract information form and loan agreement is shown to a customer, customer approves agreements. In order to send customer approval to Bank, Loan Agreements Approval API is invoked.

```
POST /api/v1/loan-agreement-approvals/
Host: apigateway.uatisbank
x-ibm-client-id: {YOUR_CLEINT_ID}
x-ibm-client-secret: {YOUR_CLEINT_SECRET}
11/12
Authorization: Bearer {access_token}
Content-Type: application/json
{
"application_id": 367297
}
```

Response sample for this call is shown below.

```
{
"data": {
"messege_id": 77155516
}
}
```

8. Disbursement

As a last step, disbursement API is invoked to disburse loan amount to customer.

```
POST /api/v1/disbursements
Host: apigateway.uatisbank
x-ibm-client-id: {YOUR_CLEINT_ID}
x-ibm-client-secret: {YOUR_CLEINT_SECRET}
Authorization: Bearer {access_token}
Content-Type: application/json
{
"application_id" : "367297",
"customer_ip" : "123.234.233.23",
"order_number" : "23353"
}
```

Response sample for this call is shown below.

```
{
"data": {
"disbursed": true
```

```
},
"info": [
{
"code": "MSG",
"message": "Informational message"
}
]
}
```

If "disbursed" is true, loan amount is successfully paid to a customer.