



# FinPro SDK Integration Guide

Version 1.0.2

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## SDK Integration

To integrate FinPro SDK in any existing app, you have to do the following steps:

- Add FinPro as a **module** in the project by importing the aar file.
- Declare Module Dependency on FinPro.
- Include the FinPro dependencies into your app.

### Adding FinPro SDK (AAR File) to Your Project.

1. Open up the project structure by right-clicking on your project and choosing “**Open Module Settings**” or choosing “**File**” then “**Project Structure**”.
2. Select **Module** and Click the “+” button in the top left to add FinPro SDK (.aar).
3. Choose “**Import .JAR or .AAR Package**” and click the “**Next**” button.
4. Click on the **folder** icon to locate **finpro.aar** file to be included.
5. Finally click on **Finish**

## Add Dependency

Dependency can be added by adding below line to **'dependencies'** section of your app **build.gradle**.

```
implementation project(path: ':finpro')
```

Alternatively, follow the following steps:

1. Open up the project structure by right-clicking on your project and choosing **"Open Module Settings"** or choosing **"File"** then **"Project Structure"**.
2. Select **Dependencies** from the left side menu, select app in the **Modules** section and Click on the **"+"** button in the **Declared Dependencies** section and select **ModuleDependency**.
3. Select **finpro** and click on **OK**. Then click on **Apply** and **OK**. Done.

Add transitive Dependencies (Dependencies of Finpro SDK - aar):

Dependency to be added to the **'dependencies'** section of your app level **build.gradle**.

```
implementation 'com.android.volley:volley:1.1.0'  
implementation 'com.github.bumptech.glide:glide:3.8.0'  
implementation 'com.caverock:androidsvg-aar:1.4'
```

As we are adding the aar file directly as dependency to the project, the finpro SDK dependencies are not taken care of automatically. So, we need to include them explicitly.

## SDK Initiation

In this version we don't support maven dependency so the AAR file shared needs to be included in your application.

```
FinPro.init(context, "organizationId", "clientId", "client-secret" )  
        .setParams(PartyIdentifierType, "9876543210", "1",  
"abc123")  
        .setFinProType(FinProType)
```

## Headers for Calling API's:

```
Headers: { "organisationId": "AWE0349",
  "client_secret": "f3c2fc2b1b7605cfdb2e9d63eb76d8644a6c109f1342b8638e73bf8e63bbe63a8b770d14",
  "appIdentifier": "com.finpro.fiutestapplication.debug",
  "client_id": "fp_test_66b4eb8ef961dd26d793c3de4570c1febcbfa1708",
  "Content-Type": "application/json"
```

**Organization ID, Appidentifier, Client\_ID:** The organization ID, Client ID and Appidentifier (to be sent as part of the context) should be the same as those generated during registration on the developer portal.

**PartyIdentifierType** is an **ENUM**. It is used to specify what kind of user identifier is passed (eg. Mobile number, account CRN etc). In this version, only Mobile is supported.

**PartyIdentifierValue** is a **String**. It should be the Identifier value which is specified by **Party Identifier Type** (eg. "9876543210" <- Mobile).

**ProductId** is a string. This represents the ID assigned by you to the product (e.g. a loan product or a PFM service) for which you have configured consent parameters.

**AccountId** is a string. This represents the ID of the specific product instance, such as a loan application number or the ID of a customer who has subscribed to a PFM service. This is passed at runtime by the calling app.

**FinProType** is an Enum. It specifies the activity we want to launch first. Possible FinPro

types are given below.

- Consents List
- Get All FI Data
- Get Fi Data
- Get Balance
- Create Consent
- Select Aggregator

## Base URL for API Call:

URL: [https://sandbox.moneyone.in/finpro\\_sandbox/](https://sandbox.moneyone.in/finpro_sandbox/)

## Usage of all the supported FinPro Types

### Consents List

```
FinPro.init(context, "organizationId", "clientId")
    .setParams(PartyIdentifierType.MOBILE, "9876543210", "1", "abcd123")
    .setFinProType(FinProType.CONSENTS_LIST)
    .launch();
```

This piece of code launches the Consents list Screen of FinPro for the user with Mobile number "9876543210".

This screen lists all the consents (Active/Revoked/Pending) of the user. From here, user can request for new consent and view details of existing consents.

**Note:** User is taken to the respective AA app for consent details, where the user has an account.



## Select Aggregator

```
FinPro.init(context, "organizationId", "clientId")
    .setParams(PartyIdentifierType.MOBILE, "9876543210", "1", "abcd123")
    .setFinProType(FinProType.SELECT_AGGREGATOR)
    .launch();
```

This piece of code launches the Select Aggregator Screen of FinPro for the user with Mobile number "9876543210".

In this screen, user is presented with the list of all available AA (supported by FinPro) to create a consent request.

Here, user has an option to proceed with an existing VUA OR register with an AA, create a VUA and proceed for consent request.

# FinPro SDK API Integration:

List of available FinPro APIs Request/Response:

## 1. Get Account Aggregator List API

### API Request

!REQUEST: -----

URL: [https://sandbox.moneyone.in/finpro\\_sandbox/accountaggregatorlist](https://sandbox.moneyone.in/finpro_sandbox/accountaggregatorlist)

TYPE: AGGREGATORS\_LIST

Headers: {

  "organisationId": "SIM0401",

  "client\_secret": "994809e93e133b7a437d8fb655be2635dde0addf676259bf83271df9be3f3c76c9dd9b6e",

  "appIdentifier": "com.finpro.fiutestapplication.debug",

  "client\_id": "fp\_test\_993bcb46ffb42f0db865446ed8b90691b49699f8",

  "Content-Type": "application/json"

}

PAYLOAD: {}

-----!REQUEST

## API Response

!RESPONSE: -----

REQUEST TYPE: AGGREGATORS\_LIST

URL: https://sandbox.moneyone.in/finpro\_sandbox/accountaggregatorlist

BODY: {

  "ver": "1.11.0",

  "status": "success",

  "data": [

    {

      "name": "onemoney",

      "aald": "onemoney",

      "webUrl": "https://aa.sandbox.onemoney.in/",

      "apkUrl": "https://aa.onemoney.in",

      "logoUrl": "http://sandboxaa.onemoney.in/assets/images/logo.svg",

      "baseUrl": "aa.onemoney.in",

      "status": "Active"

    }

  ]

```
}
```

```
-----!RESPONSE
```

## 2. Request Consent API

### API Request

```
!REQUEST: -----
```

```
URL: https://sandbox.moneyone.in/finpro_sandbox/v2/requestconsent
```

```
TYPE: REQUEST_CONSENT
```

```
Headers: {
```

```
  "organisationId": "SIM0401",
```

```
  "client_secret": "994809e93e133b7a437d8fb655be2635dde0addf676259bf83271df9be3f3c76c9dd9b6e",
```

```
  "appIdentifier": "com.finpro.fiutestapplication.debug",
```

```
  "client_id": "fp_test_993bcb46ffb42f0db865446ed8b90691b49699f8",
```

```
  "Content-Type": "application/json"
```

```
}
```

```
PAYLOAD: {
```

```
  "partyIdentifierValue": "8008233551",
```

```
  "partyIdentifierType": "MOBILE",
```

```
  "productID": "TEST111",
```

```
  "accountID": "sandboxenv",
```

```
"vua": "8008233551@onemoney"  
}  
-----!REQUEST
```

## API Response

```
!RESPONSE: -----
```

```
REQUEST TYPE: REQUEST_CONSENT  
URL: https://sandbox.moneyone.in/finpro_sandbox/v2/requestconsent  
BODY: {  
  "status": "success",  
  "ver": "1.11.0",  
  "data": {  
    "status": "Pending",  
    "consent_handle": "e9c50104-d854-4970-9c51-3b10075f17c0"  
  }  
}  
-----!RESPONSE
```

### 3. Get Consents List API

#### API Request

```
!REQUEST: -----
URL: https://sandbox.moneyone.in/finpro_sandbox/v2/getconsentslist
TYPE: GET_CONSENT_LIST
Headers:{
  "organisationId": "AWE0349",
  "client_secret": "f3c2fc2b1b7605cfdb2e9d63eb76d8644a6c109f1342b8638e73bf8e63bbe63a8b770d14",
  "appIdIdentifier": "com.finpro.fiutestapplication.debug",
  "client_id": "fp_test_66b4eb8ef961dd26d793c3de4570c1febca1708",
  "Content-Type": "application/json"
}
PAYLOAD: {
  "partyIdentifierValue": "xxxxxxx551",
  "partyIdentifierType": "MOBILE",
  "productID": "1",
  "accountID": "1"
}
-----!REQUEST
```

## API Response

!RESPONSE: -----

REQUEST TYPE: GET\_CONSENT\_LIST

URL: [https://sandbox.moneyone.in/finpro\\_sandbox/v2/getconsentslist](https://sandbox.moneyone.in/finpro_sandbox/v2/getconsentslist)

BODY: {

```
"ver": "1.11.0",
"status": "success",
"data": [
  {
    "consentID": null,
    "consentHandle": null,
    "status": "PENDING",
    "productID": "1",
    "accountID": "1",
    "aald": "onemoney-aa",
    "vua": "8008233551@onemoney",
    "consentCreationData": "2020-11-20T11:45:41.000Z",
    "accounts": []
  },
  {
    "consentID": "d6473f76-e474-4b3e-ba46-ceb211ab74a2",
```

```
"consentHandle": "ba67ff9d-c51d-4772-8adc-d83fac0133d3",
"status": "ACTIVE",
"productID": "1",
"accountID": "1",
"aald": "onemoney-aa",
"vua": "8008233551@onemoney",
"consentCreationData": "2020-11-20T14:00:14.000Z",
"accounts": [
  {
    "fipName": "FinShareBankServer",
    "fipId": "finsharebank",
    "accountType": "SAVINGS",
    "linkReferenceNumber": "46f9e85c-c50b-4a1f-9b36-e9381423a03a",
    "maskedAccountNumber": "XXXXXX3551",
    "fiType": "DEPOSIT"
  }
]
}
```

-----!RESPONSE



## 4. Get Bank Account Statement API

### API Request

```
!REQUEST: -----
URL: https://sandbox.moneyone.in/finpro_sandbox/getallfidata
TYPE: GET_ALL_FI_DATA
Headers:{
  "organisationId": "SIM0401",
  "client_secret": "994809e93e133b7a437d8fb655be2635dde0addf676259bf83271df9be3f3c76c9dd9b6e",
  "applIdentifier": "com.finpro.fiutestapplication.debug",
  "client_id": "fp_test_993bcb46ffb42f0db865446ed8b90691b49699f8",
  "Content-Type": "application\json"
}
PAYLOAD: {
  "consentID": "aad63dcd-9a5b-4c32-9ea4-3b86c732de01"
}
-----!REQUEST
```

## API Response

!RESPONSE: -----

REQUEST TYPE: GET\_ALL\_FI\_DATA

URL: [https://sandbox.moneyone.in/finpro\\_sandbox/getallfidata](https://sandbox.moneyone.in/finpro_sandbox/getallfidata)

BODY: {

"ver": "1.11.0",

"status": "success",

"data": [

{

"linkReferenceNumber": "5c146815-c944-4ef9-a9b5-8445c206161d",

"maskedAccountNumber": "XXXXXX3551",

"fiType": "DEPOSIT",

"Summary": {

"currentBalance": "101666.33",

"currency": "INR",

"exchgeRate": " ",

"balanceDateTime": "2020-06-22T07:50:00.000Z",

```
"type": "SAVINGS",
"branch": "Jayanagar 4th Block",
"facility": "OD",
"ifscCode": "ICIC0001124",
"micrCode": "500240246",
"openingDate": "2004-08-06",
"currentODLimit": "0",
"drawingLimit": "0",
"status": "ACTIVE",
"Pending": [
  {
    "amount": 0,
    "transactionType": "DEBIT"
  }
],
"Profile": {
  "Holders": {
    "type": "SINGLE",
```

```
"Holder": [  
  {  
    "name": "Akshay Kumar",  
    "dob": "1947-08-15",  
    "mobile": "7992362107",  
    "nominee": "REGISTERED",  
    "landline": "",  
    "address": "8/1190, 5th Cross, 3rd Main, 7th Block, Jayanagar, Bangalore - 560011",  
    "email": "akshayku@gmail.com",  
    "pan": "AIMPN5746M",  
    "ckycCompliance": "true"  
  }  
]  
},  
"Transactions": {  
  "startDate": "2020-01-18",  
  "endDate": "2021-01-18",  
  "Transaction": [  

```

```
{
  "type": "DEBIT",
  "mode": "FT",
  "amount": "881.06",
  "currentBalance": "83760.759999999995",
  "transactionTimestamp": "2020-01-18T16:44:23.000Z",
  "valueDate": "2020-01-18",
  "txnId": "M21365896",
  "narration": "VIN/Bigtree Ent/202001181624/001821423259/ ",
  "reference": "RFN00695713"
},
{
  "type": "DEBIT",
  "mode": "CASH",
  "amount": "5000.00",
  "currentBalance": "66926.759999999995",
  "transactionTimestamp": "2020-01-24T13:44:23.000Z",
  "valueDate": "2020-01-24",
  "txnId": "M23341222",
```

```
"narration": "NFS/40782067/CASH WDL/21-01-20 ",
"reference": "RFN00770149"
},
{
  "type": "DEBIT",
  "mode": "UPI",
  "amount": "3041.91",
  "currentBalance": "63394.85",
  "transactionTimestamp": "2020-01-26T13:48:44.000Z",
  "valueDate": "2020-01-26",
  "txnId": "M24328885",
  "narration": "IPS/BIG BAZAAR /202001252118/000000023015/BANGALOR",
  "reference": "RFN00807367"
},
{
  "type": "DEBIT",
  "mode": "UPI",
  "amount": "203.00",
  "currentBalance": "63191.85",
```

```
"transactionTimestamp": "2020-01-28T06:42:33.000Z",
"valueDate": "2020-01-28",
"txnId": "M24658106",
"narration": "UPI/002611196768/On tapping Pay/freshmenu@ybl/Yes ",
"reference": "RFN00819773"
},
{
  "type": "DEBIT",
  "mode": "FT",
  "amount": "2138.00",
  "currentBalance": "61053.85",
  "transactionTimestamp": "2020-01-30T08:55:46.000Z",
  "valueDate": "2020-01-30",
  "txnId": "M24987327",
  "narration": "ACH/TP Kotak Life Ins/1800525191 ",
  "reference": "RFN00832179"
},
{
  "type": "DEBIT",
```

```
"mode": "CARD",
"amount": "300.00",
"currentBalance": "60728.85",
"transactionTimestamp": "2020-01-31T09:13:19.000Z",
"valueDate": "2020-01-31",
"txnId": "M25645769",
"narration": "VPS/PREMIER SER/202001302249/003017151561/BANGALOR",
"reference": "RFN00856991"
},
{
"type": "DEBIT",
"mode": "UPI",
"amount": "980.00",
"currentBalance": "59748.85",
"transactionTimestamp": "2020-01-31T10:21:44.000Z",
"valueDate": "2020-01-31",
"txnId": "M25974990",
"narration": "UPI/003122708332/On tapping Pay/Q30019000@ybl/ICIC",
"reference": "RFN00869397"
```



```
},
{
  "type": "DEBIT",
  "mode": "UPI",
  "amount": "20.00",
  "currentBalance": "59728.85",
  "transactionTimestamp": "2020-02-01T04:40:36.000Z",
  "valueDate": "2020-02-01",
  "txnId": "M26304211",
  "narration": "UPI/003157736639/On tapping Pay/BHARATPE.904135/IC",
  "reference": "RFN00881803"
},
{
  "type": "DEBIT",
  "mode": "CASH",
  "amount": "5000.00",
  "currentBalance": "54568.85",
  "transactionTimestamp": "2020-02-02T03:44:35.000Z",
  "valueDate": "2020-02-02",
```

```
"txnId": "M26962653",
  "narration": "NFS/SWCW5580/CASH WDL/01-02-20 ",
  "reference": "RFN00906615"
},
{
  "type": "DEBIT",
  "mode": "FT",
  "amount": "5266.26",
  "currentBalance": "49302.59",
  "transactionTimestamp": "2020-02-02T05:48:49.000Z",
  "valueDate": "2020-02-02",
  "txnId": "M27291874",
  "narration": "BIL/INFT/001910188793/ICICI CC PMT/Self ",
  "reference": "RFN00919021"
},
{
  "type": "DEBIT",
  "mode": "CARD",
  "amount": "833.00",
```

```
"currentBalance": "48469.59",
"transactionTimestamp": "2020-02-03T05:59:56.000Z",
"valueDate": "2020-02-03",
"txnId": "M27621095",
"narration": "BIL/ONL/001910495836/State Bank/SBICARD_RICI848/SB",
"reference": "RFN00931427"
},
{
  "type": "DEBIT",
  "mode": "FT",
  "amount": "2024.55",
  "currentBalance": "46295.040000000001",
  "transactionTimestamp": "2020-02-03T06:25:55.000Z",
  "valueDate": "2020-02-03",
  "txnId": "M28279537",
  "narration": "ACH/TP ExideLife/INGLife/1802506498 ",
  "reference": "RFN00956239"
},
{
```

```
"type": "DEBIT",
"mode": "CARD",
"amount": "399.00",
"currentBalance": "45898.29",
"transactionTimestamp": "2020-02-05T05:48:49.000Z",
"valueDate": "2020-02-05",
"txnId": "M28937979",
"narration": "VPS/SWATHI HOSP/202002041509/003509590219/BANGALOR",
"reference": "RFN00981051"
},
{
"type": "DEBIT",
"mode": "FT",
"amount": "5000.00",
"currentBalance": "40898.29",
"transactionTimestamp": "2020-02-05T06:52:32.000Z",
"valueDate": "2020-02-05",
"txnId": "M29267200",
"narration": "BIL/BPAY/001913373631/BSE ISIP/BSE000000034260 "
```

```
"reference": "RFN00993457"
},
{
  "type": "DEBIT",
  "mode": "CASH",
  "amount": "10000.00",
  "currentBalance": "30898.29",
  "transactionTimestamp": "2020-02-07T11:03:47.000Z",
  "valueDate": "2020-02-07",
  "txnId": "M29596421",
  "narration": "NFS/40782067/CASH WDL/05-02-20 ",
  "reference": "RFN01005863"
},
{
  "type": "DEBIT",
  "mode": "FT",
  "amount": "5000.00",
  "currentBalance": "25898.29",
  "transactionTimestamp": "2020-02-07T11:08:17.000Z",
```

```
"valueDate": "2020-02-07",
"txnId": "M29925642",
"narration": "BIL/BPAY/001915367034/MOTILAL OS/MODIRECT-B02925 ",
"reference": "RFN01018269"
},
{
  "type": "DEBIT",
  "mode": "FT",
  "amount": "5000.00",
  "currentBalance": "20898.29",
  "transactionTimestamp": "2020-02-07T11:09:55.000Z",
  "valueDate": "2020-02-07",
  "txnId": "M30254863",
  "narration": "BIL/BPAY/001915358808/BSE ISIP/BSE000000034260 ",
  "reference": "RFN01030675"
},
{
  "type": "DEBIT",
  "mode": "FT",
```

```
    "amount": "3062.00",
    "currentBalance": "17836.29",
    "transactionTimestamp": "2020-02-08T07:44:47.000Z",
    "valueDate": "2020-02-08",
    "txnId": "M30584084",
    "narration": "CMS/000611711611/AD_LIC__648652702 ",
    "reference": "RFN01043081"
  }
]
}
]
}
```

-----!RESPONSE

## 5. Get Account Transactions API

### API Request

!REQUEST: -----

URL: https://sandbox.moneyone.in/finpro\_sandbox/getfidata

TYPE: GET\_FI\_DATA

Headers: {

  "organisationId": "AWE0349",

  "client\_secret": "f3c2fc2b1b7605cfdb2e9d63eb76d8644a6c109f1342b8638e73bf8e63bbe63a8b770d14",

  "appIdentifier": "com.finpro.fiutestapplication.debug",

  "client\_id": "fp\_test\_66b4eb8ef961dd26d793c3de4570c1febcfa1708",

  "Content-Type": "application/json"

}

PAYLOAD: {

  "linkReferenceNumber": "46f9e85c-c50b-4a1f-9b36-e9381423a03a",

  "consentID": "d6473f76-e474-4b3e-ba46-ceb211ab74a2"

}

## API Response

!RESPONSE: -----

REQUEST TYPE: GET\_FI\_DATA

URL: https://sandbox.moneyone.in/finpro\_sandbox/getfidata

BODY: {



```
"ver": "1.11.0",
"status": "success",
"data": {
  "linkReferenceNumber": "46f9e85c-c50b-4a1f-9b36-e9381423a03a",
  "maskedAccountNumber": "XXXXXX3551",
  "balance": "101666.33",
  "fiName": "FinShareBankServer",
  "fiId": "finsharebank",
  "fiType": "DEPOSIT",
  "fiData": [
    {
      "transactionTimestamp": "2020-04-25T11:45:18.000Z",
      "txnId": "M64164626",
      "mode": "FT",
      "amount": "30000.00",
      "balance": "69343.47",
      "type": "DEBIT",
      "narration": "ACH\HDFCLTD\251443203 ",
      "reference": "RFN02308493",
```

```
    "valueDate": "2020-04-25"
  },
  {
    "transactionTimestamp": "2020-05-02T14:46:54.000Z",
    "txnId": "M66469173",
    "mode": "FT",
    "amount": "3294.00",
    "balance": "64190.97",
    "type": "DEBIT",
    "narration": "BIL\ONL\001973684380\State Bank\SBICARD_SICI874\SB",
    "reference": "RFN02395335",
    "valueDate": "2020-05-02"
  ]
}
```

-----!RESPONSE

## 6. Get Account Balance API

## API Request

```
!REQUEST: -----
URL: https://sandbox.moneyone.in/finpro_sandbox/getfibalance
TYPE: GET_BALANCE
Headers:{
  "organisationId": "SIM0401",
  "client_secret": "994809e93e133b7a437d8fb655be2635dde0addf676259bf83271df9be3f3c76c9dd9b6e",
  "appIdentifier": "com.finpro.fiutestapplication.debug",
  "client_id": "fp_test_993bcb46ffb42f0db865446ed8b90691b49699f8",
  "Content-Type": "application\json"
}
PAYLOAD: {
  "linkReferenceNumber": "5c146815-c944-4ef9-a9b5-8445c206161d",
  "consentID": "aad63dcd-9a5b-4c32-9ea4-3b86c732de01"
}
-----!REQUEST
```

## API Response

```
!RESPONSE: -----
```

REQUEST TYPE: GET\_BALANCE

URL: https://sandbox.moneyone.in/finpro\_sandbox/getfibalance

BODY: {

  "ver": "1.11.0",

  "status": "success",

  "data": {

    "fiType": "DEPOSIT",

    "fipld": "finsharebank",

    "fipname": "Universal Bank",

    "balance": "",

    "linkReferenceNumber": "5c146815-c944-4ef9-a9b5-8445c206161d",

    "maskedAccountNumber": "XXXXXX3551"

  }

}

-----!RESPONSE

## Notes

- FinPro handles all the necessary APIs and Invokes AA for consent approval.
- Once the Consent is approved/rejected in the AA, user is taken back to FinPro and a “Consent Confirmation” screen is shown.
- The “Continue” button on this screen closes the SDK screens and returns the user to the calling app.
- For a new user (who is not having any existing consents/not holding an AA account) Select Aggregator Screen should be presented first, so that the user can make a consent request with existing VUA or register with an AA and then make a consent request. (FinProType.SELECT\_AGREGGATOR)
- To show the list of available consents, Consents List screen to be launched. (FinProType.CONSENTS\_LIST)