

Data Protection Guide  
Oracle Banking Digital Experience  
Patchset Release 22.2.3.0.0

Part No. F72987-01

February 2024

Data Protection Guide

February 2024

Oracle Financial Services Software Limited

Oracle Park

Off Western Express Highway

Goregaon (East)

Mumbai, Maharashtra 400 063

India

Worldwide Inquiries:

Phone: +91 22 6718 3000

Fax:+91 22 6718 3001

[www.oracle.com/financialservices/](http://www.oracle.com/financialservices/)

Copyright © 2006, 2024, Oracle and/or its affiliates. All rights reserved.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are “commercial computer software” pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate failsafe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

This software or hardware and documentation may provide access to or information on content, products and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

---

## Table of Contents

<b>1. Preface .....</b>	<b>1-1</b>
1.1 Intended Audience.....	1-1
1.2 Documentation Accessibility.....	1-1
1.3 Access to Oracle Support.....	1-1
1.4 Structure .....	1-1
1.5 Related Information Sources.....	1-1
<b>2. Objective and Scope.....</b>	<b>2-1</b>
2.1 Background.....	2-1
2.2 Objective.....	2-1
2.3 Scope.....	2-1
<b>3. Personally Identifiable Information (PII).....</b>	<b>3-1</b>
<b>4. Flow of PII Data .....</b>	<b>4-1</b>
<b>5. Administration of PII Data .....</b>	<b>5-1</b>
5.1 Extracting PII data .....	5-1
5.2 Deleting or Purging PII data .....	5-4
5.3 Masking of PII data.....	5-9
<b>6. Access Control for Audit Information.....</b>	<b>6-1</b>
<b>7. User exporting the PII data .....</b>	<b>7-1</b>
<b>8. Third Party Consents.....</b>	<b>8-1</b>
<b>9. Device ID Consents .....</b>	<b>9-1</b>

---

# 1. Preface

## 1.1 Intended Audience

This document is intended for the following audience:

- Customers
- Partners

## 1.2 Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

## 1.3 Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

## 1.4 Structure

This manual is organized into the following categories:

Preface gives information on the intended audience. It also describes the overall structure of the User Manual.

The subsequent chapters describes following details:

- Introduction
- Preferences & Database
- Configuration / Installation.

## 1.5 Related Information Sources

For more information on Oracle Banking Digital Experience Patchset Release 22.2.3.0.0, refer to the following documents:

- Oracle Banking Digital Experience Installation Manuals

---

## 2. Objective and Scope

### 2.1 Background

OBDX is designed to help banks respond strategically to today's business challenges, while also transforming their business models and processes to reduce operating costs and improve productivity across both front and back offices. It is a one-stop solution for a bank that seeks to leverage Oracle Fusion experience across its core banking operations across its retail and corporate offerings.

OBDX provides a unified yet scalable IT solution for a bank to manage its data and end-to-end business operations with an enriched user experience. It comprises pre-integrated enterprise applications leveraging and relying on the underlying Oracle Technology Stack to help reduce in-house integration and testing efforts.

In order to provide these services OBDX needs to acquire, use or store personally identifiable information (PII). In some cases, OBDX may be owner of the PII data and in some other cases OBDX might just acquire and use this data for providing required services to the customer.

### 2.2 Objective

By the very nature of PII data, it is necessary for the Bank to be aware of the information being acquired or used or stored by OBDX. This knowledge will enable the Bank to take necessary measures and put apt policies and procedures in place to deal with PII data. In some of the geographies Bank might need to comply with local laws and regulations for dealing with PII data. This document attempts to provide necessary information so as to enable the Bank to do so.

### 2.3 Scope

This document is intended for technical staff of the Bank as well as administration users of the Bank and provides information about following aspects of the PII data.

- Identifies what PII data is acquired, used or stored in OBDX
- Process to extract PII data from OBDX
- Process to purge and delete the PII data from OBDX

#### **Out of scope**

This document does not intend to suggest that OBDX is out of box compliant with any local laws and regulations related to data protection. The purpose of this document is to provide information about PII data dealt with in the system so that the Bank can put in place appropriate processes to comply with laws and regulations of the land.

[Home](#)

### 3. Personally Identifiable Information (PII)

Personally identifiable information (PII) is any data that could potentially identify a specific individual. Any information that can be used to distinguish one person from another and can be used to de-anonymizing anonymous data can be considered PII.

OBDX needs to acquire, use or store some PII data of the customers of the Bank in order to perform its desired services. This section declares the PII data captured by OBDX so that the Bank is aware of the same and adopts necessary operational procedures and checks in order to protect PII data in the best interest of its customers.

Fields	OBDX 22.2
<b>Bank account information</b>	Yes
<b>Beneficiaries</b>	Yes
<b>Biometric records</b>	No
<b>Birthplace</b>	No
<b>Bonus</b>	No
<b>Country, state, or city of residence</b>	Yes
<b>Credit card numbers</b>	No
<b>Criminal record</b>	No
<b>Date of birth</b>	Yes
<b>Digital identity</b>	No
<b>Disability leave</b>	No
<b>Driver's license number</b>	Yes
<b>Education history</b>	No
<b>Email address</b>	Yes
<b>Emergency contacts</b>	No
<b>Employee ID</b>	Yes
<b>Ethnicity</b>	No
<b>Financial information and accounts</b>	Yes
<b>Fingerprints</b>	No

Fields	OBDX 22.2
<b>Full name</b>	Yes
<b>Gender</b>	Yes
<b>Genetic information</b>	No
<b>Health information (including conditions, treatment, and payment)</b>	No
<b>Healthcare providers and plans</b>	No
<b>Personal/office telephone numbers</b>	Yes
<b>IP address</b>	No
<b>Job title</b>	Yes
<b>Login name</b>	Yes
<b>MAC address</b>	Yes
<b>Marital status</b>	Yes
<b>Military rank</b>	No
<b>Mother's maiden name</b>	No
<b>National identification number</b>	Yes
<b>Passport number</b>	Yes
<b>Performance evaluation</b>	No
<b>Personal phone number</b>	Yes
<b>Photographic images</b>	No
<b>PIN numbers</b>	Yes
<b>Political affiliations</b>	No
<b>Property title information</b>	No
<b>Religion</b>	No
<b>Salary</b>	Yes
<b>Screen name</b>	No

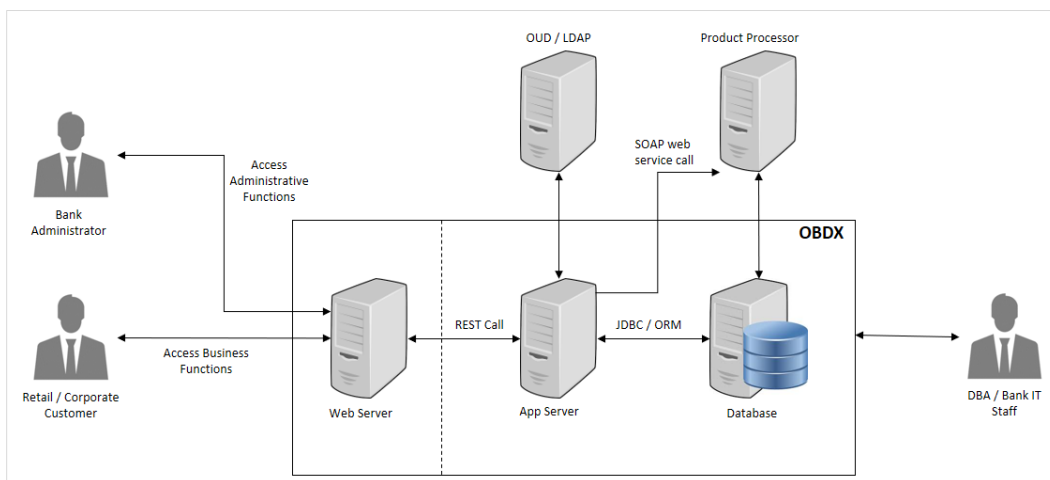
Fields	OBDX 22.2
<b>Sexual life</b>	No
<b>Social security number</b>	Yes
<b>Taxpayer information</b>	Yes
<b>Union membership</b>	No
<b>Vehicle registration number</b>	Yes
<b>Work telephone</b>	Yes
<b>Citizenship Number</b>	No
<b>Geo-Location</b>	No
<b>Product has Customer defined fields</b>	No
<b>Mobile Subscriber Identifier (IMSI)</b>	No
<b>Surname</b>	Yes
<b>First name</b>	Yes

[Home](#)



## 4. Flow of PII Data

This section depicts the flow 'personally identifiable information' (PII) within the OBDX system in the form of a data flow diagram.



The Bank Administrator is Bank's employee who is performing administrative functions using OBDX. As part of these, he will be dealing with PII data. An example is that the Administrator creates Retail and Corporate users in OBDX and while creating users he/she enters user information such as first name, last name, email address, mobile number, correspondence address etc.

Retail / Corporate Customer is Bank's customer who is accessing the online banking features. As part of this he/she will be able to see his/her accounts, balances, beneficiaries, transactions, profile details etc. Note that OBDX also supports onboarding of new users. The system captures some user information such as first name, last name, email address, mobile number, correspondence address and financial information such as income profile.

DBA / Bank IT Staff is Bank's employee who is not a user of OBDX but has access to the database that stores OBDX bank end data or the server environments on which OBDX is deployed.

Web server typically contains static web content such as styling information (CSS), Javascript resources, images, static HTMLs etc. Web server passes the REST service calls to Application server.

Application (App) Server is the server on which OBDX services are deployed. This server performs required processing on the service calls. It does use the database for retrieval or storage of data. It can also connect to external user credential store (such as OUD or Open LDAP). It can also connect to core product processor to enquiring CIF or Account related data or for posting any transactions initiated by the Retail or Corporate customer.

Database is the persistence store for OBDX. It can contain primary configuration data, user data and transactional data.

ODU / LDAP represents the external user credentials store. OBDX does not maintain user credentials locally but depends on external specialized software to do that. An example can be Oracle Unified Directory (ODU) or Open LDAP.

Product Processor is the core banking solution which actually processes actual banking transactions. OBDX connects to the product processor to fetch data such as CIFs or Accounts or transactions. It also connects to the product processor to post new transaction initiated by Retail or Corporate customer.

[Home](#)

## 5. Administration of PII Data

This section provides information about doing administrative tasks on PII data. This includes retrieval, modification, deletion or purging of such data.

### 5.1 Extracting PII data

OBDX stores some PII data in its database and it also accesses data stored or owned by external systems such as OUD / LDAP or product processor.

#### 5.1.1 Data stored in OBDX

This section provides information about the tables that store PII data. This information is useful for the Bank to extract PII information.

PII Data	Table
<b>Bank account information</b>	DIGX_AC_ACCOUNT_NICKNAME DIGX_AM_ACCOUNT_ACCESS DIGX_AM_ACCOUNT_EXCEPTION
<b>Beneficiaries</b>	DIGX_PY_PAYEEGROUP DIGX_PY_PAYEE DIGX_PY_DOMESTIC_UK_PAYEE DIGX_PY_INTERNAL_PAYEE DIGX_PY_DEMANDDRAFT_PAYEE DIGX_PY_INTNATNL_PAYEE_BNKDTLS DIGX_PY_DOMESTIC_INDIA_PAYEE DIGX_PY_PEERTOPEER_PAYEE DIGX_PY_INTERNATIONAL_PAYEE DIGX_PY_DOMESTIC_SEPA_PAYEE DIGX_PY_GLOBAL_PAYEE
<b>Country, state, or city of residence</b>	DIGX_OR_APPLICANT, DIGX_OR_APPLICANT_ADDRESS  DIGX_UM_USERPROFILE
<b>Date of birth</b>	DIGX_OR_APPLICANT DIGX_UM_USERPROFILE
<b>Driver's license number</b>	DIGX_OR_APLT_IDNT

PII Data	Table
<b>Email address</b>	DIGX_OR_APPLICANT_CONTACT DIGX_OR_EMAIL_VERIFICATION (used only for email verification, data is purged once email is verified) DIGX_UM_USERPROFILE
<b>Email ID</b>	DIGX_AP_TRANSACTION
<b>Employee ID</b>	DIGX_OR_APLT_EMPT
<b>Financial information and accounts</b>	Only financial information(Income, Asset, expense, Liability) DIGX_OR_APLT_FIN_INCM, DIGX_OR_APLT_FIN_AST, DIGX_OR_APLT_FIN_EXP, DIGX_OR_APLT_FIN_LIB
<b>Full name</b>	DIGX_OR_APPLICANT DIGX_UM_USERPROFILE DIGX_AP_TRANSACTION
<b>Gender</b>	DIGX_OR_APPLICANT
<b>Personal/office telephone numbers</b>	DIGX_OR_APPLICANT_CONTACT DIGX_UM_USERPROFILE DIGX_AP_TRANSACTION
<b>Job title</b>	DIGX_OR_APLT_EMPT  DIGX_UM_USERPROFILE
<b>Login name</b>	DIGX_UM_USERAPPDATA DIGX_UM_USERPARTY_RELATION USERS GROUPMEMBERS DIGX_UM_USERPROFILE DIGX_AM_ACCOUNT_ACCESS
<b>MAC Address</b>	DIGX_AUDIT_LOGGING
<b>Marital status</b>	DIGX_OR_APPLICANT

PII Data	Table
National identification number	DIGX_OR_APLT_IDNT
Passport number	DIGX_OR_APLT_IDNT
Personal phone number	DIGX_OR_APPLICANT_CONTACT
PIN numbers	DIGX_OR_APPLICANT_ADDRESS
Salary	DIGX_OR_APLT_FIN_INCM, DIGX_OR_APLT_EMPT
Social security number	DIGX_OR_APLT_IDNT
Taxpayer information	DIGX_OR_APLT_IDNT
Vehicle registration number	DIGX_OR_APLT_IDNT
Work telephone	DIGX_OR_APPLICANT_CONTACT
Surname	DIGX_OR_APPLICANT DIGX_UM_USERPROFILE DIGX_AP_TRANSACTION
First name	DIGX_OR_APPLICANT DIGX_UM_USERPROFILE DIGX_AP_TRANSACTION

Please note that OBDX provides user interface to access most of this data. The data will be accessible to you only if you have required roles and policies mapped to your OBDX login. For example, an Administrator user can see retail user's profile only if he is entitled by a policy to access this information.

### 5.1.2 Data stored outside OBDX

OBDX can store user information in external systems such as OUD or LDAP. OBDX provides screens for fetching this data. Please refer to the '**User Management**' topic of **User Manual Oracle Banking Digital Experience Core** of OBDX.

[https://docs.oracle.com/cd/F40800\\_01/um\\_docs/User%20Manual%20Oracle%20Banking%20Digital%20Experience%20Core.pdf](https://docs.oracle.com/cd/F40800_01/um_docs/User%20Manual%20Oracle%20Banking%20Digital%20Experience%20Core.pdf)

Also note that the data can be accessed directly from the external system i.e. OUD, Open LDAP or the Product Processor. These details are outside the scope of this document. Please refer to the manual of corresponding software for more details.

## 5.2 **Deleting or Purging PII data**

There are two ways in which PII data can be deleted or purged from the system.

### 5.2.1 **Using User Interface**

The information created in (or owned by) OBDX can be deleted from its user interface. For example, a retail user can delete the beneficiaries he/she has maintained. Please refer to 'Manage Payee' section of following user manual for more details.

[https://docs.oracle.com/cd/F30659\\_01/um\\_docs/User%20Manual%20Oracle%20Banking%20Digital%20Experience%20Retail%20Payments.pdf](https://docs.oracle.com/cd/F30659_01/um_docs/User%20Manual%20Oracle%20Banking%20Digital%20Experience%20Retail%20Payments.pdf)

Note that user's data such as CIF or account number is not owned by OBDX and hence it cannot be deleted from OBDX. However information such as account access granted to a particular user can be modified or deleted by the bank administrator. Please refer to 'Party Account Access' and 'User Account Access' sections of the Core user manual for more details.

[https://docs.oracle.com/cd/F30659\\_01/um\\_docs/User%20Manual%20Oracle%20Banking%20Digital%20Experience%20Core.pdf](https://docs.oracle.com/cd/F30659_01/um_docs/User%20Manual%20Oracle%20Banking%20Digital%20Experience%20Core.pdf)

### 5.2.2 **Using purge procedures**

OBDX provides some out of the box purge procedure that can be used to purge the data. Otherwise the DBA / IT staff can prepare similar procedures to purge required data. However note that it is not recommended to purge or delete any data stored in OBDX tables without doing detailed impact analysis. Please also note that the purge jobs are useful typically for purging old data. They may not be useful for purging data of a specific customer.

#### **Procedure name –**

DIGX\_USER\_PII\_DATA\_PURGE.sql

Procedure input parameter –

User Id (unique identifier of user) which is to be purged.

#### **Description -**

DIGX\_USER\_PII\_DATA\_PURGE will permanently purge the user and all the PII data associated with the user from all the database tables of OBDX.

It must be noted that once user is purged then associated PII data and user cannot be retrieved under any circumstances.

#### **Associated table –**

This table holds data of table names and field names of tables containing User Id. Procedure fetches data from table DIGX\_UM\_USERS\_ASSOCIATIONS and deletes all the PII data related to the provided User Id

**Steps to run -**

Run the procedure with providing User Id as input parameter.

**5.2.3 Manual truncation of data from backend**

In scenarios where OBDX does not have user interface to remove customer data and scheduled purge option is not useful, then data needs to be purged using SQL scripts. Below section provides some queries that can be used for such a purging. This option must be used with utmost care and proper impact analysis must be done before using these scripts.

PII Data	Table	Script
<b>For modules other than Origination:</b>  <b>Personal information of user including Country, state, or city of residence, Date of birth, Email address, Employee ID, Full name, Gender, Personal/office telephone numbers, Login name, Work telephone, First Name, Surname</b>	USERS GROUPMEMBERS DIGX_UM_USERPROFILE DIGX_UM_USERAPPDATA DIGX_UM_USERPARTY_RELATION DIGX_UM_REGISTRATION	<pre>delete from digx_um_userparty_relation where user_id = '&lt;USER IDENTIFIER&gt;';  delete from digx_um_userappdata where id = '&lt;USER IDENTIFIER&gt;';  delete from DIGX_UM_USERPROFILE where U_NAME = '&lt;USER IDENTIFIER&gt;';  delete from GROUPMEMBERS where G_MEMBER = '&lt;USER IDENTIFIER&gt;';  delete from USERS where U_NAME = '&lt;USER IDENTIFIER&gt;';</pre>
<b>Bank Account Information</b>	DIGX_AC_ACCOUNT_NICKNAME DIGX_AM_ACCOUNT_ACCESS DIGX_AM_ACCOUNT_EXCEPTION	<pre>delete from DIGX_AC_ACCOUNT_NICKNAME where USER_ID = &lt;USER IDENTIFIER&gt;;</pre>

PII Data	Table	Script
		<pre>delete from DIGX_AM_ACCOUNT_EXCEPTION where ACCOUNT_ACCESS_ID in (select ACCOUNT_ACCESS_ID from DIGX_AM_ACCOUNT_ACCESS where ACCESS_LEVEL = 'USER' and USERID = &lt;USER IDENTIFIER&gt;);  delete from DIGX_AM_ACCOUNT_ACCESS where ACCESS_LEVEL = 'USER' and USERID = &lt;USER IDENTIFIER&gt;;</pre>
<b>Beneficiaries</b>	<p>DIGX_PY_PAYEEGROUP  DIGX_PY_PAYEE  DIGX_PY_DOMESTIC_UK_PAYEE  DIGX_PY_INTERNAL_PAYEE  DIGX_PY_DEMANDDRAFT_PAYEE  DIGX_PY_INTNATNL_PAYEE_BNK  DTLS  DIGX_PY_DOMESTIC_INDIA_PAYEE  DIGX_PY_PEERTOPEER_PAYEE  DIGX_PY_INTERNATIONAL_PAYEE  DIGX_PY_DOMESTIC_SEPA_PAYEE</p>	<pre>delete from DIGX_PY_INTERNAL_PAYEE where PAYEE_ID in (select PAYEE_ID from DIGX_PY_PAYEE where CREATED_BY = &lt;USER IDENTIFIER&gt;);  delete from DIGX_PY_DOMESTIC_UK_PAYEE where PAYEE_ID in (select PAYEE_ID from DIGX_PY_PAYEE where CREATED_BY = &lt;USER IDENTIFIER&gt;);  delete from DIGX_PY_DEMANDDRAFT_PAYEE where PAYEE_ID in (select PAYEE_ID from DIGX_PY_PAYEE where CREATED_BY = &lt;USER IDENTIFIER&gt;);  delete from DIGX_PY_INTNATNL_PAYEE_BNK DTLS where PAYEE_ID in (select PAYEE_ID from DIGX_PY_PAYEE where CREATED_BY = &lt;USER IDENTIFIER&gt;);  delete from DIGX_PY_INTERNATIONAL_PAYEE</pre>



PII Data	Table	Script
		<pre> where PAYEE_ID in (select PAYEE_ID from DIGX_PY_PAYEE where CREATED_BY = &lt;USER IDENTIFIER&gt;);  delete from DIGX_PY_DOMESTIC_INDIA_PAYE E  where PAYEE_ID in (select PAYEE_ID from DIGX_PY_PAYEE where CREATED_BY = &lt;USER IDENTIFIER&gt;);  delete from DIGX_PY_PEERTOPEER_PAYEE  where PAYEE_ID in (select PAYEE_ID from DIGX_PY_PAYEE where CREATED_BY = &lt;USER IDENTIFIER&gt;);  delete from DIGX_PY_DOMESTIC_SEPA_PAYE E  where PAYEE_ID in (select PAYEE_ID from DIGX_PY_PAYEE where CREATED_BY = &lt;USER IDENTIFIER&gt;);  delete from DIGX_PY_PAYEE where CREATED_BY = &lt;USER IDENTIFIER&gt;;  delete from DIGX_PY_PAYEEGROUP where CREATED_BY = &lt;USER IDENTIFIER&gt;; </pre>

PII Data	Table	Script
<b>Party/User Information in Originations</b>	DIGX_OR_APPLICANT	delete from DIGX_OR_APLT_FIN_INCM where APPLICANT_ID = '<APPLICANT IDENTIFIER>';
	DIGX_OR_APPLICANT_ADDRESS	
	DIGX_OR_APLT_IDNT	delete from DIGX_OR_APLT_FIN_AST where APPLICANT_ID = '<APPLICANT IDENTIFIER>';
	DIGX_OR_APPLICANT_CONTACT	
	DIGX_OR_EMAIL_VERIFICATION	delete from DIGX_OR_APLT_FIN_EXP where APPLICANT_ID = '<APPLICANT IDENTIFIER>';
	DIGX_OR_APLT_EMPT	
	DIGX_OR_APLT_FIN_INCM	delete from DIGX_OR_APLT_FIN_LIB where APPLICANT_ID = '<APPLICANT IDENTIFIER>';
	DIGX_OR_APLT_FIN_AST	
	DIGX_OR_APLT_FIN_EXP	delete from DIGX_OR_APLT_EMPT where APPLICANT_ID = '<APPLICANT IDENTIFIER>';
	DIGX_OR_APLT_FIN_LIB	
delete from DIGX_OR_APLT_EMPT where APPLICANT_ID = '<APPLICANT IDENTIFIER>';	delete from DIGX_OR_APLT_IDNT where APPLICANT_ID = '<APPLICANT IDENTIFIER>';	delete from DIGX_OR_APPLICANT_CONTACT where APPLICANT_ID = '<APPLICANT IDENTIFIER>';
delete from DIGX_OR_EMAIL_VERIFICATION where SUBMISSION_ID = '<SUBMISSION IDENTIFIER>';	delete from DIGX_OR_APPLICANT_ADDRESS where APPLICANT_ID = '<APPLICANT IDENTIFIER>';	delete from DIGX_OR_APPLICANT where PARTY_ID = '<PARTY IDENTIFIER>';

### 5.3 **Masking of PII data**

OBDX framework provides a facility to mask user sensitive information before showing on the screen. Masking is a process in which only some portion of the data is displayed to the user while remaining portion of the data is either skipped or is replaced with hash characters such as '\*'. Main purpose of masking is to avoid a possibility of 'over the shoulder' stealing of sensitive information. However it is also used so that the clear text sensitive information is not logged in system logs.

A typical example of masking is the account numbers. When OBDX API is invoked that contains Account number in the response, the API will always give masked value. So complete clear text account number is never displayed on the screen.

OBDX provides masking for following fields out of the box.

Sr. No	Field Name
1	Party Identifier
2	Account Number (Includes current account, saving account, deposit, loan account)
3	Mobile/phone number
4	E-mail ID
5	Social Security Number
6	Submission Identifier
7	Application Identifier

OBDX framework also provides a provision in which any field other than the ones mentioned in the above table can also be masked as per the requirement. This can be achieved by following steps:

1. Create a complex datatype in OBDX. This datatype must extend `com.ofss.digx.datatype.complex.MaskedIndirectedObject`
2. Define a 'masking qualifier' and a 'masking attribute'
3. Configure this masking qualifier and masking attribute in `DIGX_FW_CONFIG_ALL_B`. An example of the configurations for account number mask is given below

```
INSERT INTO digx_fw_config_all_b (PROP_ID, CATEGORY_ID, PROP_VALUE,
FACTORY_SHIPPED_FLAG, PROP_COMMENTS, SUMMARY_TEXT, CREATED_BY,
CREATION_DATE, LAST_UPDATED_BY, LAST_UPDATED_DATE, OBJECT_STATUS,
OBJECT_VERSION_NUMBER)
```

```
VALUES (*.account_id', 'Masking', 'AccountNumberMasking<', 'Y', null, null, 'ofssuser', sysdate,
'ofssuser', sysdate, 'A', 1);
```

```
INSERT INTO digx_fw_config_all_b (PROP_ID, CATEGORY_ID, PROP_VALUE,
FACTORY_SHIPPED_FLAG, PROP_COMMENTS, SUMMARY_TEXT, CREATED_BY,
CREATION_DATE, LAST_UPDATED_BY, LAST_UPDATED_DATE, OBJECT_STATUS,
OBJECT_VERSION_NUMBER)
```

```
VALUES ('AccountNumberMasking', 'MaskingPattern', 'xxxxxxxxxxxxNNNN', 'Y', null, null,
'ofssuser', sysdate, 'ofssuser', sysdate, 'A', 1);
```

With above steps, the OBDX framework will make sure to mask the data of this data type during the serialization phase in the REST tier.

The masking pattern can contain the following characters

1. N – Original character in the data will be retained
2. H – Original character in the data will be skipped
3. \* (Or any other placeholder character) – Original character in the data will be replaced with this character

[Home](#)

## 6. Access Control for Audit Information

OBDX provides mechanism for maintaining audit trail of transactions / activities done by its users in the system. This audit trail is expected to be used for customer support, dispute handling. It can also be used for generating some management reports related to feature usage statistics etc.

From a data protection perspective it is worth noting that the audit trail contains.

PII data in the form of transactional data as well as usage trends or statistics. Hence it is necessary for the Bank to put in place appropriate access control mechanisms so that only authorized Bank employees get access to this data. OBDX provides comprehensive access control mechanism that the Bank can leverage to achieve this.

This access control can be achieved using the role based transaction mapping. This section focuses specifically from data protection aspect. You are requested to go through the user manual for 'Role Transaction Mapping' before reading further in this section. As an example, we have considered a use case where the Bank wants to restrict access to 'Audit Log' feature so that only the permitted set of administration users will be able to access audit of the users. Please note that same process can be applied to other services that deal with PII data. For example, same process can be used for restricting access to user management functions.

### Check the 'out of box' access granted

There are two ways to check the Audit Information

- Maintenance
- Utilization

### Maintenance (Performed by system admin)

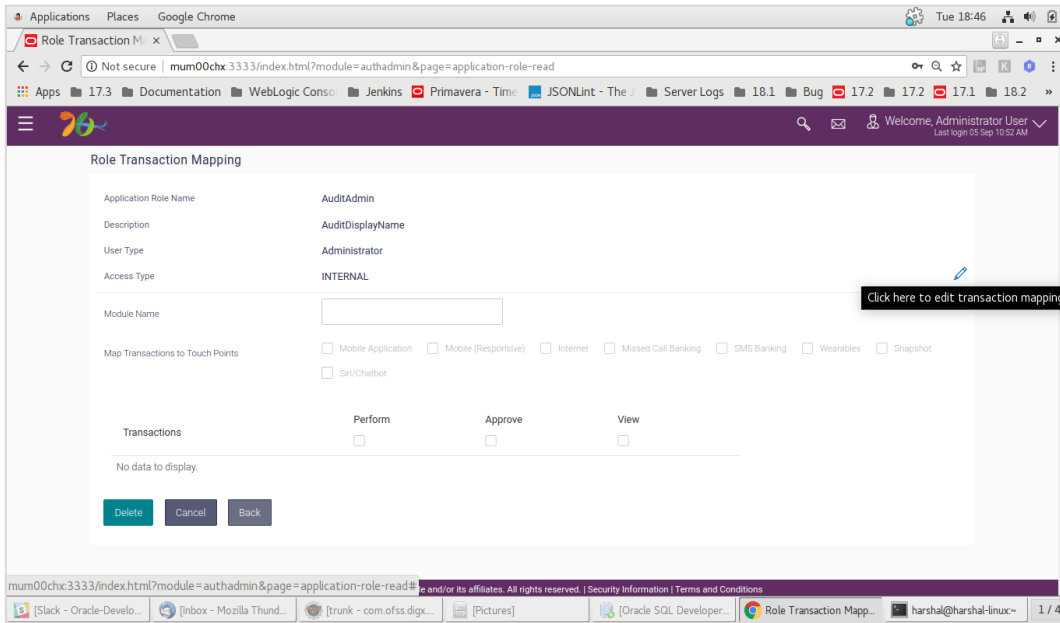
1. Log in using Authadmin credentials.
2. Go to tab Role Transaction Mapping.
3. Find application role named "AuditAdmin" or "AuthAdmin".

The screenshot displays the 'Role Transaction Mapping' interface. At the top, there is a search bar for 'Application Role Name' with 'Search', 'Cancel', and 'Clear' buttons. Below this is a table titled 'Application Role Details' with two tabs: 'Internal' and 'External'. The 'Internal' tab is active, showing a list of roles:

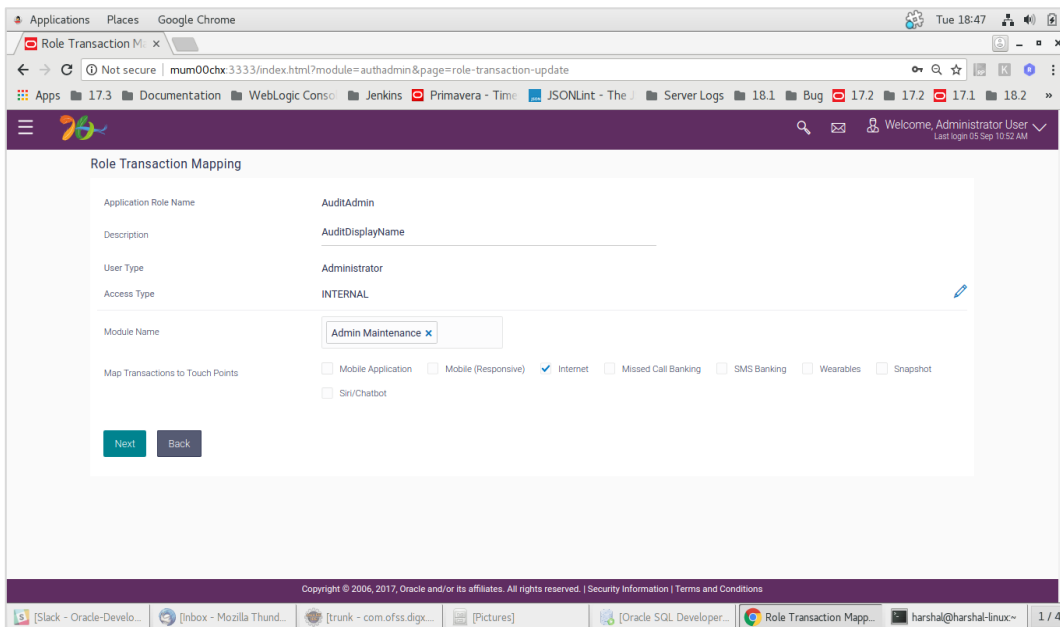
Role Name	Display Name
Administrator	AdminMakerDisplayName
AdminMaker	AdminCheckerDisplayName
AdminChecker	AuthAdminDisplayName
AuthAdmin	asa
payment	AuditDisplayName
AuditAdmin	

To the right of the table is a 'Note' section with a blue icon of a notepad. The note text reads: 'An Application may have several Application Roles for different type of users under different User Segments i.e. Retail, Corporate and Admin. These roles can be defined for internal as well as for external Access points and various transactions needs to be mapped to it. Click below to create an Application Role and map it to various transactions for selected access points.' Below the note is a 'Create' button.

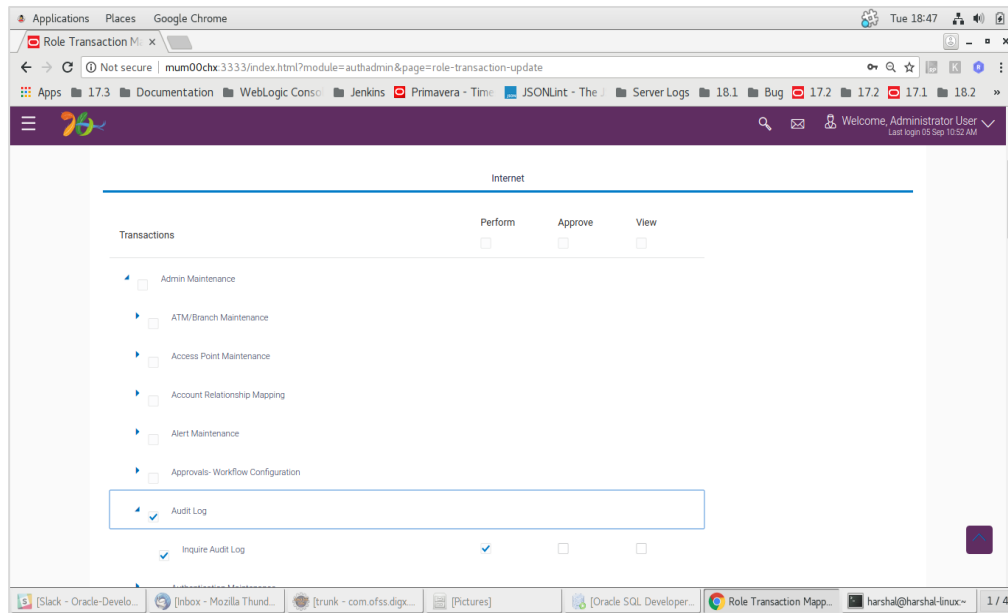
4. Click on AuditAdmin and click on edit symbol as shown.



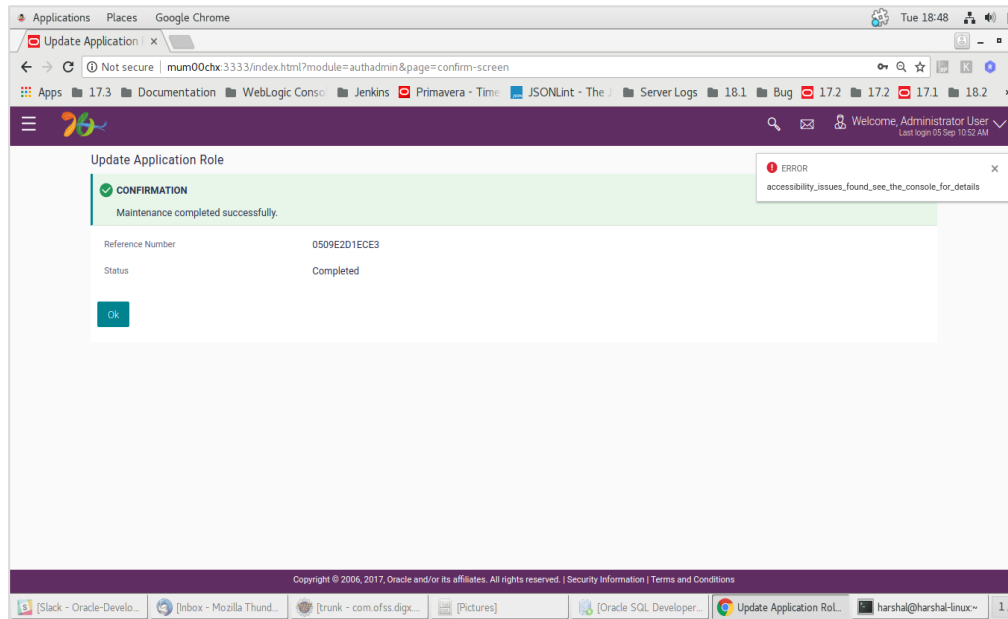
5. Assign module name “Admin Maintenance” and check “Internet”.



6. Under Admin maintenance give access of Module name Audit log to it and click save.

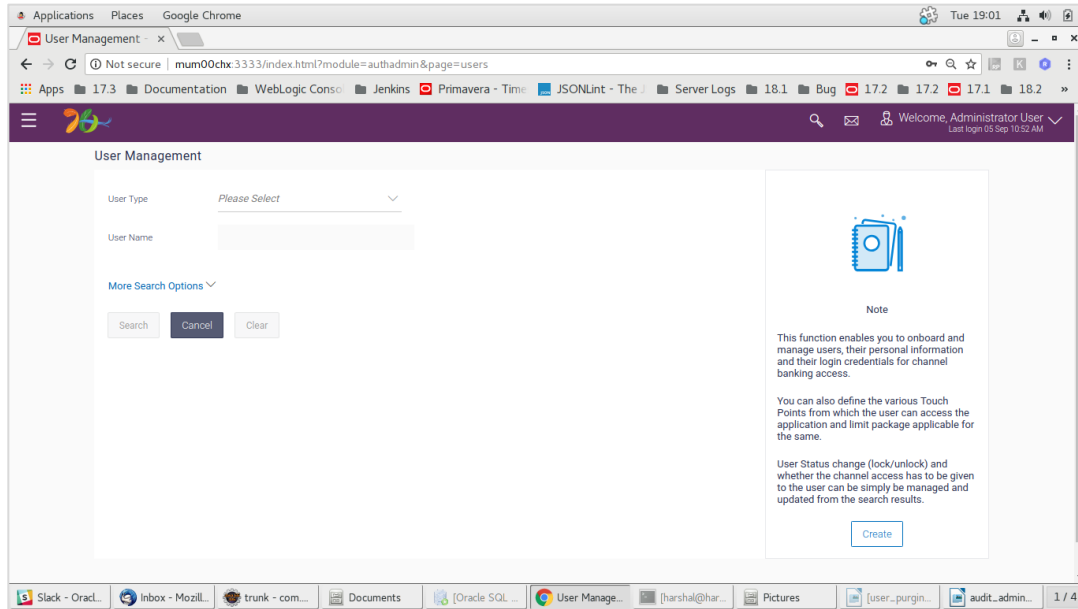


7. Submit.

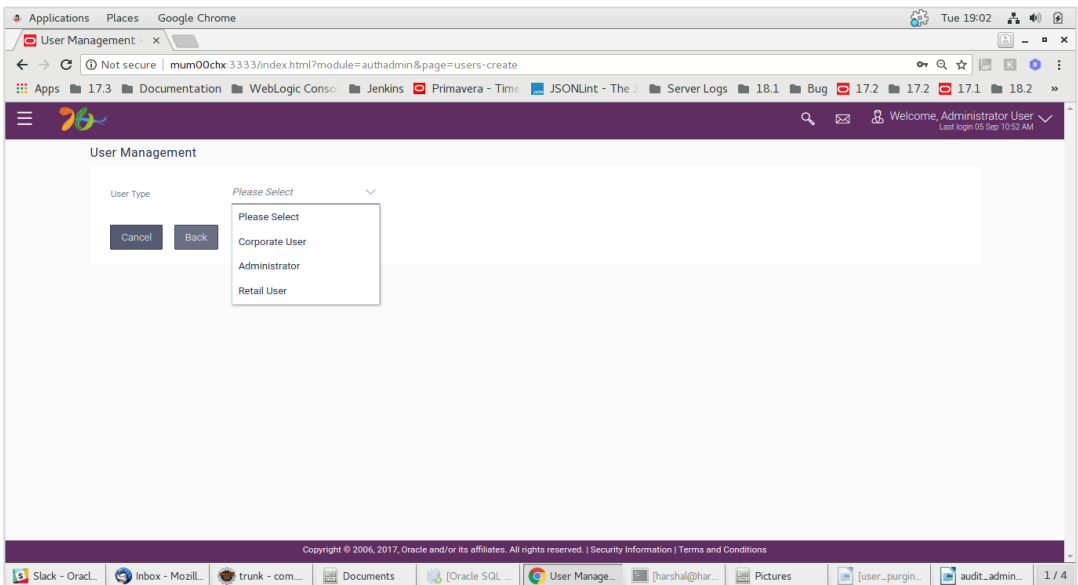


## Utilization

1. Go to user management.
2. Click "Create" user.



3. Select Administrator.





4. Fill necessary details.

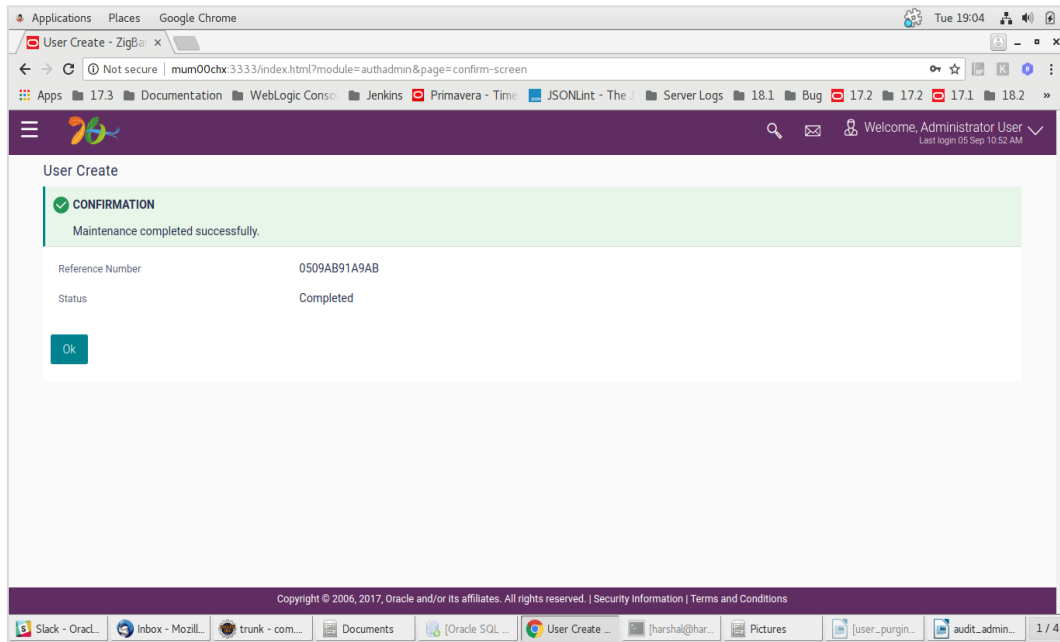
The screenshot shows the 'Create User' form in the Oracle User Management interface. The form is titled 'User Management' and contains the following fields and values:

- User Type: Administrator
- Organization: Oracle
- Manager: ABC
- Employee Number: 121212
- User Name: AuditAdminUser (Available)
- Title: Mr
- First Name: AuditAdminUser
- Middle Name: (empty)
- Last Name: AuditAdminUser
- Date of Birth: 04 Sep 2018

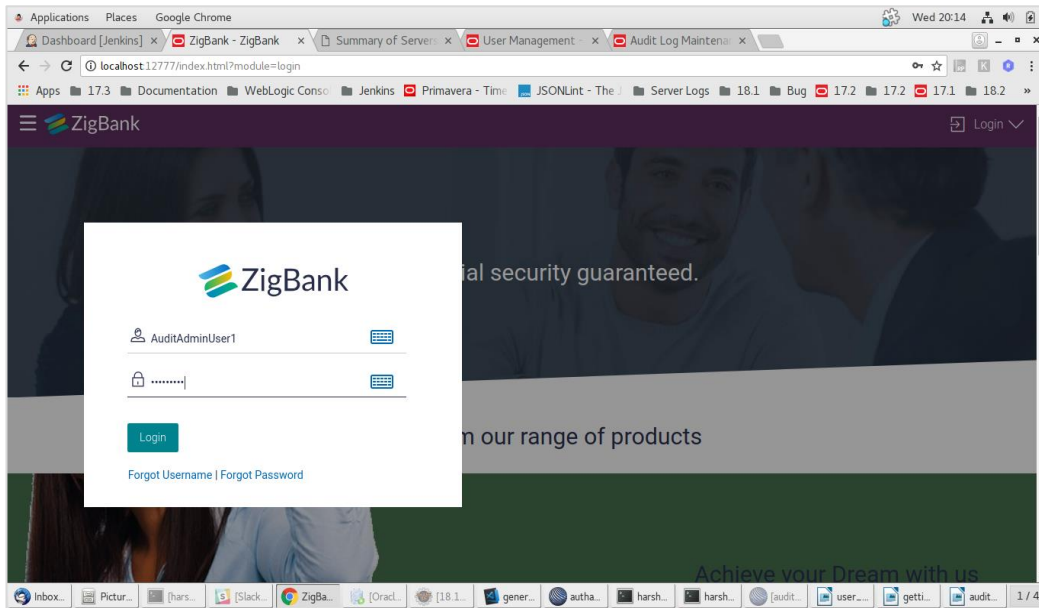
5. Select AuditAdmin or Authadmin as an application role.

The screenshot shows the 'Create User' form in the Oracle User Management interface, specifically the 'Roles' section. The 'AuditAdmin' role is selected with a checked checkbox. Other roles listed include AdminMaker, AdminChecker, AuthAdmin, and payment. The 'Select Touch Points' section includes options for Mobile Application, Mobile (Responsive), Internet, Missed Call Banking, SMS Banking, Wearables, Snapshot, and Siri/Chatbot.

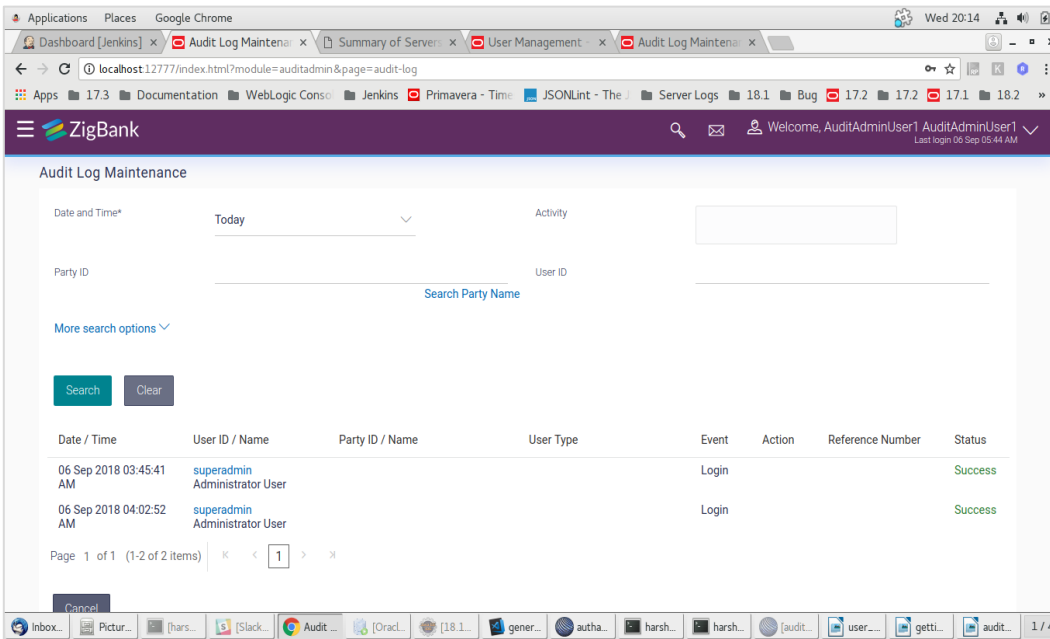
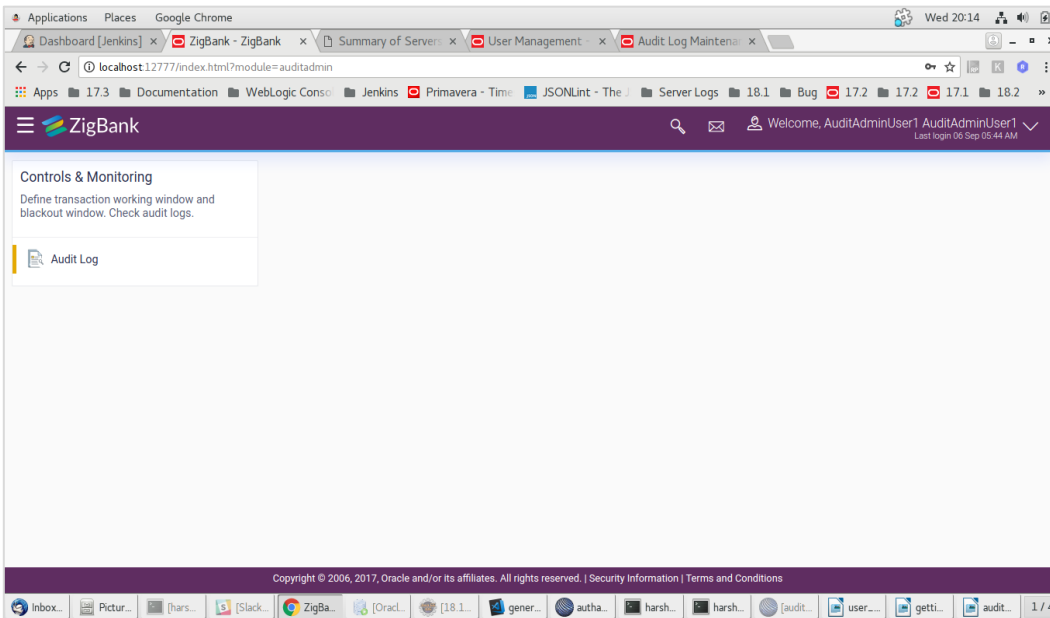
## 6. Submit



## 7. Log in using created user.



8. User can access audit log.



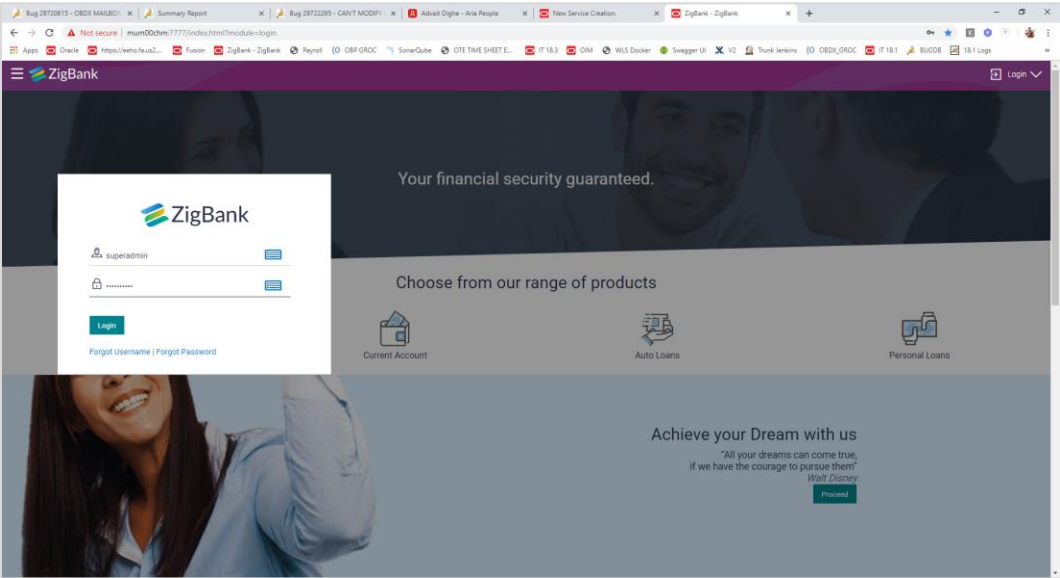
[Home](#)

# 7. User exporting the PII data

This functionality will allow to download of user wise PII in CSV formats.

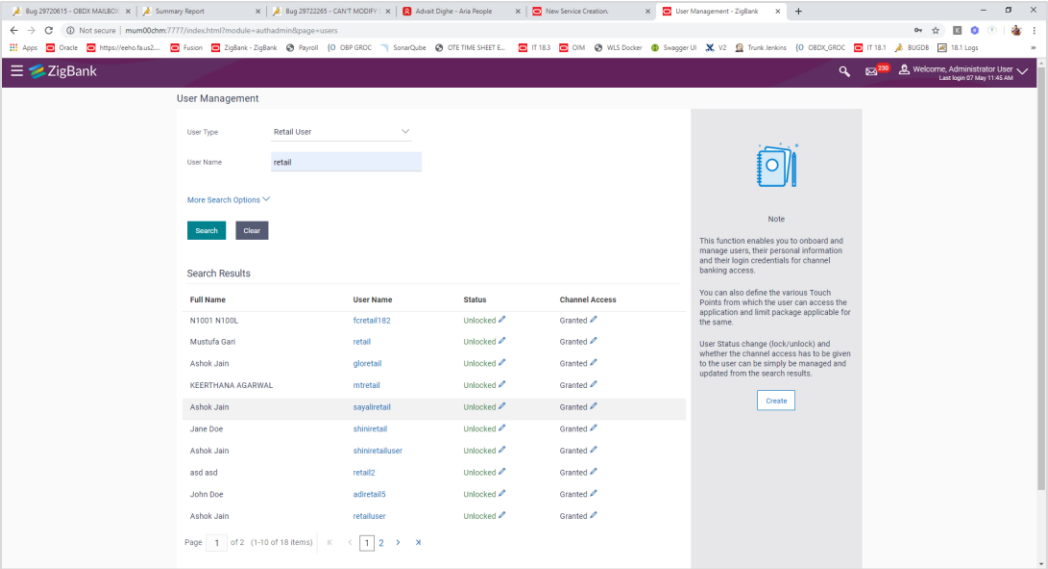
## 7.1 Administrator

### 1. Login as administrator

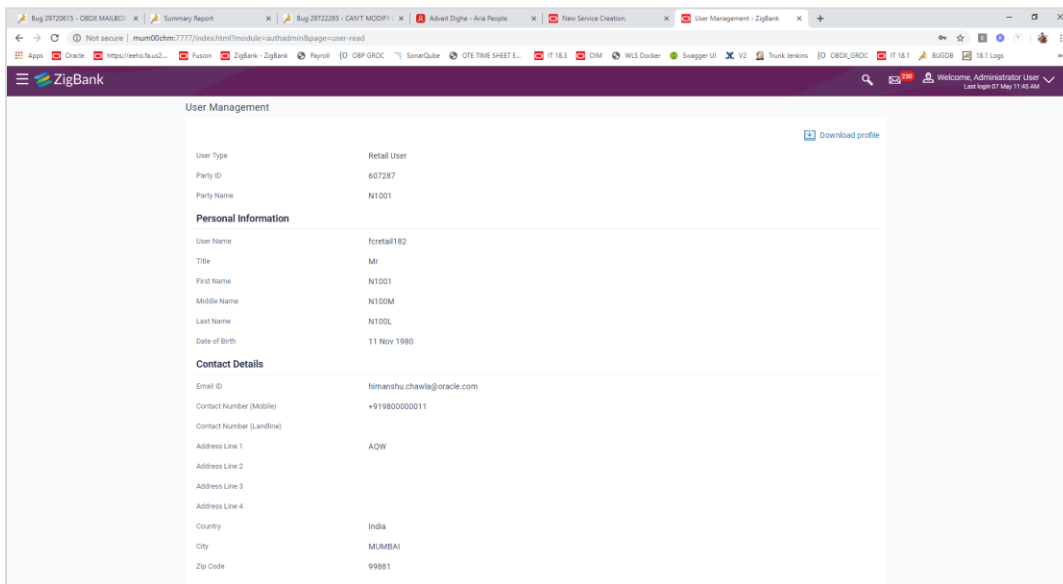


### 2. Click on “User Management” and search for any user (Corporate User/ Administrator / Retail User)

then clicked on the any “User Name” from the list of search users.

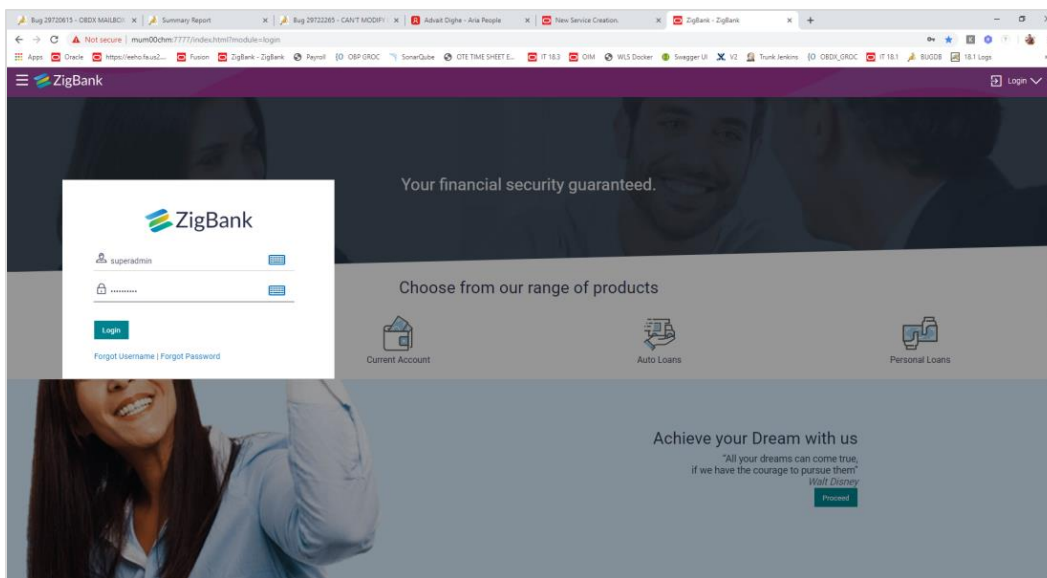


3. Clicked on the “Download profile” link.

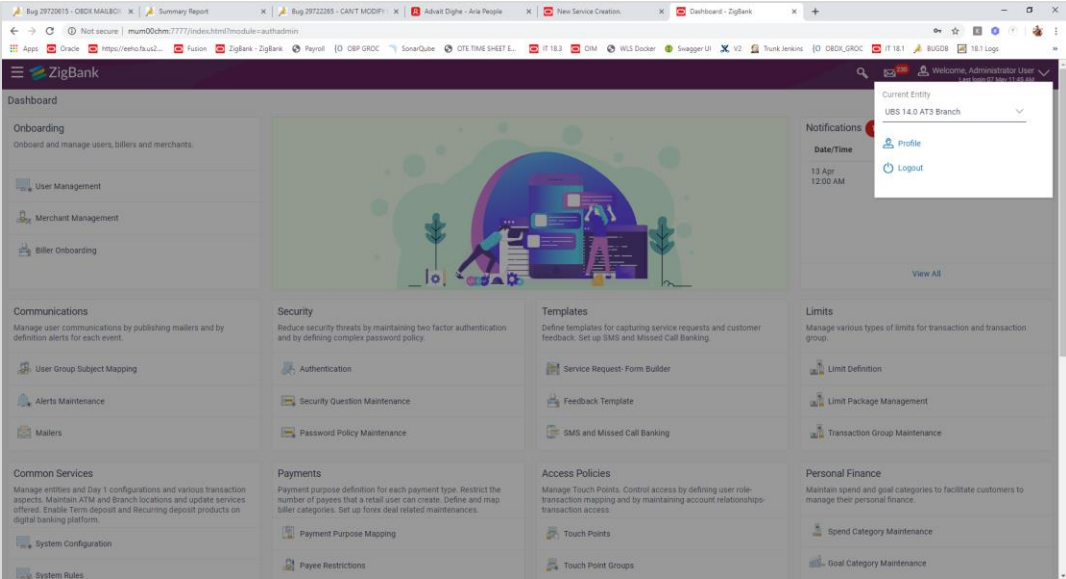


## 7.2 Business User

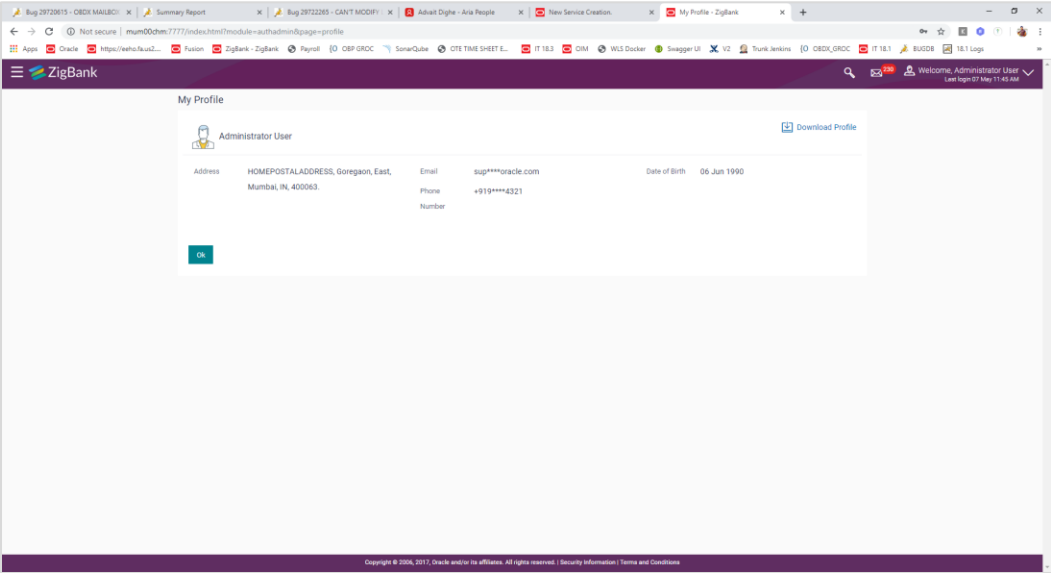
1. Login as Business User (Retail/Corporate/Admin)



2. Clicked on "Profile"



3. Clicked on "Download Profile"



[Home](#)

## 8. Third Party Consents

This option enables the user to manage the access provided to third party application(s). The user can define the fine-grained entitlements i.e. account level access along with a set of transactions for the third party. The user can disable the access for a specific third party application whenever required.

Note: Only those third party applications for which the user has registered and given rights to access his/her accounts for inquiries and transactions, will appear on this page.

### How to reach here:

*Dashboard > Toggle Menu > Account Settings > My Preferences > Third Party Application OR*

*Dashboard > My Profile > Profile > Third Party Application*

### Third Party Apps

The screenshot displays the 'Third Party Consents' page in the ZigBank interface. The page is titled 'Third Party Consents' and features a sidebar with navigation options: Profile, Primary Account Num..., Alerts/Notifications, Third Party Apps (selected), Security and Login, and Settings. The main content area shows the 'Application Access' for 'epay' with a toggle set to 'Granted'. Below this, there are tabs for 'Current & Savings', 'Term Deposits', and 'Loans'. A list of accounts is shown, with the first one selected. A large grid of checkboxes allows users to grant or deny various permissions for the selected account, such as 'Map All Transactions', 'CASA Inquiries', 'Sweep-In Instruction', 'Loans', 'CASA', 'Term Deposits - Financial', and 'All Inquiry Transactions'. At the bottom, there are 'Edit' and 'Cancel' buttons.

**Field Description**

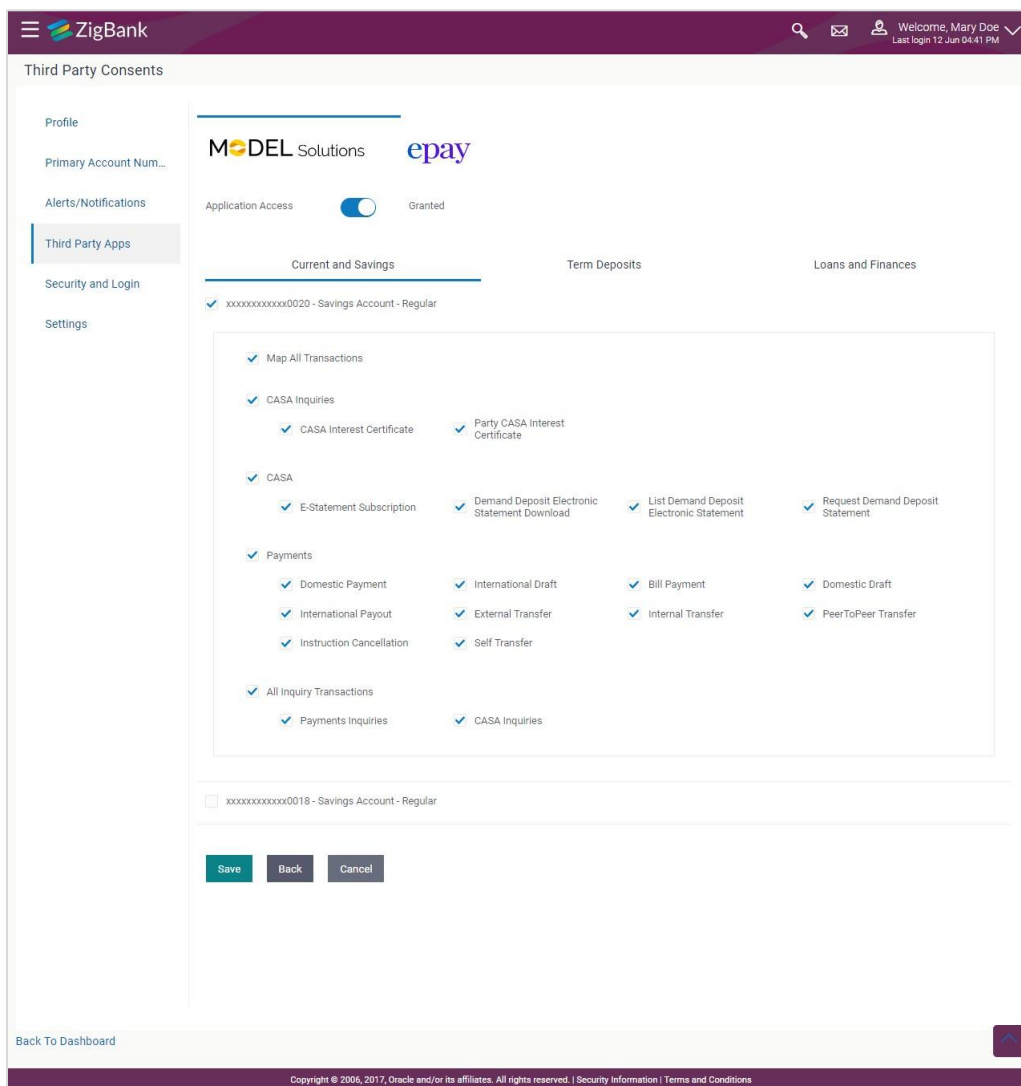
<b>Field Name</b>	<b>Description</b>
<b>Third Party Application Name</b>	The names of the third party applications are displayed. Select a third party application to define access to the application.

<b>Field Name</b>	<b>Description</b>
<b>Application Access</b>	The option to define whether access for the application is to be provided or not. If access is granted, then the user can revoke access and if it was revoked, then the user can grant access whenever required.
<b>Current and Savings/ Term Deposits/ Loans and Finances</b>	Select a product to define account and transaction level access to the third party.

1. Select the third party application for which you wish to define fine grained access.
2. The system will display the list of accounts under each of the account types along with the transactions
3. Click **Edit** to modify account and transaction access. The **Third Party Consents – Edit**
4. The screen with values in editable form appears.  
OR  
Click **Cancel** to cancel the operation and to navigate back to the Dashboard.  
OR  
Click **Back to Dashboard** to go to the Dashboard.



### Third Party Apps – Edit



### Field Description

Field Name	Description
<b>Third Party Application Name</b>	The names of the third party applications are displayed. Select a third party application to define access to accounts and transactions.
<b>Application Access</b>	The option to define whether access for the application is to be provided or not.

Field Name	Description
------------	-------------

---

<b>Current and Savings/ Term Deposits/ Loans and Finances</b>	Select a product to define account level access to the third party.
<b>Accounts</b>	All the accounts of the user are displayed under the respective account type.
<b>Transactions</b>	Once you select an account, all the transactions through which the account can be accessed are displayed. Select any or all transactions to provide account access for the transactions to the third party application.

---

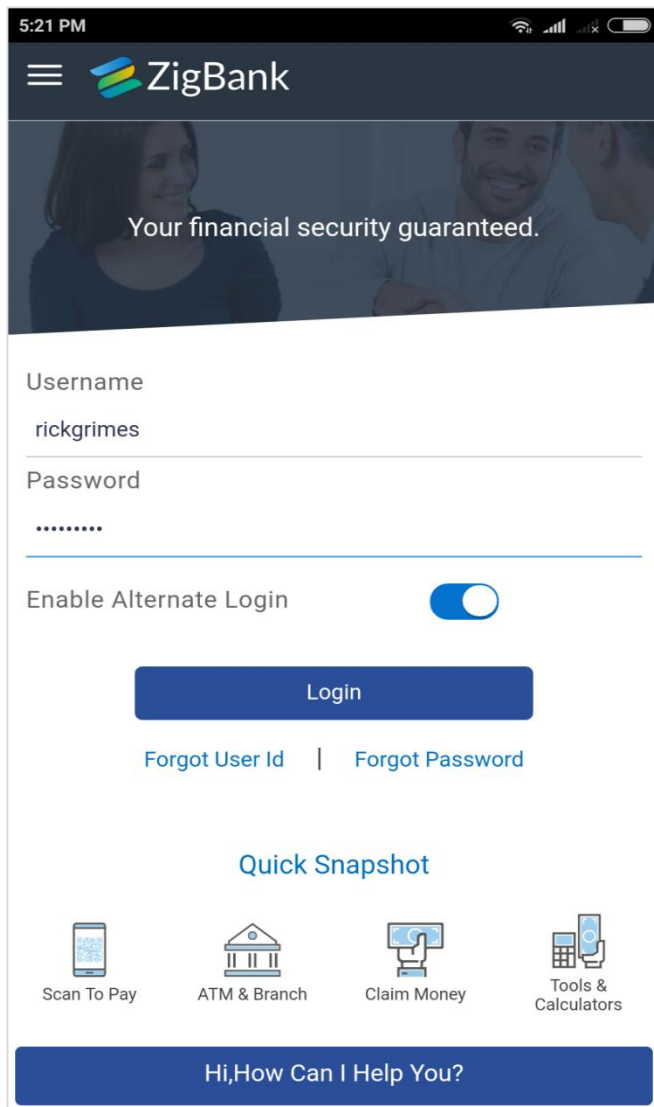
1. Click the **Application Access** button to enable / disable access for the third party application.
  - a. If you select **Enable**,
    - i. Click an account type.  
The account check boxes are enabled and you can select/deselect any check box to edit access of these accounts to the third party application
    - ii. Select an account check box. The transactions for which the selected account can be accessed appear.
    - iii. Select/Deselect all or any of the transaction checkboxes to define the transactions through which the selected account can be accessed.
2. Click **Save** to save the changes.  
OR  
Click **Back** to go back to previous screen.  
OR  
Click **Cancel** to cancel the operation and navigate back to 'Dashboard'.
3. The **Third Party Consents – Review** screen appears. Verify the details, and click Confirm.  
OR  
Click **Back** to go back to the previous screen.  
OR  
Click **Cancel** to cancel the operation and navigate back to Dashboard.
4. The success message of third party consent setup appears along with the transaction reference number.
5. Click **OK** to complete the transaction and to navigate back to the Dashboard.

[Home](#)

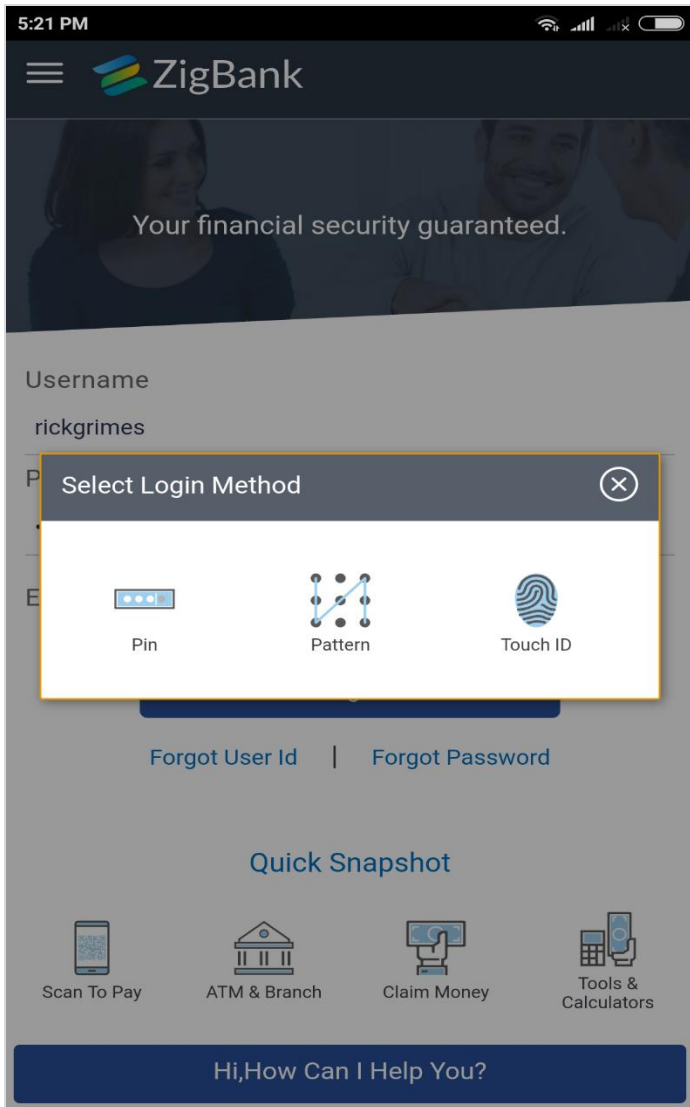
## 9. Device ID Consents

OBDX framework provides a facility to enables the alternate login via Pin, pattern or touch ID.

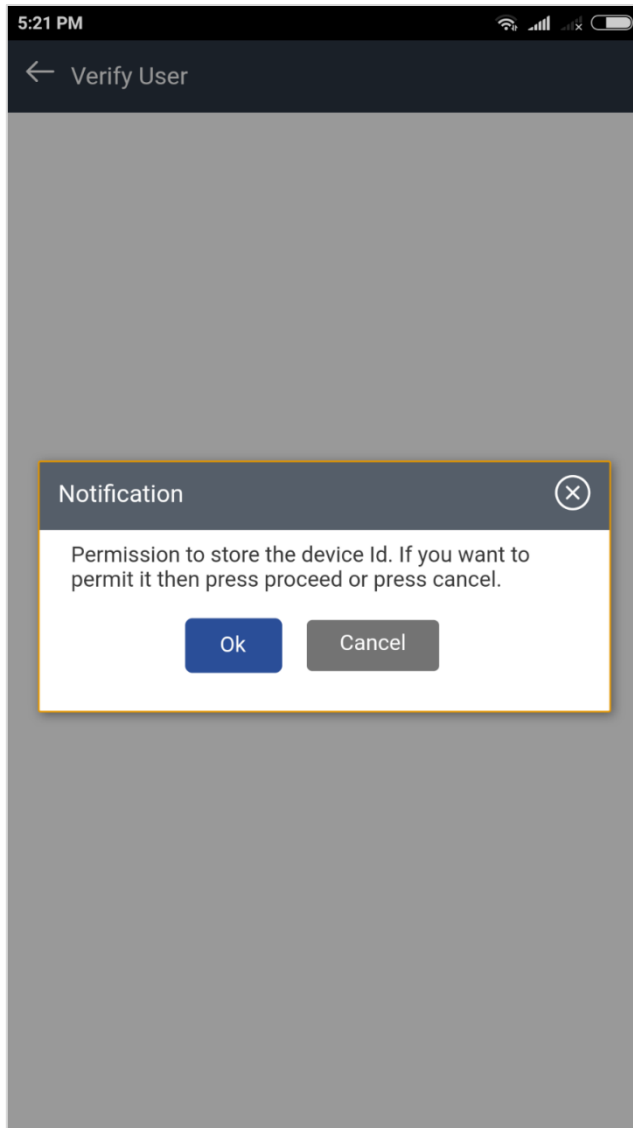
1. On the login page, user will get the “Enable Alternate login” functionality. User needs to enable this for alternate login as pin, pattern or touch ID.



2. Once user enables the functionality then, "Select Login Method" pop up will come from which user can select the alternate login method.

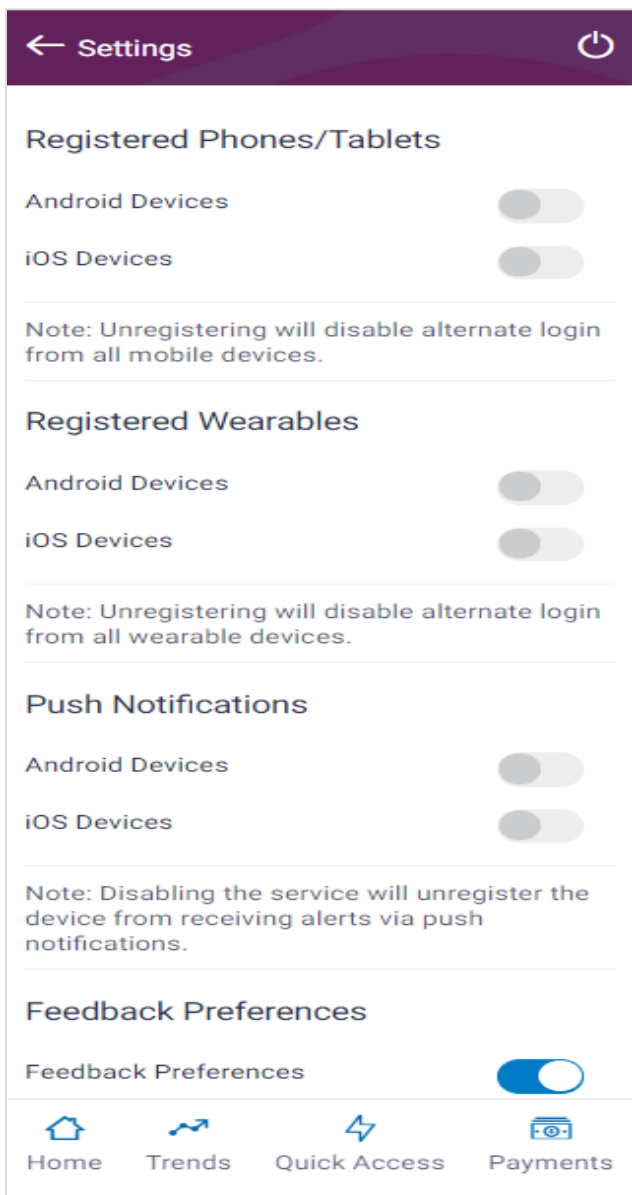


3. Once user will select the appropriate option, Notification of permission to store the device id message will display before setting up the alternate login method.



### Unregister the Device ID

In the Settings page, user can disable the alternate login from all mobile devices.



[Home](#)