



D&A ModerAD Initiative



Illustrative Business Cases

Accounts, Balances & Payments

- ❖ **The Payment Services Directive is an EU Directive**
- ❖ **Administered by the European Commission**
- ❖ **To regulate payment services and payment service providers**

“Illustrate Account information, Balance and Transaction history for a customer using APIGEE PSD2 implementation”

Account information

Retail Consumer Point of View – Customer Account Aggregation Dashboard

As a multi banked consumer, I want to see a consolidated view of my accounts and spending patterns so that I can understand what I spend on and where I could look for savings opportunities.

As an account aggregation tool provider, I want to be able to access the customers’ transactional history from all their banks so that I can provide an aggregated dashboard of the overall spending

“Illustrate payments for online shopping and staff purchase on behalf of employer
Leveraging APIGEE PSD2 implementation”

Payment Initiation – Online Purchase

Retail Consumer Point of View – Online Purchase from a Retailer

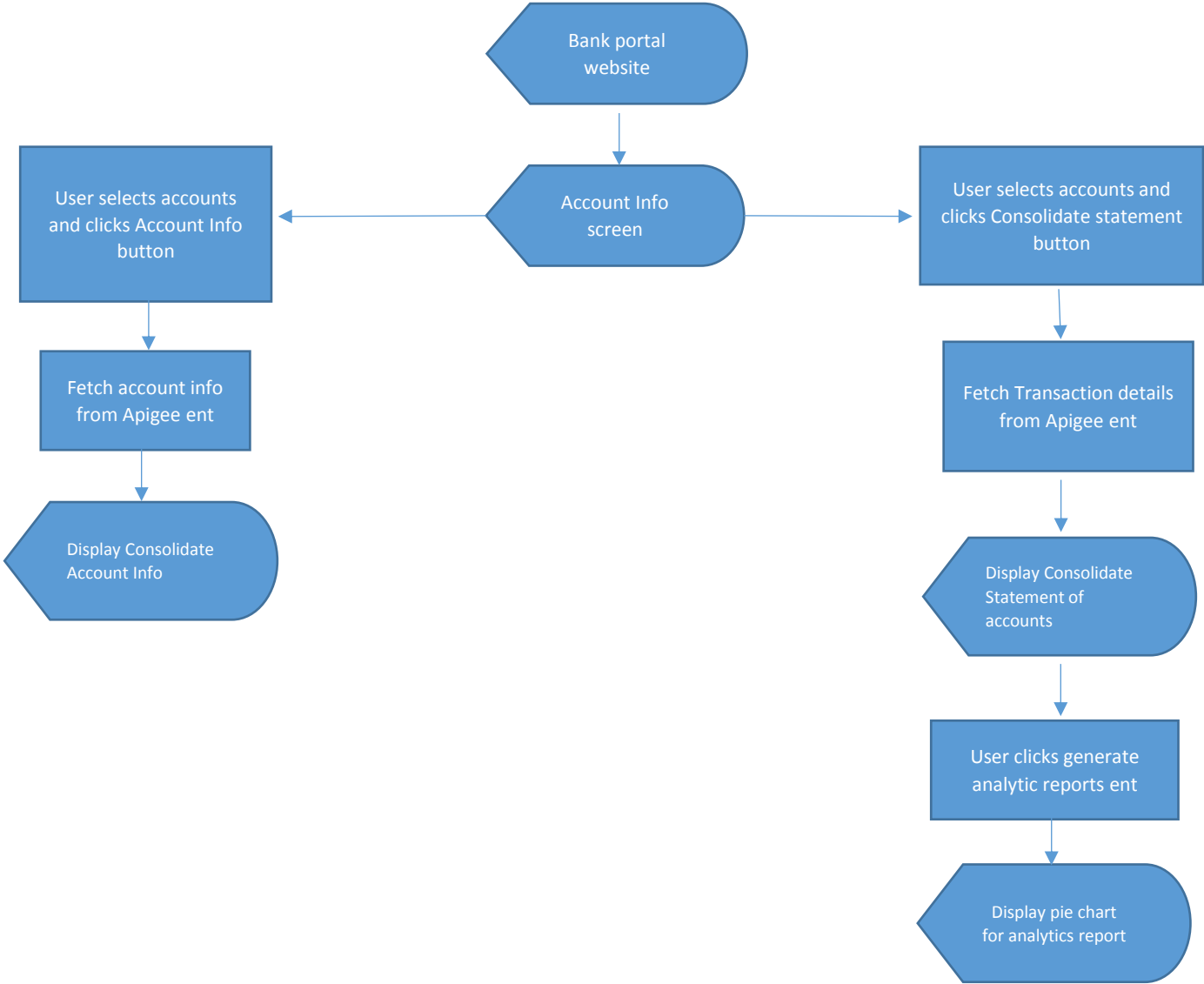
As a customer, I want to pay for goods that I buy from a retailer using my bank account, and see the balance on my account before confirming the payment, so that I can be aware whether I will be overdrawn after making the payment.

Retail Merchant Point of View

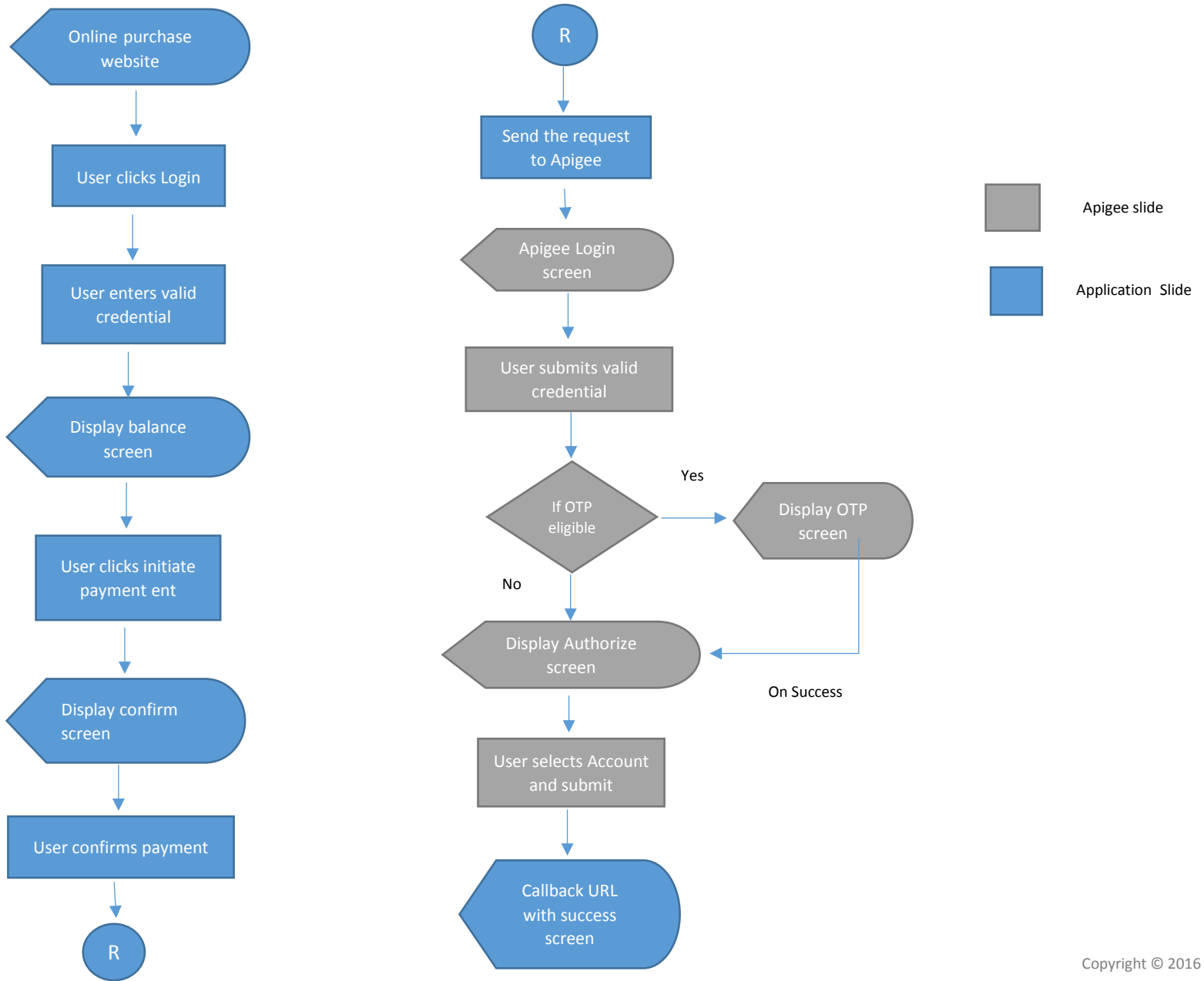
As a retailer, I want to create a payment transfer from the customer’s account to mine, so that I can be sure of the payment before fulfilment of their purchase.

Business Point of View – Employer

As a business, I want my staff to be able to purchase goods online, but within my control and without them having full access to the account, so that I can be confident that misuse cannot happen and the confidentiality of the account is maintained.



PSD2 Usage – PISP Flow diagram (Retail Consumer Purchase)



PSD2 PAYMENT BANKING

Retail Consumer Accounts

Linked Accounts for Customer Id : **62936395**

Account Number	17109552631	17109552632
Bank Name	Cash Bank	Town Bank
Customer Name	Robert Brown	Robert Brown
Currency	EURO	EURO
Account Type	Main Account	Main Account

Select Account Number	<input checked="" type="checkbox"/> 17109552631 (Cash Bank)	<input type="checkbox"/> 17109552632 (Town Bank)
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- [Account Information](#)
- [Consolidate Statement](#)

PSD2 PAYMENT BANKING

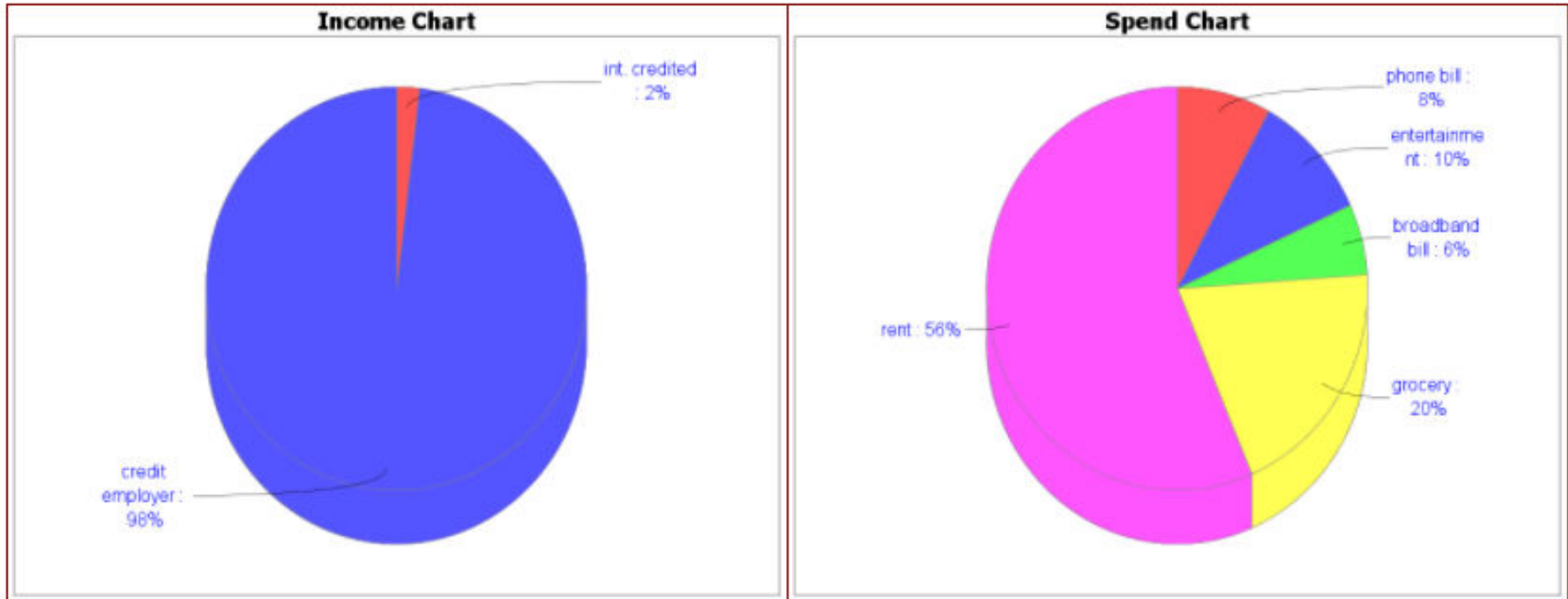
Account Transaction Details

Transaction Date	Bank Name	Account Number	Remarks	Amount
2017/05/16	Cash Bank	17109552631	Int. Credited	101
2017/06/13	Town Bank	17109552632	Movie Ticket	-45
2017/06/14	Town Bank	17109552632	Phone Bill	-85
2017/06/14	Town Bank	17109552632	Credit Employer	5000
2017/06/16	Cash Bank	17109552631	Broadband Bill	-60
2017/06/16	Cash Bank	17109552631	Rent	-600
2017/06/29	Cash Bank	17109552631	Grocery	-210
2017/06/29	Cash Bank	17109552631	Restaurant Bill	-64

Generate Analytics Report

PSD2 PAYMENT BANKING

Analytics Report



SAMANTHA  OGILVIE

You have chosen a purchase for the amount **95 €** towards a purchase

Customer Name	John Doe
Account Number	2139531801
Bank Name	BANK OF SCOTLAND
Balance	1200€

Initiate Payment

SAMANTHA  OGILVIE

You have initiated a transaction for **95€** towards a purchase

Customer Name	John Doe
Source Account	2139531801
Settlement A/C	Samantha Ogilvie
Transaction Amount	95€
Transaction Date	2017/07/28
Remarks	Dress Purchase

[Confirm Payment](#) [Cancel Transaction](#)



Access authorization

Application **PISP_App** is requesting your permission to share the following details

Please select an account

I agree to transfer **EUR 95** to account number:
07770000002

By clicking **Allow**, you allow this TPP / Bank to use your information in accordance with their respective terms of service and privacy policies

SAMANTHA  OGILVIE

The Retail Consumer Transaction has been completed successfully.

Customer Name	John Doe
Bank Name	BANK OF SCOTLAND
Transaction Amount	95.0€
Date Of Transaction	2017/07/28
Transaction Reference Number	f9f864f8-7351-11e7-b8f2-0eec2415f3df
Remarks	Online Purchase

Apps Used:-

- PISP_App : Payment Initiation Service Providers Application
- AISP_App : Account Information Service Providers Application

Proxies Used:-

- OAuth : Uses the access token to access the protected resources hosted by the resource server
- Transfers : Deals with payment transfer
- Accounts : Deals with Account Information for a specific customer
- Transactions : Deals with transaction history for the linked accounts for a customer

Pre-conditions:-

- ✓ AISP and PISP applications should be deployed in developer portal for the consumer application
- ✓ The consumer should have an active Consumer key and secret code

Request:-

- ✓ Request should be encoded with JSON web token and HS256 algorithm
- ✓ Should be authorized with secret code

Response:-

- ✓ APIGEE keeps the customer and account related data in JSON format
- ✓ Whenever requested APIGEE response back to the consumer with JSON data
- ✓ Consumer application can make use of the JSON data and populate those in UI for end user.

WSO2

MuleSoft

- OTP Sync up for mobile devices
- BaaS to On Premises Data Sync up.
- APIGEE API does not send messages to the non European mobile number.
- BaaS data update through developer's application

- The web application should be able to communicate APIGEE EDGE
- The changes done in APIGEE BaaS will be reflected immediately
- APIGEE API will send the final response to the defined URL