L'ISAE, le CNAM au Liban

CNAM Accounting

Business Requirements Document (BRD)

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1. Introduction

1.1. Document Purpose

The purpose of this document is to describe business requirements is to define very basic accounting system that filter the dispenses by category allowing the user to enter income,expenses and the deference will be based on category .The terminology and business language while describing the requirements in this document are very minimal and commonly understood Technical terminology is used. **Use case** is used in modeling the business requirements in this document.

1.2. Intended Audience

The main intended audience for this document are the business and application owners of the proposed system. This document should be readable by business owners CNAM Liban Pascal Fares administrator of the information department and the students. They must be able to verify that their business requirements have been documented here completely, accurately and unambiguously.

Data Architects, Application Architects and Technical Analyst will also used the information in this document in order to design a solution that will address these business requirements.

Since the requirements are documented here in Technology-independent manner, the end-users of the system should be able to comprehend the requirements fairly easily from this document.

1.3. Project Background

This document is the result of many meetings and emails between us and Mr Pascal Fares he is the ‘‘**Title of Mr pascahere** and the Studants Kamal Mokh And Ahmad Chaaban to develop a web based using google appengine and android small application

1.4. Benefits/Rationale

This section describes the major benefits to be achieved with the implementation of the Business Requirements.

- To have an online web application use datastore of google app engine as a repository for data and from every where the ability to access the site for any body
- To have android application offline / online mode

1.5. Stakeholders

The following stakeholders have a vested interest in this project and their interests are considered throughout the project; and for whom this Business requirement is documented.

1- Application owner (Students)
2- Pascal Fares
3- Any user

1.6. Dependencies on existing systems

This section describes the minimum requirement

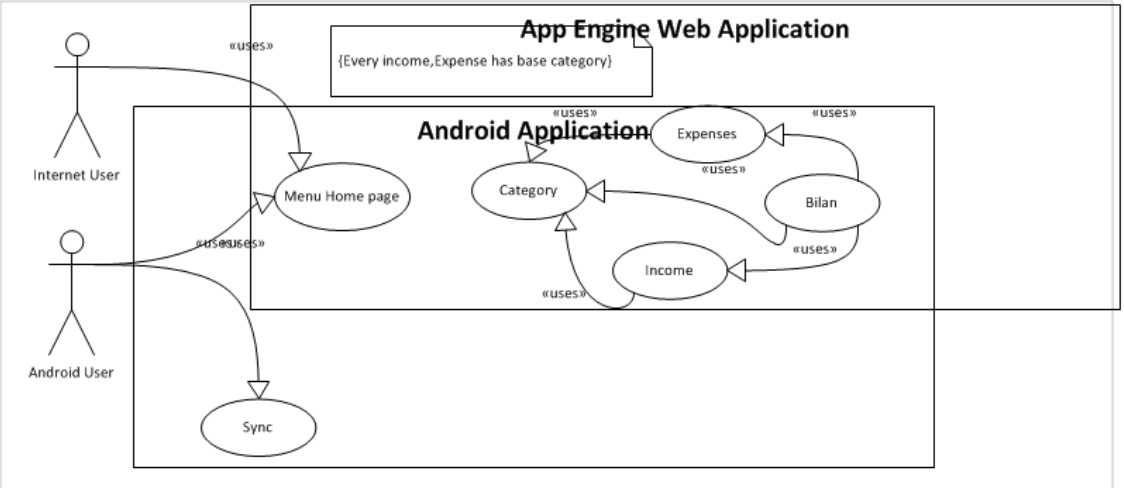
1- Google App engine
2- Chrome Internet Explorer

3- Android Phone

2. Requirements Scope

This section shows what business functionality is in scope and out of scope for Implementation, the out of scope Use cases are indicated in a separate boundary box.

2.1. In Scope



3. Functional Requirements

This section describes the *Functional requirements* part of the Business Requirements. The *Functional Requirements* comprises of Actor Profile Specification, Essential Use case diagram and Essential Use case specification in narrative text form.

3.1. Essential Use Case Diagram

This section depicts the Business Requirements in the form of Essential Use case diagram. In the Use case approach, the Functional Requirements are decomposed into a number of Essential Use cases. Essential use cases are of primary importance early in a project's requirements/analysis phase. Their purpose is to document the business process that the Application must support without bias to technology and implementation.

3.2. Essential Use Case Specifications

This section describes each Essential Use case in narrative text form. A use case typically has one basic course of action and one or more alternate courses of actions. The basic course of action is the main start-to-finish path that the use case will follow, where as the alternate courses represent the infrequently used paths and exceptions, error conditions etc. The complete business logic of a use case such as basic course of action, alternate course of action, pre-condition, post-condition etc is not depicted in the Use case diagram. Rather they are documented in narrative style in use case specifications.

Use Case Id: 1-1 - Menu

Use Case Name	Menu
Description	- The menu displays List of Screen available in this application Category,income,expenses,bilan
Interface	- The corresponding screen in the user interface document is the “Menu” Navagation in html5 are list view in android
Actors	- Any User
Business Rules	Not applicable
Basic Flow	- The menu is the first to appear after connecting to the application Category, income, expenses, bilan
Alternate Flows	
Non-Functional Requirements	- - Response time depend on internet connection speed and google appengine response time
Pre-Conditions	- Any user can access Application.
Post-Conditions	Menu displayed with all sub items

Use Case Id: 1-2 - Category

Use Case Name	Category
Description	The category screen allow the user CRUD operation for entering category record which will be the parent of expense and Income and couldn’t be deleted if there is still child
Interface	The category menu item will be under the menu
Actors	- Any User
Business Rules	Not applicable

Basic Flow	•Data Entry (add new) :User click on category , open Data Entry form category , enter category name , description and save •Search for Category : list all category match the filter criteria •Edit, Delete Category : select the category edit or delete •Edit only allow the description as the name will be the key of join the expenses and the income •Delete is not allowed if there is related income or expense joind to the current category.
Non-Functional Requirements	- - Response time depend on internet connection speed and google appengine response time
Pre-Conditions	- Any user can access online - Offline Android.
Post-Conditions	Category: Added ,Edited , and Deleted

Use Case Id: 1-3 - Expense

Use Case Name	Expense
Description	The expense screen allow the user CRUD operation for entering expense record.
Interface	The expense menu item will be under the menu
Actors	- Any User
Business Rules	Not applicable
Basic Flow	•Data Entry (add new) :User click on expense, open Data Entry form expense, enter expense name , description, expense date, category and save •Search for Expense: list all expense match the filter criteria •Edit, Delete Expense: select the expense edit or delete •Edit allow without the key of the expense •Delete any expense.
Non-Functional Requirements	- - Response time depend on internet connection speed and google app engine response time
Pre-Conditions	- Any user can access online - Offline Android.
Post-Conditions	Expense: Added ,Edited , and Deleted

Use Case Id: 1-4 - Income

Use Case Name	Income
Description	The income screen allow the user CRUD operation for entering income record.
Interface	The income menu item will be under the menu
Actors	- Any User
Business Rules	Not applicable
Basic Flow	•Data Entry (add new) :User click on income, open Data Entry form income, enter income name , description, payer. payment type, income date, category and save •Search for Income: list all income match the filter criteria •Edit, Delete Income: select the income edit or delete •Edit allow without the key of the income •Delete any income.
Non-Functional Requirements	- - Response time depend on internet connection speed and google app engine response time
Pre-Conditions	- Any user can access online - Offline Android.
Post-Conditions	Income: Added ,Edited , and Deleted

Use Case Id: 1-5 - Bilan

Use Case Name	Bilan
Description	The bilan screen allow the user to show different incomes, expenses and their balance filtered by a category.
Interface	The bilan menu item will be under the menu
Actors	- Any User
Business Rules	Not applicable
Basic Flow	•User choose a category and make a filter •The process display all incomes and expenses related to the category choosed with their calculated balance(sum(incomes)-sum(expenses)).

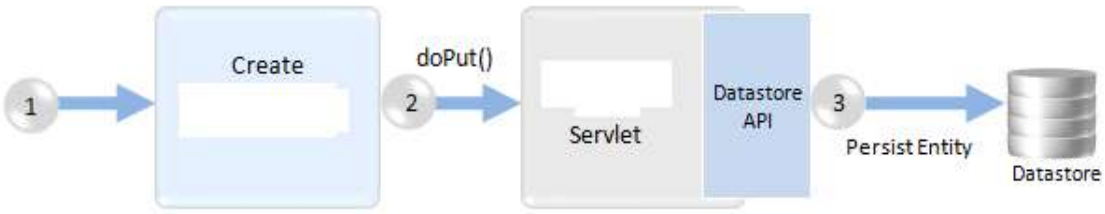
Non-Functional Requirements	- - Response time depend on internet connection speed and google app engine response time
Pre-Conditions	- Any user can access online - Offline Android.
Post-Conditions	Balance displayed for a specific category related to the expenses and incomes.

Use Case Id: 1-5 – Sync(only Android)

Use Case Name	Sync
Description	The process sync make a synchronization between offline mode and the online datastore..
Interface	The sync screen will be accessed by a menu button from the menu screen.
Actors	- Any User
Business Rules	Not applicable
Basic Flow	•User press the button syunc to do the synchronixation process
Non-Functional Requirements	- - Response time depend on internet connection speed and google app engine response time
Pre-Conditions	- If a category added ,the user obligatory should be do a sync before complete in offline mode. - Internet connection is required.
Post-Conditions	Synchronization complete between offline and online database.

3.3. Workflow Activity Diagram

Create



List view

3.4. Workflow Groups

Not Applicable

4. Data Requirements

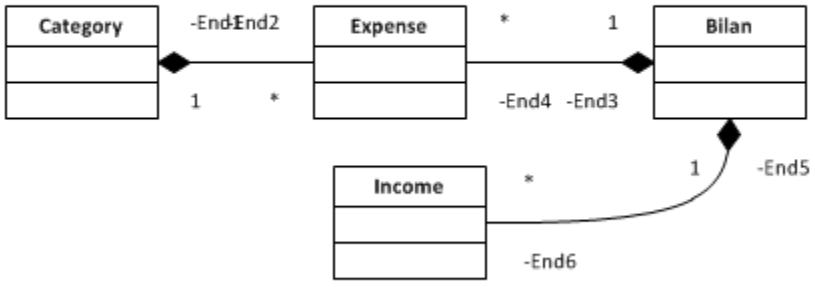
This section describes the Data requirements part of the Business Requirements.

4.1. Data Architecture

This section describes the Data Architectural requirements part of the Business Requirements.

4.1.1. Domain Class Diagram

This section depicts the Data Architecture in the form of Domain Class Diagram. In the Use case approach, the conceptual data architecture (structural aspects) for the Business Requirements is modeled using Domain Class Diagram. The Domain Class Diagram is used to model the conceptual classes, its attributes (fields) and operations (methods) and also the interrelationships (association, composition, aggregation and generalization) between the classes. Domain model is a representation of real world conceptual classes, not of software components.



Data Volumes

This section describes the expected approximate Data volumes (initial volume and annual growth %) for each conceptual Class or Entity.

4.2. Data Conversion

This section describes the high-level Data Conversion Requirements needed for this document.

> The conversion of data between the Google app engine data store and the SQLite database record is being processed internally within the application.

5. Non-Functional requirements

This section describes the non-functional requirements part of the Business Requirements. A non-functional requirement is typically a special requirement that is not easily or naturally specified in the text of the use case's or function's event flow. Examples of non-functional requirements include legal and regulatory requirements, application standards, and quality attributes of the system to be built including usability, reliability, performance or supportability requirements.

5.1. Security Requirements

Everyone can view it on internet and download app from internet

5.2. Availability Requirements

The system should be available 24 hours over 7 days.

Revision Log

Date	*Version*	*Change Reference*	*Reviewed by*
28-09-2013	1.0.0	Initial version	Kamal Mokh ,Ahmad Chaaban