Functional analysis V4

Summary

Phase 1 – Basic functionality

User & Password Management (F1)

The following functions must be provided:
- *Adding or Deleting Users*
- *Password Setting and Change*
- *Add or edit in a group*

Generic on all Reports (F1)

For readability reasons, the following guidelines should be applied in general for any report that shows data from multiple schools and/or classes. See example payment delay report.

An order must be respected in the writing of the various elements which is reflected in the summary sections

1) First, the Schools are ordered in the following order:
- *a) our Kindergarten*
- *b) Our Primary*
- *c) Other Schools*
  - *i) Kindergarten -> Primary -> Secondary -> High Schools*

2) Then, within the School, the classes are summarized in this order
- *a) PS -> MS -> GS*

b) CP1 -> CP2 -> CE1 -> CE2 -> CM1 -> CM2

c) 6m-> 5m-> 4m-> 3mE

d) 2me -> 1er ->Term

User interface (F1)

All lists that are managed by SICS must have the following functionalities and characteristics:

- *They must optimize the available space by minimizing operator scrolls*
- *They must allow sorting by at least one column (preferably more than one at the same time) with ascending and descending order*
- *Data must be exportable to CSV or excel*
- *Buttons must be allowed to be inserted into the row*
- *Instant search on every field*

To achieve these features without developing code from scratch, you plan to use libraries such as "datatables".
See https://datatables.net/ or examples already made https://datatables.net/examples/index

Types of Frais and deadlines (F1)

The data associated with a class in a given school year are:

- *Type (Inscription, 1st SCO, 2nd SCO, 3rd SCO, Uniform, Cellars)*
- *amount*
- *Expiration date; the date by which the frais must be paid*

In SICS on File Maker they were fields stored inside the "class" table, but they can be written to a specific relationship that only has the 3 fields above.

For example, in the 23-24 school year for class CP1 these are the data:

INS	500 F	23/09/23
1st SCO	10,000 F	23/09/23
CAN	4,000 F	23/09/23

2nd SCO	8,000 F	30/11/23
3rd SCO	7,000 F	31/12/23
TEN	2,000 F	*When ordering*

Management of school uniforms (F1)

The political choice of the Nasara is that each of our students has a uniform. This is a fairly common choice in Burkina, but above all it is important in ours, where we welcome many CS who often have clothes that could represent differences in the economic class of families.

The uniforms have a purchase cost that does not necessarily correspond to the reimbursement requested from families (usually minor) at the beginning of the school year.

Normally there are 2 uniforms for each school year, but in the years following the first (PS) you ask how many uniforms you need because those of the previous year can still be used.

The uniforms of the CS are paid for by the association, the uniforms of PY are booked at the beginning of the year and are paid on delivery.

SICS must manage:

- *the reservation of currencies by dividing between PY and CS*
- *Must make the necessary reports*
    - o *To the tailor for reservations*
    - o *to Alix for collections frais*
    - o *to Yves for payments*

Cash management (F1)

At the Social Center we have two cash desks:

- SCO cashier, (hereinafter C_SCO) which is used to manage the movements created directly by the secretariat (Alix)
- BF cashier, (hereinafter C_BF) is the general cash that is managed by Yves

At this stage of development, we will only manage the movements of the C_SCO in SICS.

C_SCO has both economic and patrimonial movements:

- Economic Movements
    o Entrance fees for school friars (INS, SCO, TEN, CAN)
    o Expenses for all the small daily expenses that Alix makes directly
- Asset movements
    o Money comes out of the C_SCO towards C_BF, when there is too much money in C_SCO I look back at the forecast of daily expenses (e.g. October-March period)
    o From C_BF money comes in on C_SCO, when the balance on C_SCO is lower than the expenditure forecasts in the medium term and therefore Yves withdraws money from the bank to give it to Alix who manages it on a daily basis (for example April-September)

Management of cash inflows and outflows other than Frais (F1)

In relation to the above explanation, all types of income and expenses from C_SCO must be provided

Cash Flow Report (F1)

You need a report to C_SCO in two forms:

- Extended, which shows all the transactions as they were generated, divided into 3 columns (Income, Expenses and Progressive Balance)
- For accounting, where
    o Outputs are carried over unchanged

    ○ *Income is grouped by type and period (e.g. weekly or from the 1st to the 15th and from the 16th to the end of the month). When exporting, the calculated sums are assigned the date of the start of the period (e.g. start of the week or 1 and 16 of the month)*

SICS Function

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Export for accounting (F1)

An export to excel (or CSV) of the two above reports must be envisaged.

Off-site student management (F1)

The association runs school support for students who are Social Cases (CS) and ranging from Kindergarten to

BAC. That's a total of 16 years:

- *3 years at the Kindergarten (PS, MS, GS), inside the Center*
- *6 years at the Primary School (CP1, CP2, CE1, CE2, CM1, CM2), inside the Centre*
- *4 years at High School (6me, 5me, 4me, 3me), Schools outside the Centre*
- *3 years at High School or Specialization (2me, 1er, Term), Schools Outside the Center*

School supports can be managed directly by:

- *Djicofè Social Center*
    ○ *on Internal Schools*
    ○ *External Schools that we don't cover*
- *third-party intermediaries who are based outside the Social Center and who manage schools of all kinds throughout the BF (e.g. Father Amendola of the Camillians)*
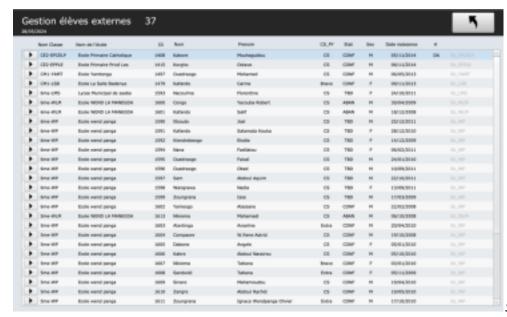
In the medium term, SICS has to handle all these cases.

List of Off-site Students (F1)

A button must be inserted on the Home page that allows all off-site students to reporting. It is used by the Manager to:

- *Getting to the student card*
- *plan meetings with the principals of other schools*

- Manage FRAIS payments on due dates

- Retrieving Report Cards

Directly managed students (F1)

In FileMaker-managed SICS, there were two tables:

- *Schools*
    - o *PK_Scuola*
    - o *School Name*
    - o *Acronym School*
    - o *Type of school (Maternelle, Primaire, Secondaire, Liceo)*
    - o *School Notes*

- *Class (16 types from PS to Term)*
    - o *PK_classe*
    - o *Class Name*
    - o *FK_Scuola*

NOTE: fictitious TBD School had been inserted on SICS, which is used in cases where there is no news of the School and you still want to include a student in a certain class.

It is also used to manage the exits from the CM2 that go in 6me, but we still don't know in which school they will be enrolled.

Adding a School

List of registered schools

By clicking on the icon on the left you go to the details of the School that we see below.

New Student (F1)

When you enter a new student, you must choose School and Class.

Below is a version made on File Maker, but the UI can be optimized by making cascading choices:

1) *Choose your school first*
2) *Then choose the class from the existing ones for that specific School*

Change of School (F1)

In specific cases, a student can change schools.

In these cases, SICS must offer the same class in schools of the same grade.

Class Upgrade (F1)

In specific cases, a student can change classes

> *Phase 2 – Extended functionality 1*

Late payment management (F2)

A report must be provided that, at the date of the request, for each class and each student in the class, makes a calculation of:

- *Paid by type*
- *what the student would have to pay by type*
- *The Difference Between The Two Above*
- *in % ratio between the difference / the total payable; Examples: 100% paid nothing, 0% paid everything. This % is the descending sort order of the report*

Liste générale retards paiements

ID	Nom	Prenom	Sex	CS_PY		SCO	SCO_exigible	Diff.	CAN	CAN_exigible	Diff.	Retards	Note
École Maternelle Centre social de Nasara								**-46 500**			**-8 000**		
	PS							-19 500			-4 000		
1633	Ilboudo	Nis-wendsaida Christ	M	PY	CONF	15 000	25 000	-10 000	4000	4000	0	-34%	
1634	Kabore	Rayane	M	PY	CONF	15 500	25 000	-9 500	4000	4000	0	-33%	
1529	Gouba	Marie	F	PY	CONF	25 000	25 000	0	0	4000	-4 000	-14%	
	MS							-15 000			-4 000		
1549	Kiema	Wend-So Charles le-Bon	M	PY	CONF	10 000	25 000	-15 000	0	4000	-4 000	-68%	
	GS							-12 000			#		
1706	Yaogo	Fadilatou	F	PY	CONF	15 000	25 000	-10 000	4000	4000	0	-34%	
1121	Rouamba	Wend Kouni Emelienne	F	PY	CONF	23 000	25 000	-2 000	4000	4000	0	-7%	
École primaire Centre social de Nasara								**-63 500**			**0**		
	CP1							-500			#		
1197	Sakondou	Daouda	M	PY	CONF	29 500	30 000	-500	0	0	0	-2%	
	CP2							-3 500			#		

The same report must also be printable with page jumping per class, because it must be able to be given to teachers for the reminder of families when they bring students to class.

Print receipts (F2)

For each Frais that is collected by the secretary, a receipt should be printed to be given to the family at the same time as they pay. Possibly in B5 format (half A4)

Teachers' Registry (F2)

In the DB, provide a table of teachers with the main data:

- *Name*
- *Surname*
- *Telephone*
- *Qualifications and specializations*
    - *Multiple associated PDFs (CVs, titles, specializations, ...)*

Class Teachers' Association (F2)

The class must have a link to the teacher who runs the class in that school year.

Note multiple (F2)

Where each table has fields containing notes (e.g. student, classes, payments, ...), these notes must be made multiple and characterized by the following fields:

- *PK-NOTE, Note Primary Key*
- *Date of the note*
- *Note Compiler (Writer)*
- *Note type (private or public)*
- *Text of the note*

To achieve this functionality, a notes table must be introduced whose primary key will be linked to each table that needs multiple notes. In the consultation of the data, the most recent notes will appear with the possibility of scrolling to those with an earlier date.

Data associated with students (F2)

SICS must be the repository not only of the structured data, which are in the DB, but also of the unstructured data that circulates in the School in the form of PDFs, JPGs, ... The same data must be available both in the local network in Djicofè, and in the cloud. The synchronization frequency will be chosen depending on network availability and the synchronization method.

- Quarterly and annual report cards

- Surveys, carried out when first-year CSs (PS or CP1) enter

- Photos for "parrainages"

- …

Phase 3 – Extended Features 2

User group management (F3)

There are at least the following user groups:

- *Secretariat*
- *Teachers*
- *Executives*
- *Supervisors*

Rights Management (F3)

Recording on Records (F3)

On <u>each record in each table</u> it would be advisable to put the following fields that are related to the record itself:

- User who created it
- Creation timestamps
- User Last Modified
- Last modified timestamp

In addition to managing sessions and keeping track of who does/what, they will be used to synchronize DBs in Djicofè with the DB in the cloud

Working Sessions (F3)

It is a specific table, visible only to supervisors, that has at least the following fields:

- Logged-in user
- Login timestamp
- Logout timestamp
- Elapsed time

Class Register (F3)

In a future version of SICS, we must provide that every teacher will have the ability to access SICS from a computer in the teachers' room. The aim is to:

- Enter school data related to students (grades, report cards, notes, ...)
- Enter data on the activities carried out in the classroom (Programs, activities, ...)
- Requests and official communications with the School

Data associated with teachers (F3)

- CV
- Certificates of specializations, courses, ...

Data associated with accounting (F3)

- Cheques for payments made
- Receipts of expenses made
- …

Start of the school year (F3)

In 95% of cases, the opening of a new school year can be automated, saving a lot of work. To start the

procedure, you need a button that can only be activated on specific protections and controls. Let's take a look

at some cases that the automatic procedure at the beginning of the school year must manage:

- Students fail
- *They remain in the same class for the following year as well*

- Students promoted from PS up to class CM1
- *They must be placed in the next class with these specifications*
- *For PY students, the status at the beginning of the year must be PROP because it is an automatic transition that is confirmed at the first payment (PROP->CONF) or you switch to ABAN because you are informed that you abandon your studies or go to another school*
- *For CS, the status is immediately put to CONF and remains so unless you switch to ABAN in case of abandonment*

- Students passed CM2 examen (so they took the CEP)
- *We don't have to deal with PY students anymore*
- *The CS are all enrolled in 6me but the school is TBD (see chapter 6.2) because it will be decided on a case-by-case basis (see procedure chapter 7.2)*