

BTI Millman Custom Software Development Proposal

“Proud Winners of the Kenya ICT Board Grant 2010 in Government Information Portal Category for eMazingira Innovative Solution”

“World Summit Youth Awards 2011”

“East Africa Pivot 25- 2011 Competition Finalist”

“CIO 100 East Africa 2011 Awards”

“Africa Business Awards 2012”

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Non Disclosure Agreement

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Introduction

BTI Millman Company Limited commenced operations in early 2008 and was incorporated in 2010 as an IT Solutions Provider specializing in the provision of web and mobile based software solutions. With vast expertise in these systems, our profile has now broadened to include stand-alone and web-based corporate solutions. Our customized software solutions are targeted at enterprises ranging from IVR systems to ERP systems to POS systems to BULK SMS systems. We give you turnkey solutions for your specific software needs.

Since January, 2012 we have been an accredited member of the Fair Trade Software Foundation based in The Hague, Netherlands. Read more details at <http://ftsfa.eu/>

Our Mission

To consistently provide internationally competitive, low maintenance, robust and highly available customized software solutions that exceed user expectations leading to their ultimate satisfaction.

Our Vision

To be recognized as the leading provider of corporate and government software solutions in the region.

Our Services

BTI Millman Company offers a wide range of services including the below:

- Software development & customization
- Web development and design
- Dedicated help desk
- On-site software advisory and consultation and review services
- Software project management and pre-implementation studies

Our Products

Below is a sample of our products:

- 1) E-Learning Education Platform
- 2) mHealth™ Immunization Application
- 3) Vente™ Point of Sale
- 4) cBase™ Client Management System
- 5) Eneza™ BULK SMS Solution
- 6) eMazingira™ Government Information Portal
- 7) tarakimu™ SMS Voting System
- 8) Kusanya™ SMS Data Collection System
- 9) Interactive Voice Response System at the Office of the President
- 10) Kenya Bureau of Standards KebSMS Solution for Diamond Mark of Quality validation
- 11) SmartDX Hospital EMR with custom android app for data access on the go
- 12) mAssessor Mobile Assessment and Evaluation System
- 13) Ventes Sales Optimization Android Application

E-Learning Platform

We developed a custom e-learning application for a local organization. Basically the e-Learning platform is divided into two major modules:

- The interactive eLearning module
- The e-Library module

The platform requires students to pay for subscriptions through bank or Mpesa and they are automatically assigned a virtual learning course description, content and duration. After their subscription expires, they are logged out to renew it.

The interactive eLearning module

This offered the lecturers and students a virtual classroom environment where they share learning materials, lecturers post assignments and students submit finished assignments.

The figure below shows learning resources of a Chemistry course



Figure 1: Chemistry Course home:

The figure shown above shows the various resources, tools and operations of a course. We are going to explain some of these resources, tools and operations.

Reporting

This highlights the progress of a student and shows the marks and grades achieved by a student. These stats are shown in both tabular and graphical formats. The figure shown below illustrates this.

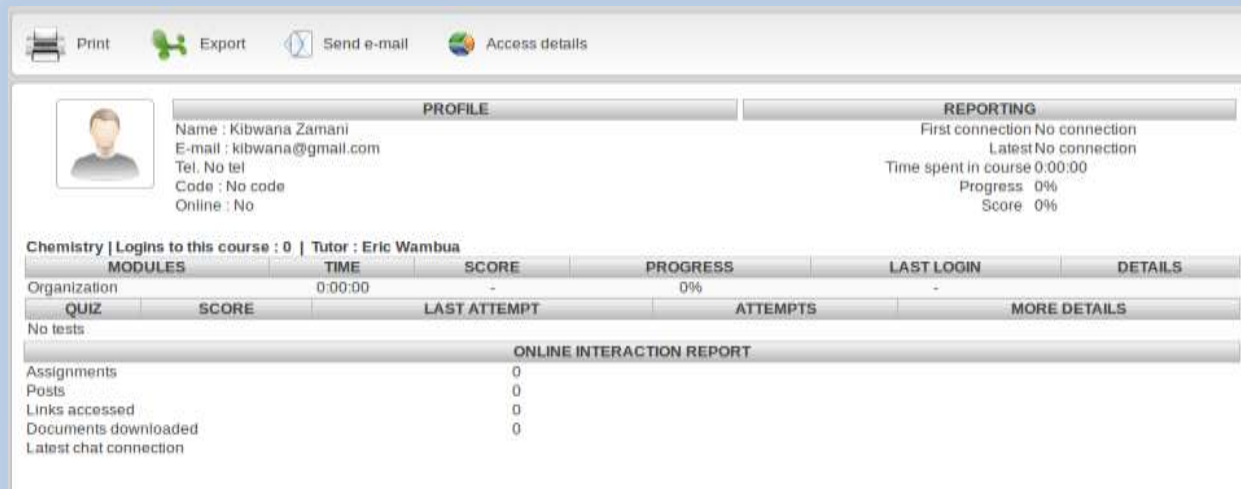


Figure 2: shows a student's report

The figure above shows a summary report of a student based on online interaction with this system

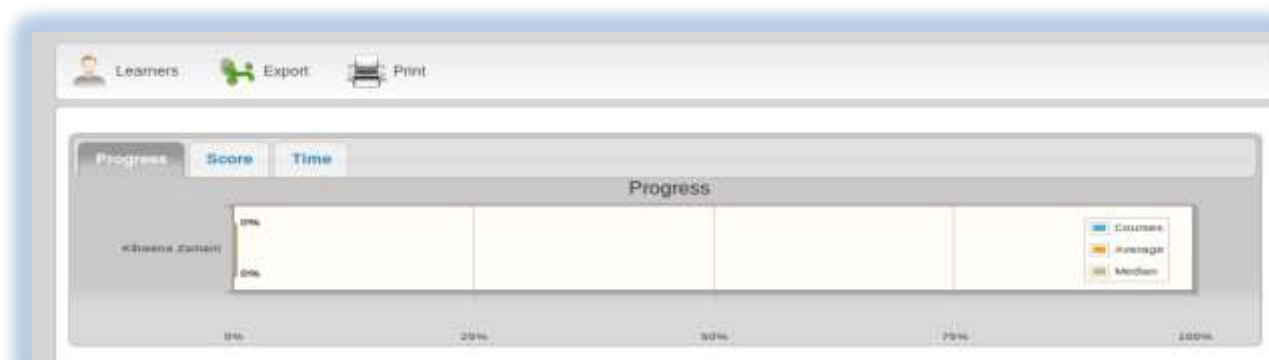


Figure 3: Student's progress

The figure shown above shows academic progress of a student

Media

This sub-module offers media rich academic resources such as video clips, audio clips, photos etc. The figure shown below shows the various media available in the system.

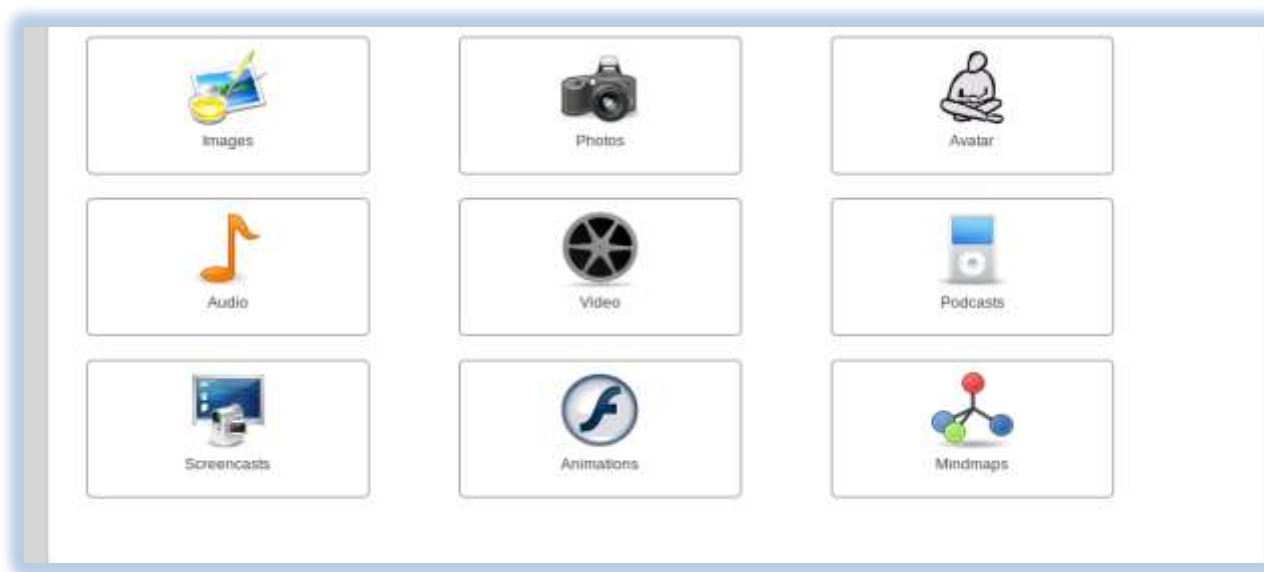


Figure 4: media

Assignment

This sub-module enables a lecturer to create an assignment. All students that are registered to that particular course will see all the created assignments. After completing the assignment, a student can submit his/her work.

The figure shown below illustrates this.

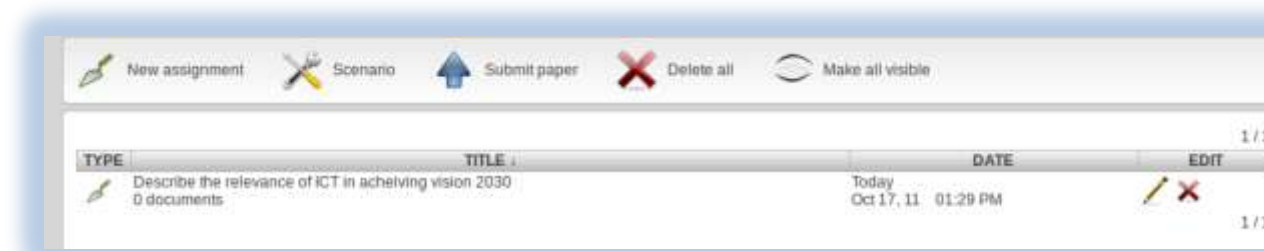


Figure 5: assignment lists

Course glossary

Course glossary is a sub-module that allows the system users to create new terms and their definitions. It is more or less like a dictionary of terms that are specific to that course

The figure shown below shows a screen for adding a new term/glossary

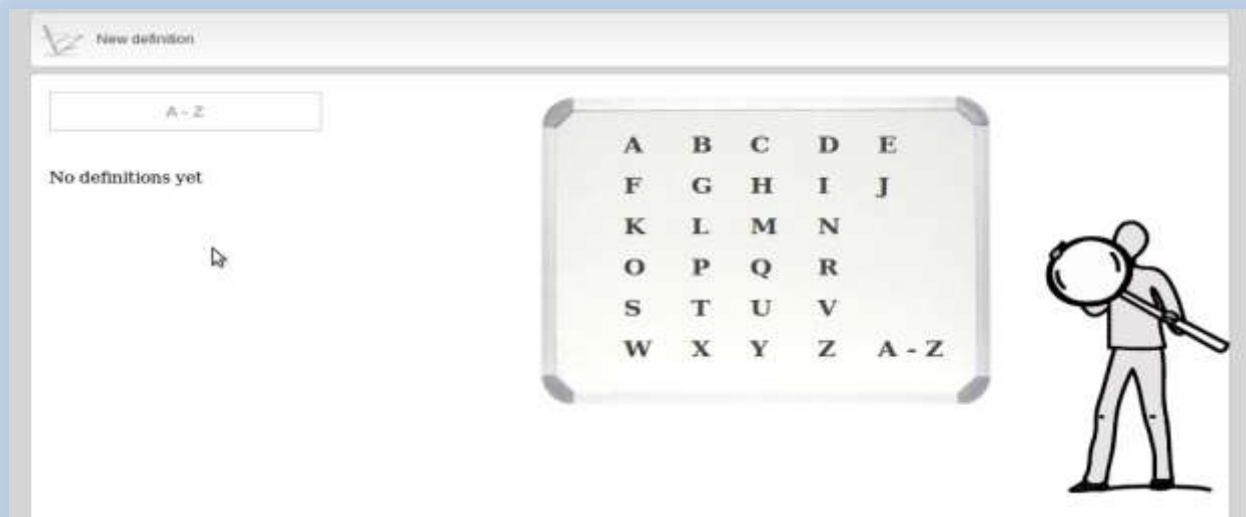


Figure 6: Glossary

Survey

This sub-module aids in creating online surveys. The surveys could have multiple choice questions or open ended questions. The figure shown below illustrates this.

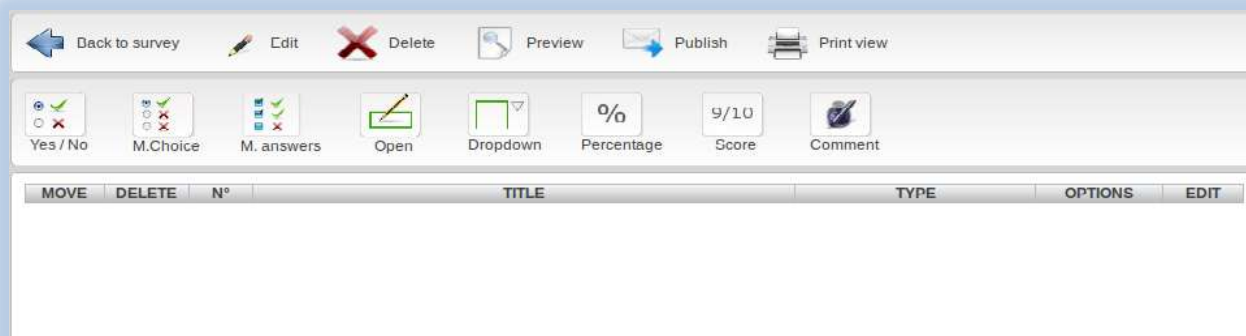


Figure 7: Survey

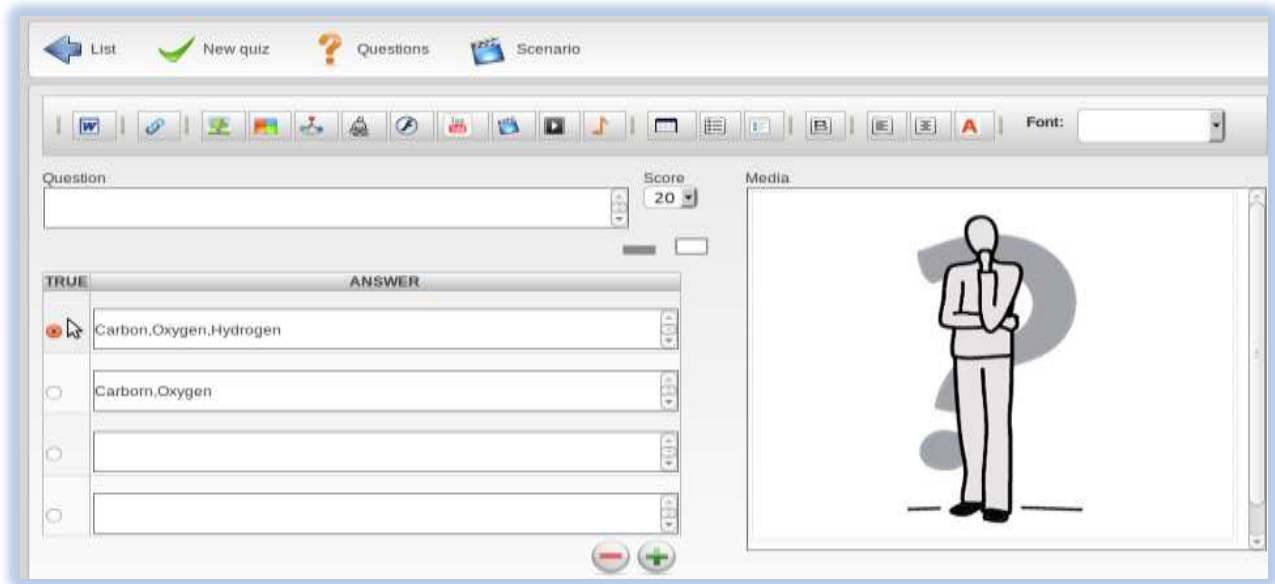


Figure 8: Quiz sub-module: enables anyone to post any question

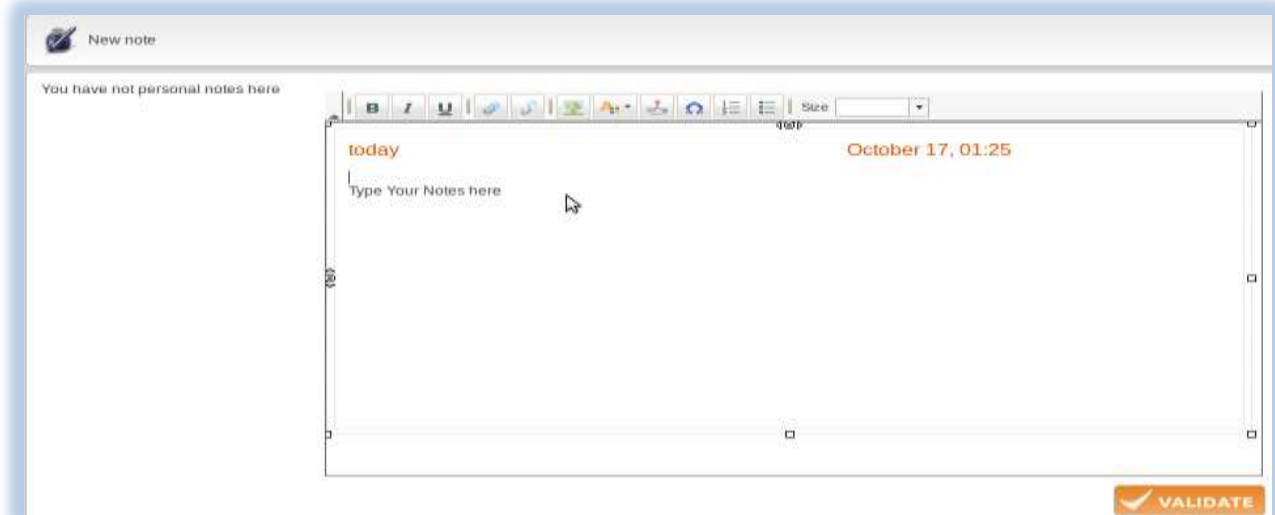


Figure 9: Notes, enables users to write short notes or reminders

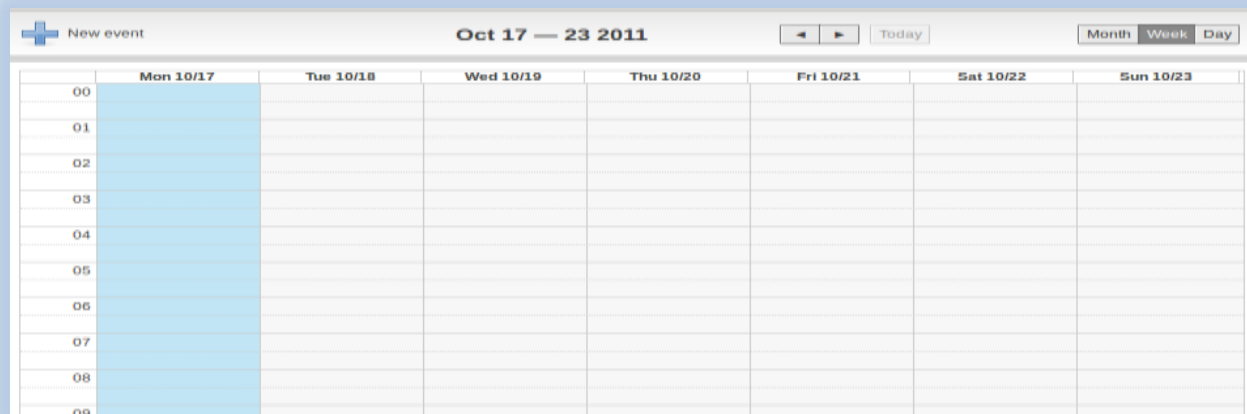


Figure 10: Events. This allows users to create and manage their events, e.g. timetables

The e-library module

This module offers online library where subscribed users can access eBooks (in .pdf format).

The figure shown below illustrate e-Library module. This is a virtual library where subscribed students can access academic referencing materials much like in an actual library.

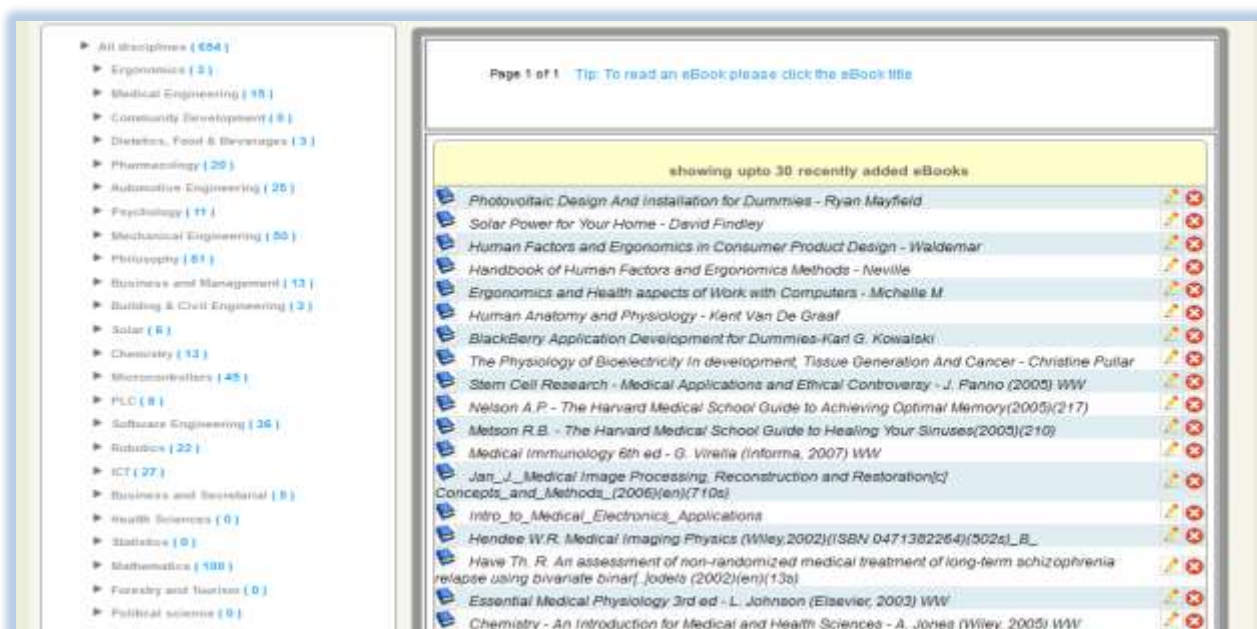


Figure 11: Lists of eBooks (admin view)

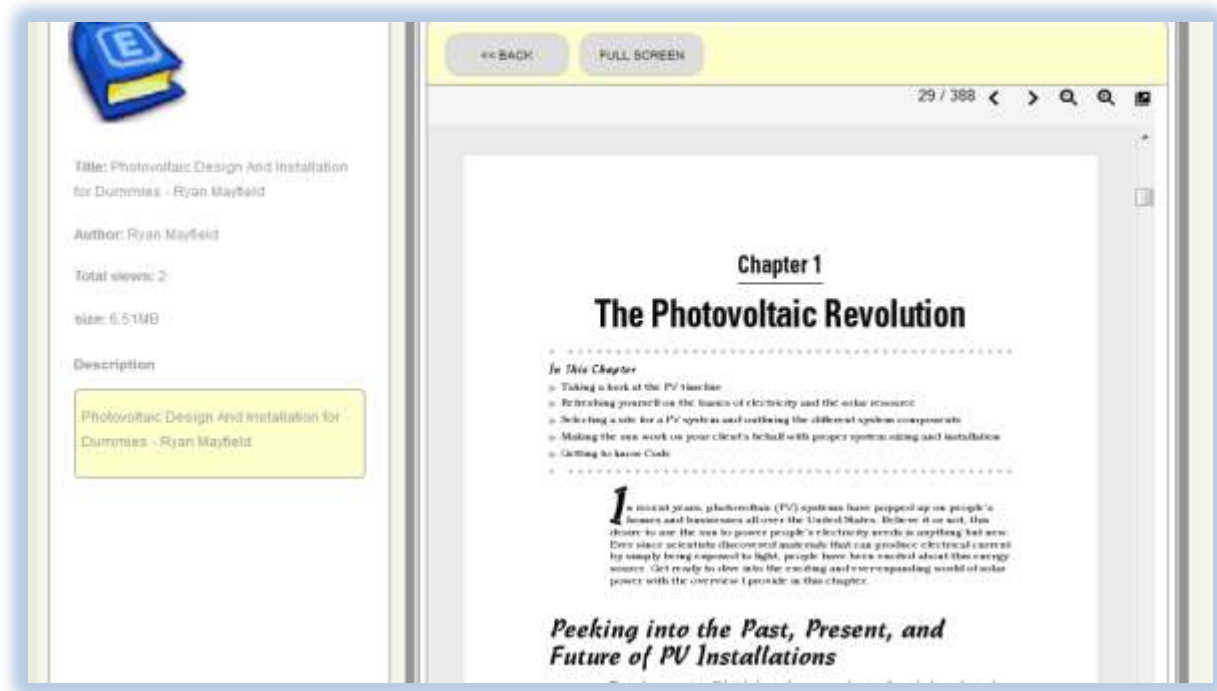


Figure 12: Shows an open eBook

mHealth Application

Reporting

This is a custom made application were built for a local firm. This demonstrates our ability to generate custom and real time reports analyzing dynamic data sets. Basically it is an application used in hospitals and clinics to:

- Remind mothers of taking their babies for immunization
- Remind pregnant women to attend pregnancy check ups
- Remind other patients to attend scheduled appointments.
- Generate various reports

All reminders are sent via SMS (Short Message Service).

The figure shown below shows some reports that were generated from mHealth System:



Figure 13: shows a summary report of new patients and sent Sms

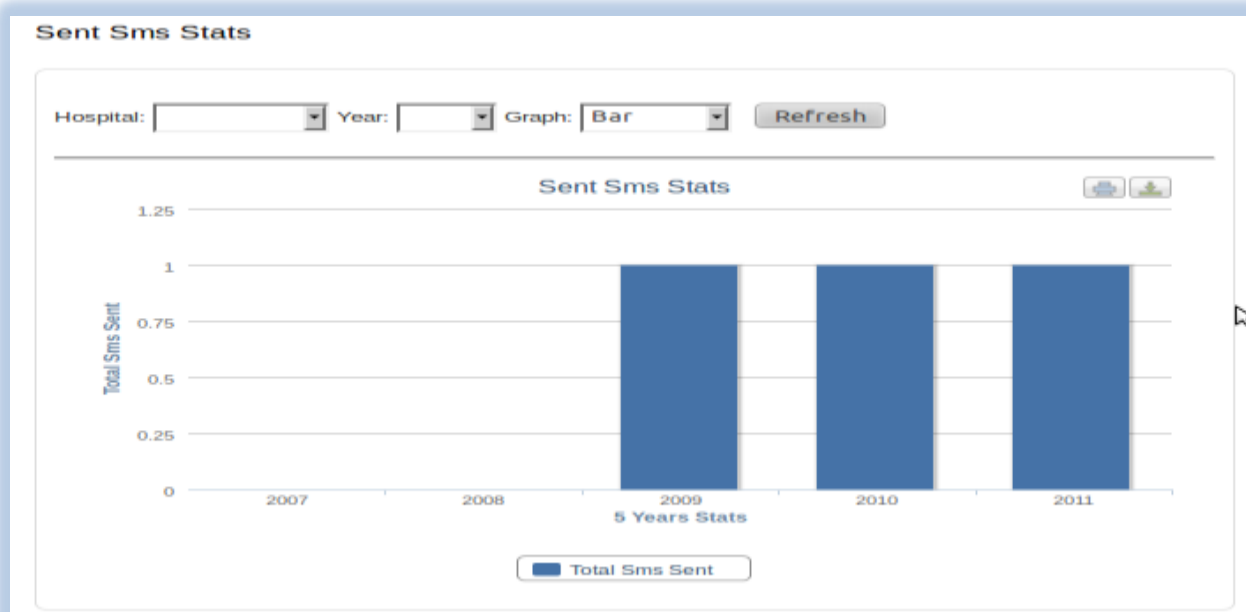


Figure 14: Sent Sms reports shown in bar graphs

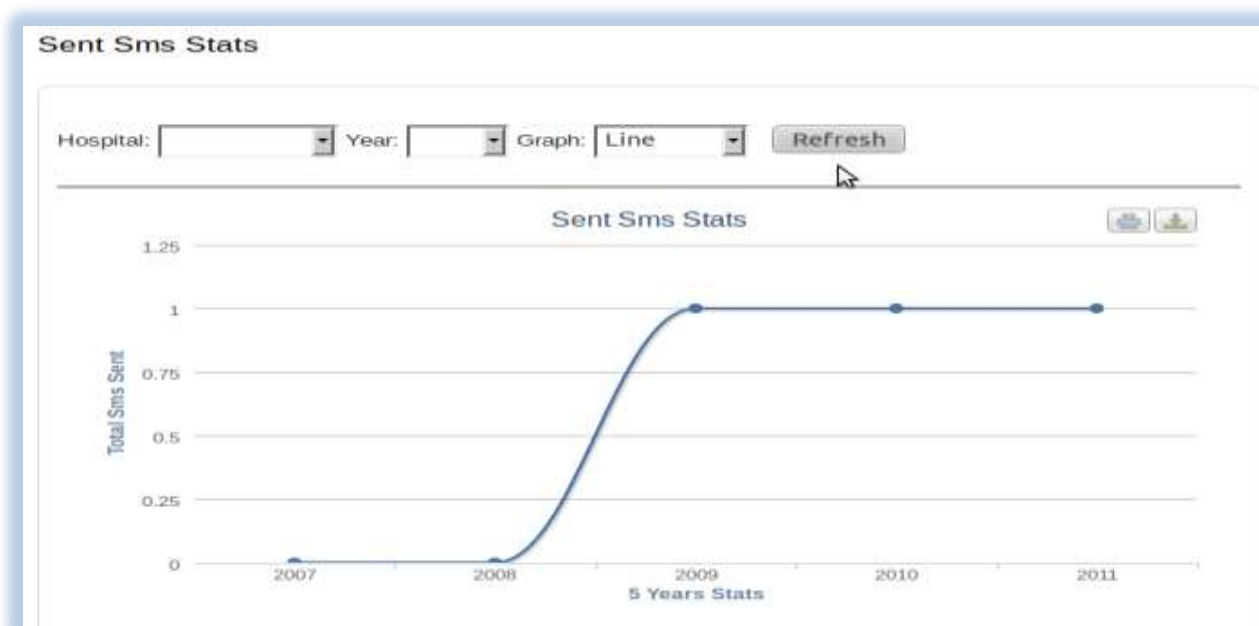


Figure 15: Sent Sms reports shown in line graph

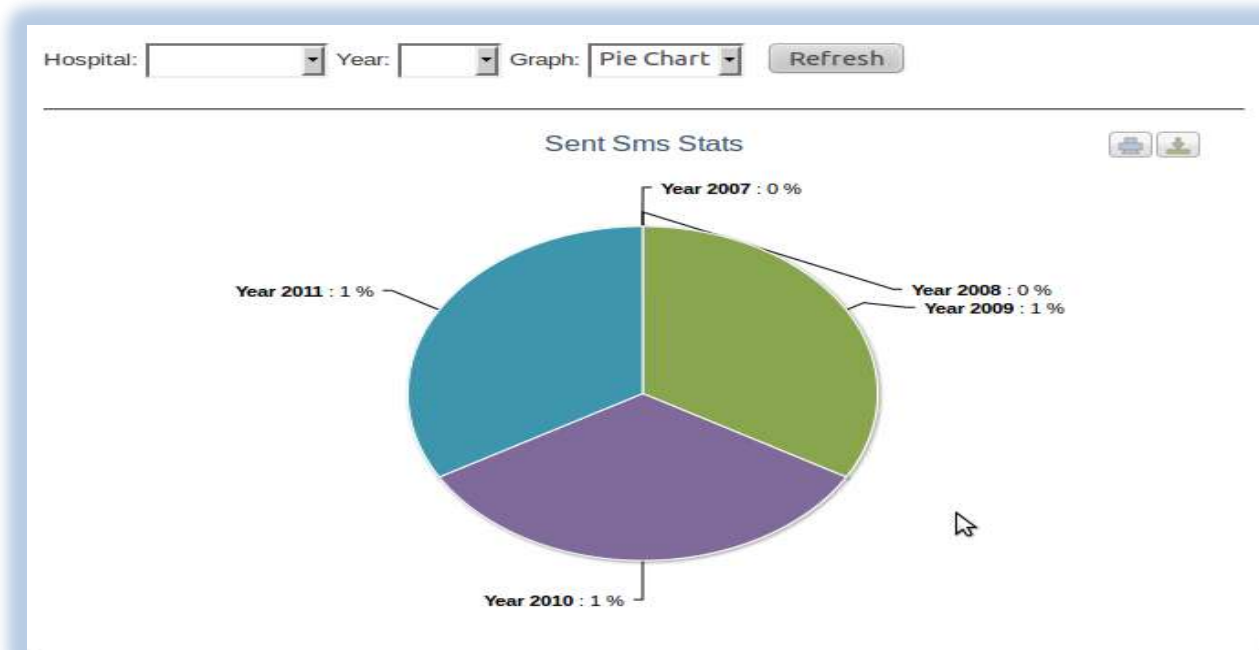


Figure 16: Sent Sms reports shown in piechart

Vente Point of Sale

This is a custom software solution for checkout points whether in the retail or hospitality industry. It allows one to monitor sales and purchases for each item in your inventory and apply KPIs to your staff. The system also prints receipts that have details such as name of the waiter who served you and the V.A.T cost of the meal. This wholesome POS solution has been deployed to hotels, restaurants and supermarkets.

Msafiri Cafe
Powered by PHP Point Of Sale

Welcome steve steve! | [Logout](#) October 14, 2010

[Home](#) [Customers](#) [Items](#) [Reports](#) [Suppliers](#) [Sales](#) [Employees](#) [Store Config](#)

Sales Register

Register Mode: **Sale**

Find/Scan Item: [New Item](#)

Delete	Item Name	Price	Qty.	Disc %	Total	Edit
[Delete]	soda 300ml	50.00	2	0	\$100.00	Edit Item
[Delete]	andazi	20.00	1	0	\$20.00	Edit Item

Select Customer (Optional)
Start Typing customer's name...

OR

[New Customer](#)

Sub Total: **\$120.00**
 16.00% VAT: **\$16.00**
 Total: **\$136.00**

Comments:

Payment Type: **Cash**
 Amount Tendered:

[Cancel Sale](#) [Complete Sale](#)

Extreme Point of Sale System
[Creative Epitome Ltd](#)
 All Rights Reserved 2010 ©

Figure 17: POS system deployed at Msafiri Café

cBase Client Management System

Another tailor made software solution is a desktop application for managing members of a company that has a membership-based or customer reward program. The Insurance Institute of Kenya have deployed it to register members, generate a unique member IDs, update member pay history, capture and follow up on member enquiries and send emails to members on update of their details.



Figure 2: Insurance Institute of Kenya Members Management System

In a recent customization of the same application for a client who sells shoes, we added the ability to send email and SMS messages to the desired members registered in the system. Apparently this greatly increased the client's sales as he could send detailed messages to a targeted category of his shoe customers.

We removed the payment history module and added search and match modules, sending of bulk SMS to targeted members category among other custom modules as per the client's requests.

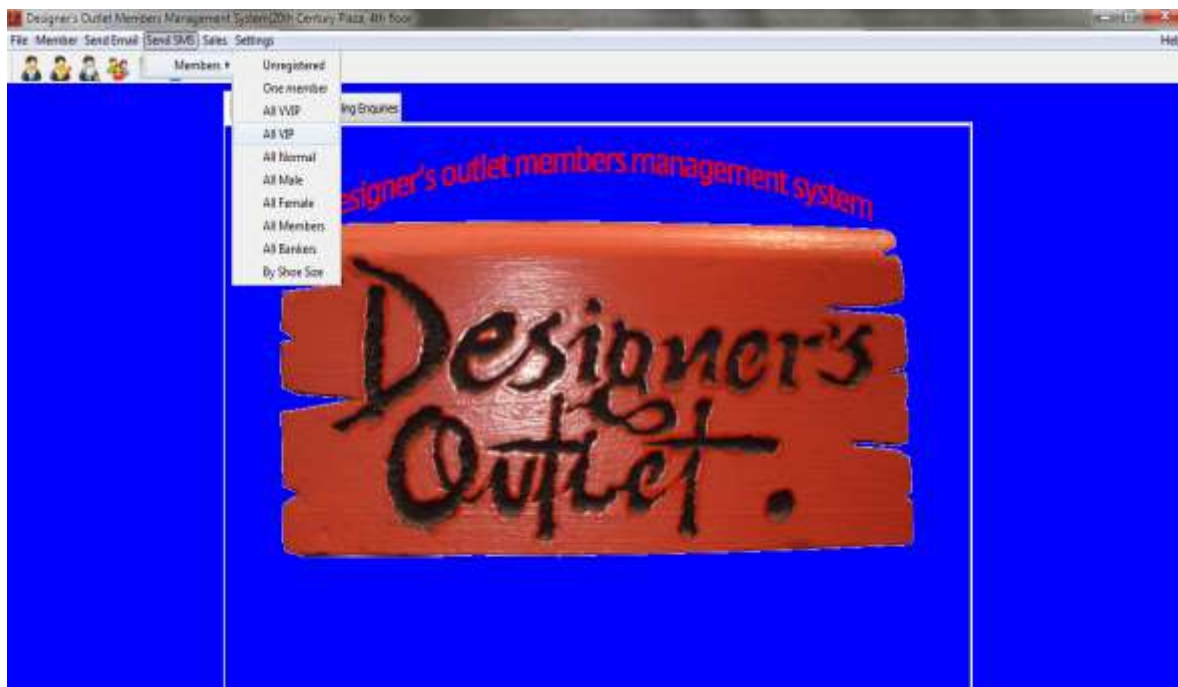


Figure 18: Designers Outlet Members Management System

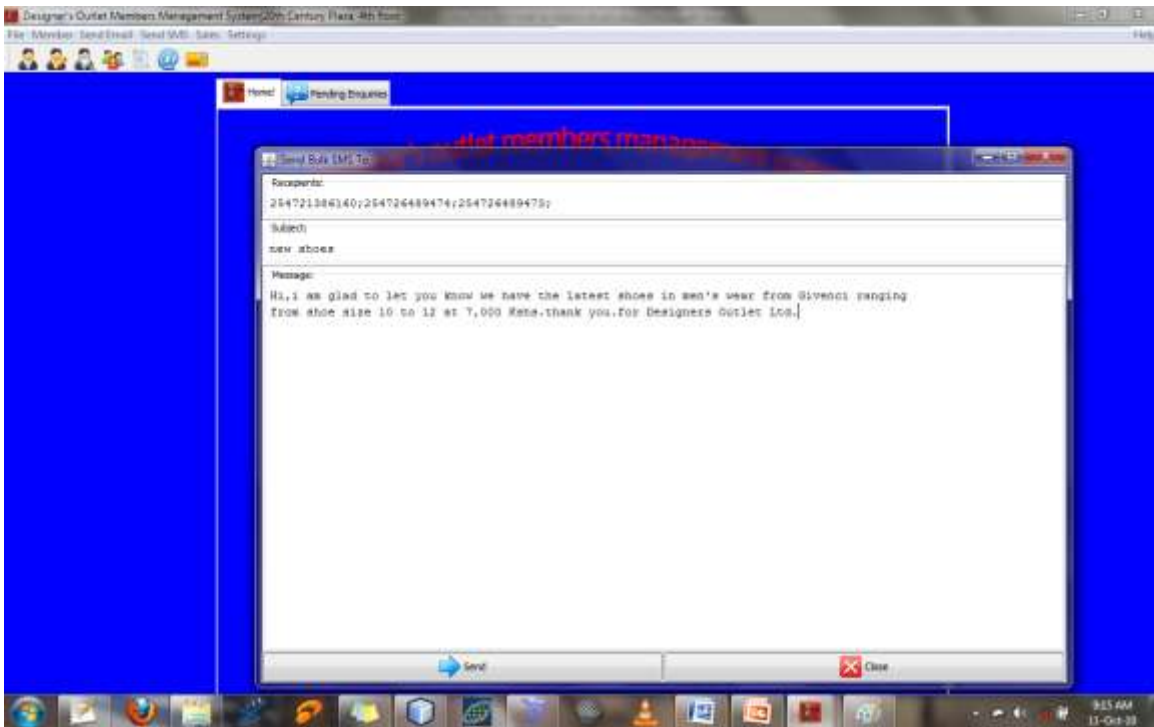


Figure 19: Sending bulk SMS to targeted client category

eMazingira Government Information Portal

This is a platform that will enable the common citizen to send information regarding negative impacts on their environment. Typically, a citizen will identify a case of environment degradation for example human-wildlife conflict or poaching, they shall then send a text to a premium number (for example 2030) indicating their location and a description of the activity together with its impact (in addition, if they have access to email facilities, they may even send pictures or an email detailing the occurrence). Once the text message is received by the eMazingira application it shall be processed and the activity shall be categorized and mapped onto a web portal that will display a map of Kenya with the conflict zones mapped on it. Further, the application shall alert relevant officials on the same via sms & / or email for action. Once the issue is resolved by the appropriate team, the web portal shall be updated by indicating that the activity has been stopped.

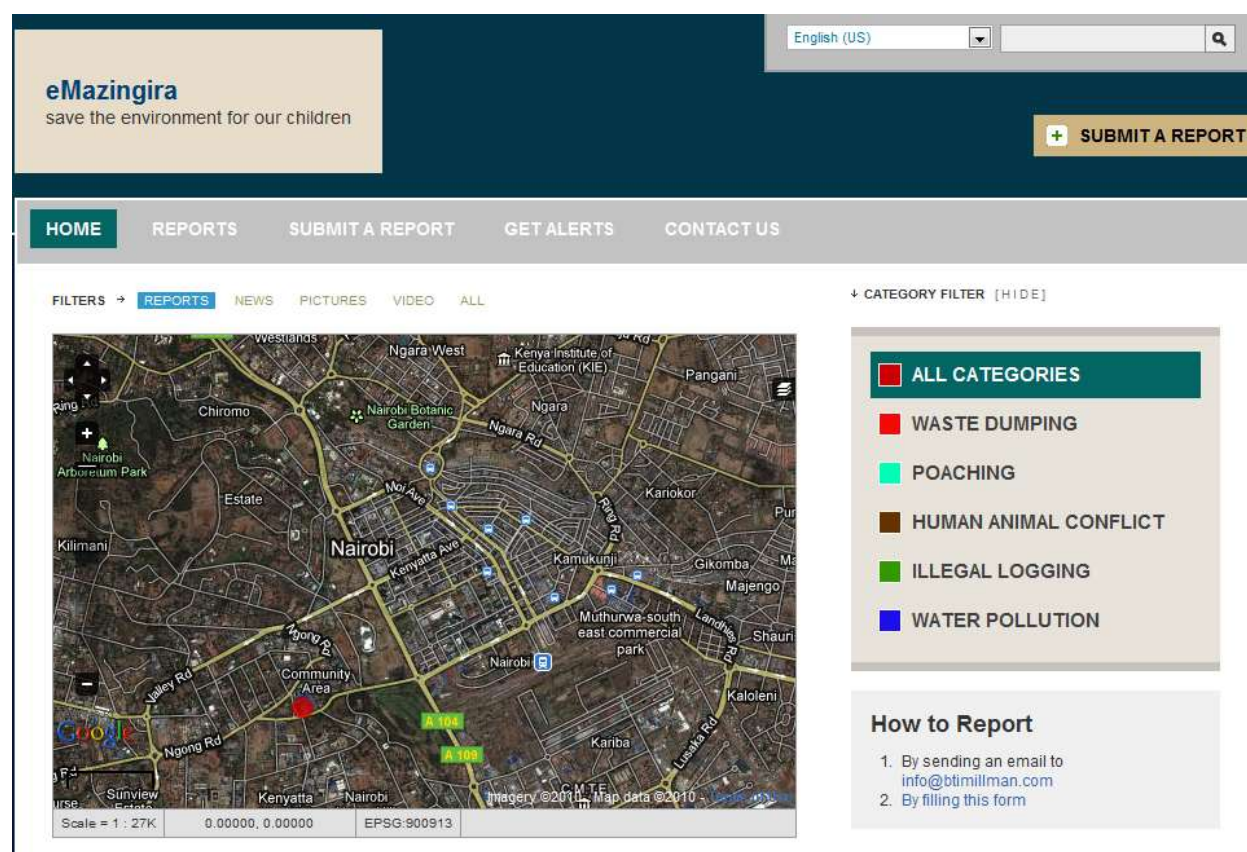


Figure 20: eMazingira crowd sourced data reporting portal

Tarakimu SMS Voting System

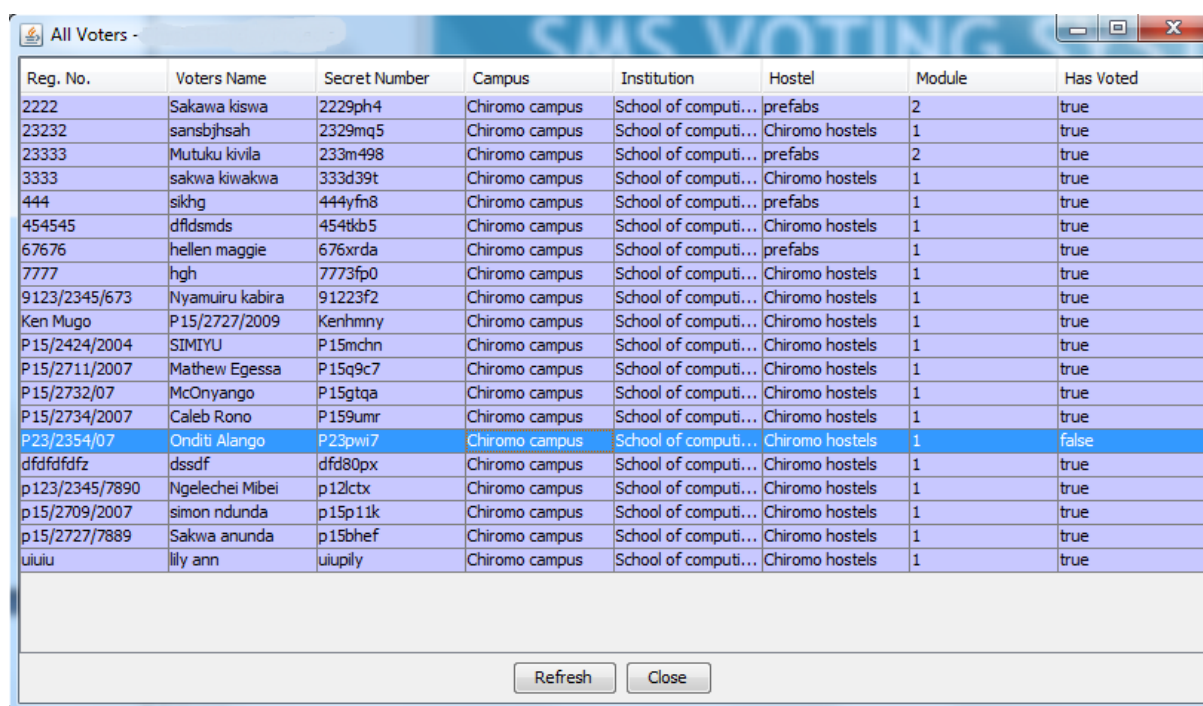
This is an SMS Voting system that was developed for the University of Nairobi Students Organization elections. This was in response to the rampant student unrest that almost always erupted during the elections between opposing camps. It was a java desktop application to be deployed on the server hosting the application for administration of the SMS Voting system. The application was deployed with a normal GSM modem complete with a SIM card for the reception of the messages. It allowed the registration of all students with over 10 parameters per student such as registration number, campus, school, hostel, module among other variables. A unique secret number was then created for the voter to vote via sms with. It also allowed the registration of contestants and the creation of the contestant's electoral code through which voting was done. Real-time display of votes was also enabled as they occurred and also tabulated results per voting category were visible. The voter could query the system about the voting mechanism by sending a query string with the word "help" to the system's modem SIM card number. This system demonstrated that a normal GSM modem with a regular SIM card can be used for data capturing and posting data to a database which can be viewed either from a desktop application at the office or on an online web application.



Figure 4: tarakimuVote SMS Voting System home screen



Figure 5: Voter requesting help about the voting mechanism by sending a query string with the word "help" to the system's modem SIM card number



Reg. No.	Voters Name	Secret Number	Campus	Institution	Hostel	Module	Has Voted
2222	Sakawa kiswa	2229ph4	Chiromo campus	School of computi...	prefabs	2	true
23232	sansbjhsah	2329mq5	Chiromo campus	School of computi...	Chiromo hostels	1	true
23333	Mutuku kivila	233m498	Chiromo campus	School of computi...	prefabs	2	true
3333	sakwa kiwakwa	333d39t	Chiromo campus	School of computi...	Chiromo hostels	1	true
444	sikhg	444ym8	Chiromo campus	School of computi...	prefabs	1	true
454545	dfdsmds	454tkb5	Chiromo campus	School of computi...	Chiromo hostels	1	true
67676	hellen maggie	676xrda	Chiromo campus	School of computi...	prefabs	1	true
7777	hgh	7773fp0	Chiromo campus	School of computi...	Chiromo hostels	1	true
9123/2345/673	Nyamuiru kabira	91223f2	Chiromo campus	School of computi...	Chiromo hostels	1	true
Ken Mugo	P15/2727/2009	Kenhmny	Chiromo campus	School of computi...	Chiromo hostels	1	true
P15/2424/2004	SIMIYU	P15mchn	Chiromo campus	School of computi...	Chiromo hostels	1	true
P15/2711/2007	Mathew Egessa	P15q9c7	Chiromo campus	School of computi...	Chiromo hostels	1	true
P15/2732/07	McOnyango	P15gtqa	Chiromo campus	School of computi...	Chiromo hostels	1	true
P15/2734/2007	Caleb Rono	P159umr	Chiromo campus	School of computi...	Chiromo hostels	1	true
P23/2354/07	Onditi Alango	P23pwi7	Chiromo campus	School of computi...	Chiromo hostels	1	false
dfdfdfdfz	dssdf	dfdf80px	Chiromo campus	School of computi...	Chiromo hostels	1	true
p123/2345/7890	Ngelechei Mibei	p12lctx	Chiromo campus	School of computi...	Chiromo hostels	1	true
p15/2709/2007	simon ndunda	p15p11k	Chiromo campus	School of computi...	Chiromo hostels	1	true
p15/2727/7889	Sakwa anunda	p15bhef	Chiromo campus	School of computi...	Chiromo hostels	1	true
uiuiu	lily ann	uiupily	Chiromo campus	School of computi...	Chiromo hostels	1	true

Figure 6: Voters' window

Kusanya SMS Data Collection System

In terms of reporting, we have built several desktop and web based systems that generate reports based on data received. For example we developed an SMS data collection system for an International NGO, RTI that is based in westlands, Kenya but has operations in 15 countries in Africa. Basically they are funded by the USAID and United States President Malaria Initiative, PMI to spray malaria insecticide in the 15 countries in Africa. Their main problem was that they would issue a laptop and modem to each spray operator on the ground for uploading spray operation data such as insecticide consumption, distribution, household reconnaissance, number of children under five and pregnant women given nets among other operational data. This was not only cumbersome but very expensive rendering the entire operation economically unfeasible. We developed a system that uses a low end phone such as a nokia 1100 (mulika-mwizi) to send an sms to a modem connected to a desktop application that did analysis, collation, storage and reporting on demand. The system was piloted successfully in Ghana and Ethiopia and it shall be rolled out in the rest of the 13 countries in the next malaria season of 2011-2012.



Figure 21: Main interface of the RTI SMS Data Collection System

Some of the systems modules include:

Login

The data manager must login to access any functions of the system. One can either login as an existing data manager or create their profile as a new data manager.



This is necessary as all actions the data manager executes on the system are logged for audits on system usage and access. However, more than one data manager can login simultaneously but from different stations. Each users actions are logged separately.

On logout or exit, the data manager is logged out.

New User

All views for creating a new user are similar. The system has 7 predefined types of users namely:

- Data Manager

This is also the data clerk. Their user id prefix is DM. They accounts allow them to login to the server application and manage the application. Hence on registration, they are required to give username and password for accessing the system.

- Geographic Reconnaissance Enumerator

These go door to door counting population per household structure to be sprayed. Their prefix is GRE.

- Mobilizer

This is mobilization personnel. Their user id prefix is MOB. They distribute anti malaria advisory brochures, nets and such other paraphernalia. They are supervised by team leaders of user id prefix TLMOB.

- Spray Operator

These do the actual spraying of malaria insecticide. Hence they are responsible for sending the bulk of the data via Kusanya@. Their user id prefix is SOP.

- Team Leader

These are supervisors to squad leaders, Mobilizer and reconnaissance personnel. They can also send data collected on behalf of lower level personnel.

- Squad Leader

These are supervisors to spray operators. They can also send data collected on behalf of lower level personnel.

- Supervisor

These are supervisors to team leaders. They can also send data collected on behalf of lower level personnel.

A Sample view for creating a new user is shown below:



User ID	GRE008
Full Names	
Phone Number	
Email	
Active	Yes ▼
Team Leader	TL001 ▼

Save Cancel

The variables in bold are required.

All user ids are auto generated to ensure uniqueness. At least two names are required when creating a new user. They need not be unique. The phone number is used by the system to identify the user hence must be unique. In addition it must have the country code prefix appended to ensure successful remission of data via sms.

The email is optional. But when put, it must follow email conventions of [x@y.z](#) else the system will fail to save the new user. The active status is set to yes by default but can also be no. an inactive user cannot remit data to the system until they are removed from their dormant state.

The team leader/supervisor is a drop down list of all superiors to this new user being created. This means supervisors are created first, and then team leaders then the rest of the users in any order as they are mutually independent.

Some users have additional parameters such as data manager where the username and password for accessing the system are defined. Both must be longer than 4 characters and the confirmation password must match the given password.

Update user

This view is used for four functions for all users:

1. To view the particular details of a user
2. To update the user details
3. To deactivate/activate a user
4. To delete a user.



The screenshot shows a Windows-style dialog box titled "Update Data Manager". It contains the following fields and controls:

- User ID:** Text box containing "DM035".
- Full Names:** Text box containing "Esther Wanjiru".
- Phone Number:** Text box containing "25478934567".
- Email:** Text box containing "esther@yahoo.com".
- Active:** A button labeled "Yes" with a small downward arrow.
- Deleted:** A button labeled "No" with a small downward arrow.
- Username:** Text box containing "esther".
- Password:** Text box containing "esther".
- Confirm Password:** Text box containing "esther".
- Buttons:** "Update" and "Cancel" buttons at the bottom right.

Data Management

System variables are all geographical areas of operation that must be defined for the field operatives to operate in. These are:

- **Regions**

This is the highest entity on the geographical area of operations hierarchy. It must be defined first. It is identified by a double digit numeric figure.

- **Level A,B and C areas**

Either of Level A and B falls below a region. In case Level A is a district, then Level B is a sub district and Level C is a zone. Else if Level A is a zone, then Level B is a district and there is no Level C. They are also defined using a double digit figure. These three variables must be activated and their values predefined before instances are created.

- **Village**

This comes either below level b (district) or level c (sub district). It is the least unit of operation as below it falls a household with its structures.

A village is defined using a three digit figure to accommodate numbers greater than 99.

New Village

ID: 210201004

Name:

Level B ID: 210201

200101

210101

210201

012007001

012001001

190102

010005001

190101

Cancel

The id's for all variables other than region are generated on selecting the level above it from the drop down menu at the bottom that contains all areas hierarchically above this area.

There is a special variable called reason and is used to capture various possible blanket reasons why a field officer failed to execute their functions. Sample reason is like "There was no one at home to answer the door" and so on. The id is also auto generated.

New Reason

ID: 07

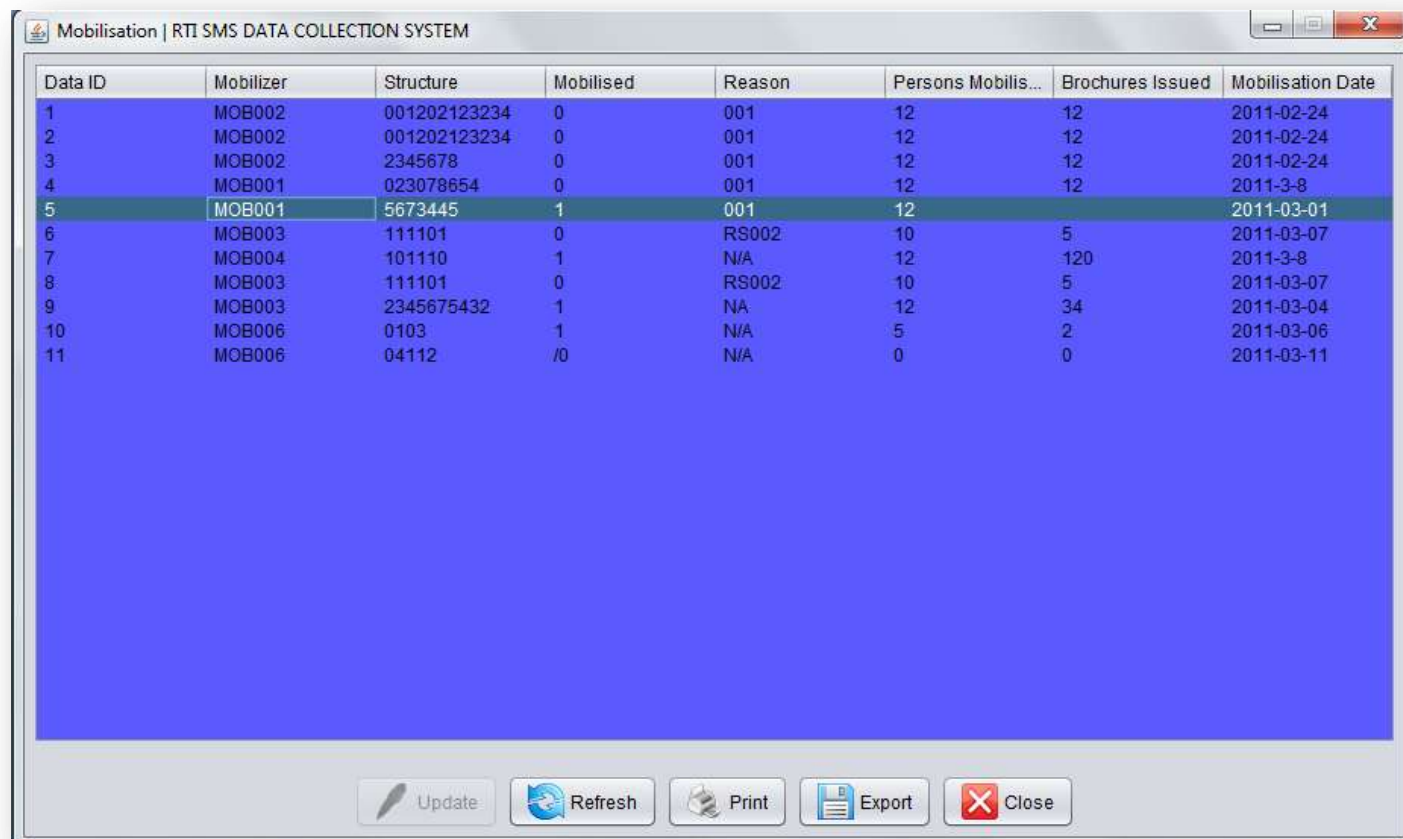
Reason: There was no one at home

Save Cancel

A list of all reasons is distributed to all field officers to refer from when sending their data as they only send the reason id.

Reports

These are summaries of data in a tabulated format. A sample view is given below:



Data ID	Mobilizer	Structure	Mobilised	Reason	Persons Mobilis...	Brochures Issued	Mobilisation Date
1	MOB002	001202123234	0	001	12	12	2011-02-24
2	MOB002	001202123234	0	001	12	12	2011-02-24
3	MOB002	2345678	0	001	12	12	2011-02-24
4	MOB001	023078654	0	001	12	12	2011-3-8
5	MOB001	5673445	1	001	12		2011-03-01
6	MOB003	111101	0	RS002	10	5	2011-03-07
7	MOB004	101110	1	N/A	12	120	2011-3-8
8	MOB003	111101	0	RS002	10	5	2011-03-07
9	MOB003	2345675432	1	NA	12	34	2011-03-04
10	MOB006	0103	1	N/A	5	2	2011-03-06
11	MOB006	04112	/0	N/A	0	0	2011-03-11

These views allow the user to:

- View the details of one data object via the popup menu that comes up when the data object's row is clicked
- Update the details of one data object via the popup menu that comes up when the data object's row is clicked
- Delete a data object via the popup menu that comes up when the data object's row is clicked
- Print the entire view
- Export the entire data in the view to an excel file for importing into other applications. The excel file is stored on the desktop of the PC user.
- Refresh the data in the table if it is updated from another station

Operations data views such as Insecticide Consumption and Distribution, Base Line Count and Mobilization are auto refreshed on successful receipt and processing by the system of the corresponding message from the registered field officers. These view's data instances are also updated using the reference ID sent to the field officer on successful saving of operation data.

The system also generated charts such as pie charts, bar charts to graphically depict the data collected.

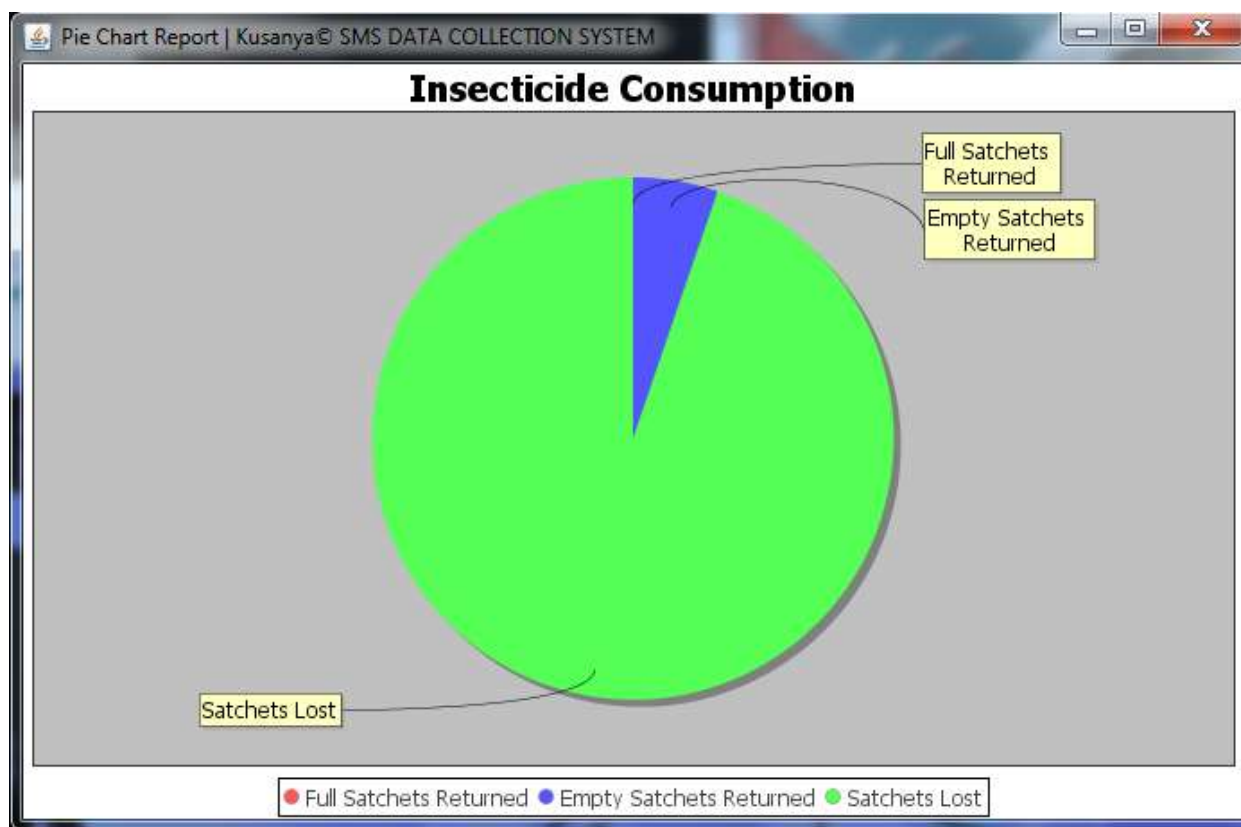


Figure 22: Pie chart report showing usage of insecticide sachet

Eneza BULK SMS System

Eneza™ Bulk SMS Interface provides you with the ability to manage and operate your business online from any corner of the world through a web portal and reach your consumer anywhere, anyplace and anytime via the ubiquitous sms.

Eneza BULK SMS becomes useful in the following areas:

Sending SMS Notifications: it provides an ideal & cost effective way to keep clients informed, since it gets delivered in a few seconds.

SMS call-to-actions: SMS sent to a consumer can also request a specific response. Response rates in excess of 10% have been recorded on some activities.

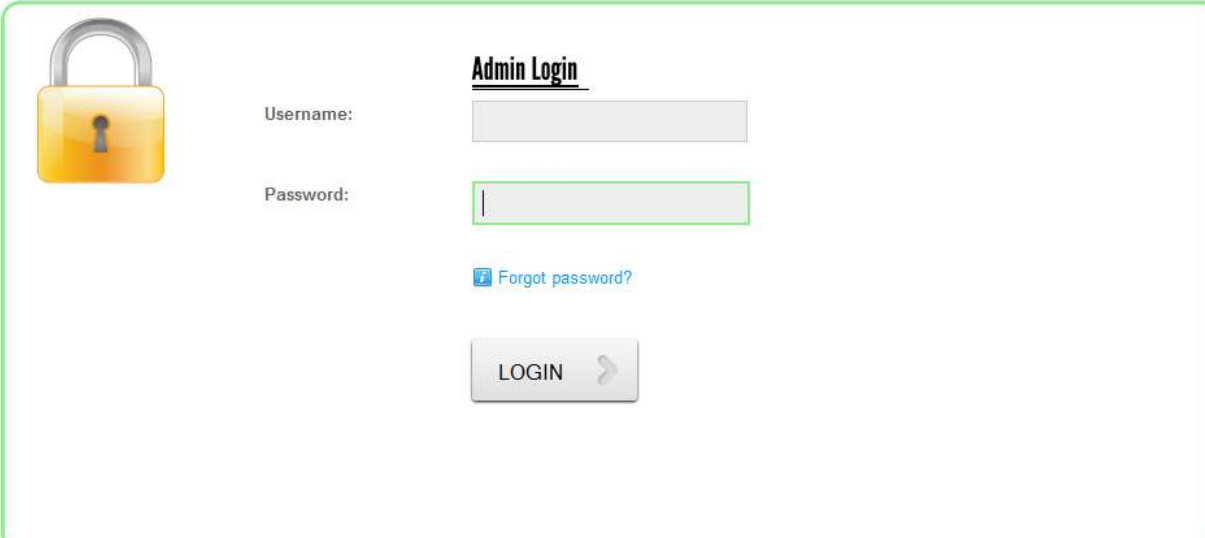
Season's Greetings & Goodwill Messages: SMS is a cost effective and much more personal way of sending these messages during this festive season. It does this with a difference.

The sms platform has the following features:

- An intuitive and easy to use interface
- User defined contact groups can be created as target lists

- Allows for importing, appending, editing and deleting of contacts from excel.
- Generating of reports in form of graphs and spreadsheets
- Scheduling of messages to be sent automatically on a daily, weekly, monthly or annual basis.

Below are some screenshots of the system:



The screenshot shows an 'Admin Login' form. On the left is a large yellow padlock icon. To its right, the text 'Admin Login' is underlined. Below this, there are two input fields: 'Username:' and 'Password:'. The 'Password:' field is highlighted with a green border. Below the password field is a blue link that says 'Forgot password?'. At the bottom of the form is a grey button with the text 'LOGIN' and a right-pointing arrow.

Figure 23: Secure login only for authorized personnel

This allows the secure login of only authorized personnel to perform administrative duties such as creation of client accounts, assigning clients sms credit among others.

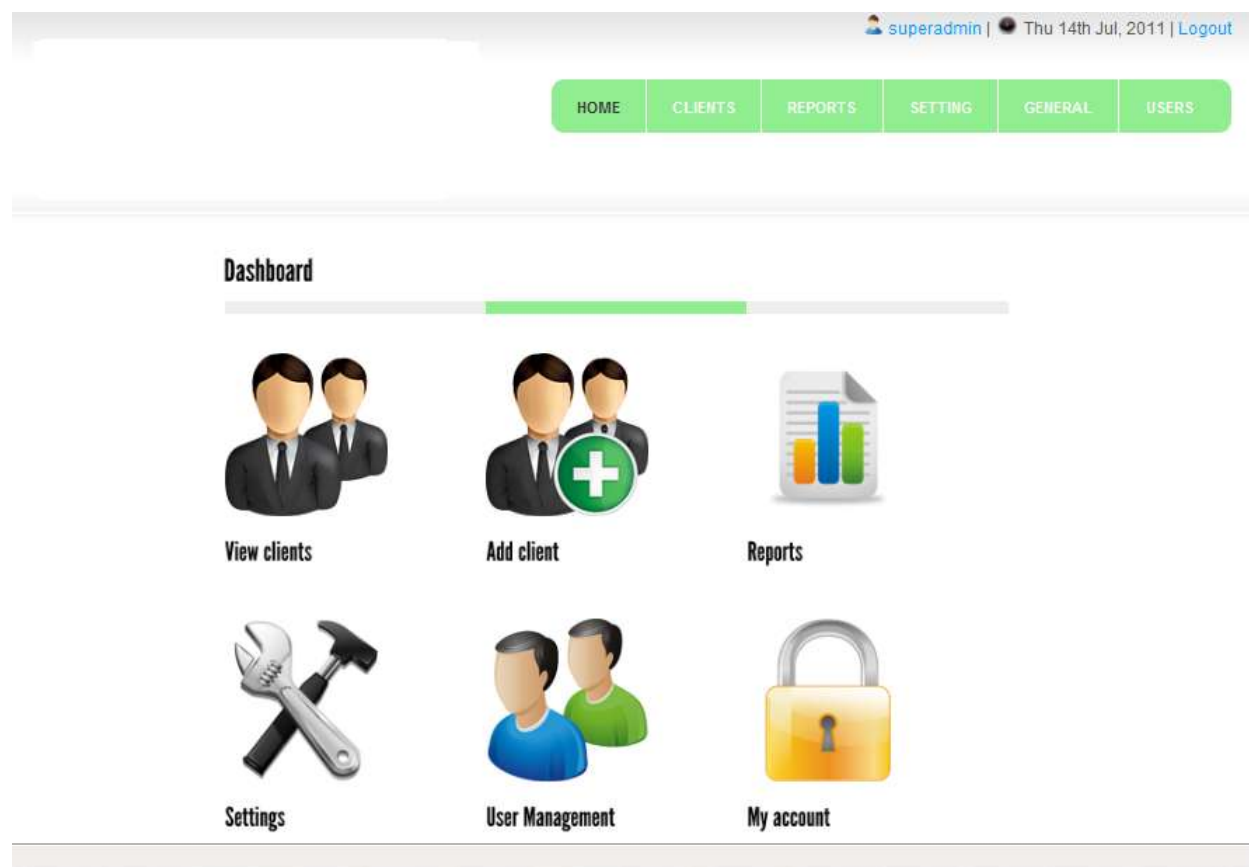


Figure 24: administrative dashboard

This is the home view of the administrator. From here one can navigate to client management, generation of reports, management of other administrative users e.t.c

The screenshot shows the administrative dashboard. At the top right, it displays the user 'superadmin' and the date 'Thu 14th Jul, 2011' with a 'Logout' link. Below this is a navigation bar with tabs: HOME, CLIENTS (active), REPORTS, SETTING, GENERAL, and USERS. The main content area is titled 'view clients' and includes a '+ Add' button. Below the button are search filters: 'Client:' with an input field, 'Status:' with a dropdown menu set to 'All', and 'Search' and 'Clear' buttons. A table lists five clients with columns for checkboxes, Client name, Route, Total sent, SMS balance, Status, and an 'Assign Credit' link.

<input type="checkbox"/>	Client	Route	Total sent	SMS balance	Status	
<input type="checkbox"/>	Joseph	default change route	0	0	inactive	Assign Credit
<input type="checkbox"/>	Ann Muthoni	default change route	3	7	active	Assign Credit
<input type="checkbox"/>	JIMCO	default change route	0	0	inactive	Assign Credit
<input type="checkbox"/>	James	default change route	0	5	inactive	Assign Credit
<input type="checkbox"/>	Test	default change route	204	32	active	Assign Credit

Figure 25: client management portal

This is a sample clients view. From here the admin can create more clients, delete existing clients, edit client details, assigns sms credits, change route of sending sms among other functions.

superadmin | Thu 14th Jul, 2011 | Logout

HOMECLIENTSREPORTSSETTINGGENERALUSERS

Notices

+ Add

Title: date added: Status: published

Title	Notice	Date added	Status		
Successfull maintenance	First and foremost we thank you, as our client for your patience during the maintenance period. Our service have been Improved greatly.For instance, scheduling of SMS has a new feature where you can choose to schedule one.daily,weekly,bi-weekly or monthly, that is, daily scheduling means the SMS is sent daily,weekly sent every week etc. Another feature worth noting is that you can now upload contacts from excel(.xls or .xlsx) without having to convert the excel file to .csv file. You can also send SMS from excel file without having to save the contacts.Please view help for more details. Also, worth noting is the facility, in the settings section, that allows you to upload a	Jun 25, 2011 4:16:33 PM	published	unpublish	delete

Figure 26: client notifications message board

This area manages the client side notification message board. It allows the admin to communicate directly with the registered clients.



Figure 27: generating and viewing usage statistics

This is the reporting module of the system. It can generate graphs given a range of period of activity on the portal. The reports are easily exported to excel or csv formats.

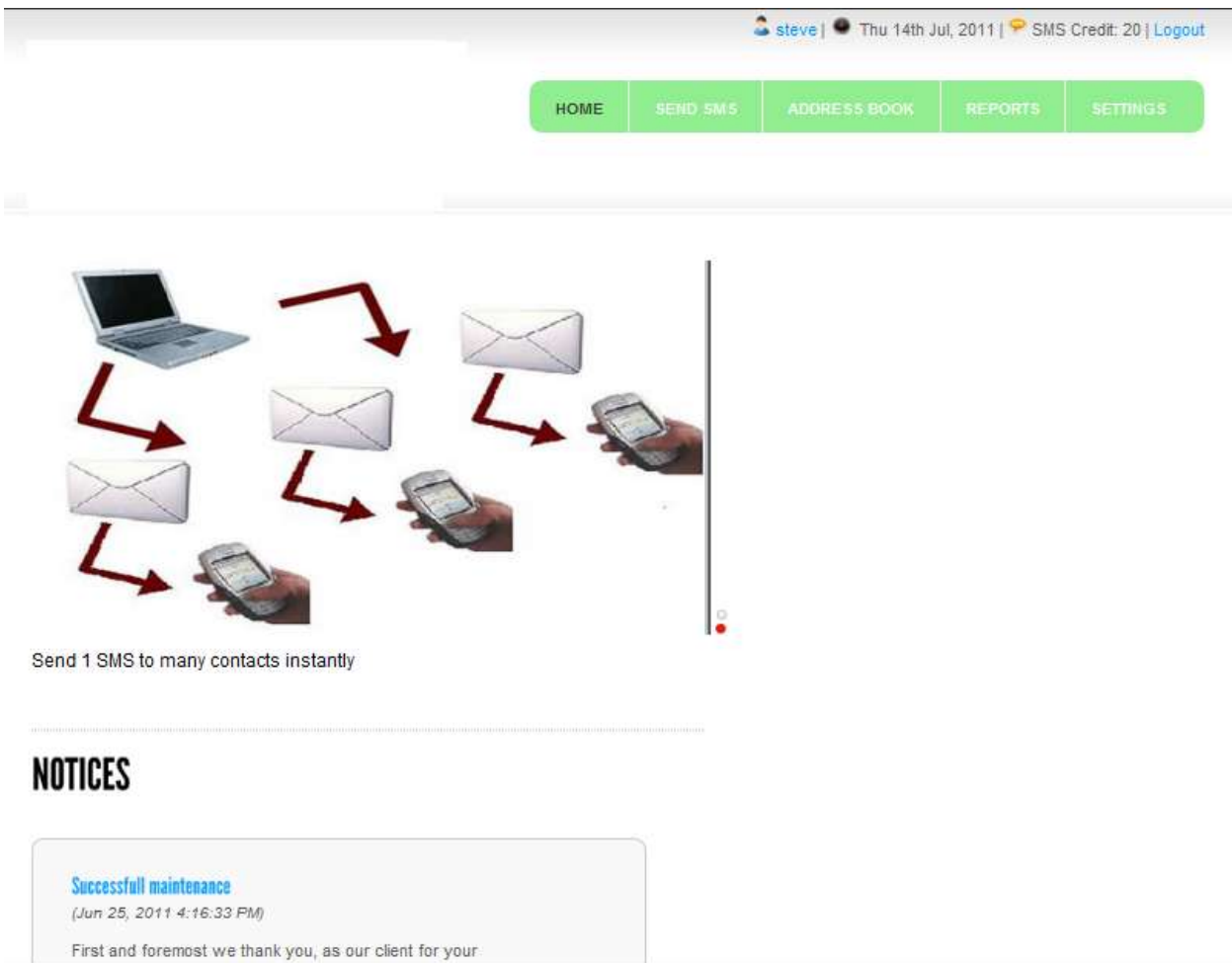


Figure 28: client side dashboard

This is the client side of the system. It allows the client to log in, create target groups, send bulk sms, generate reports, edit settings among other duties.

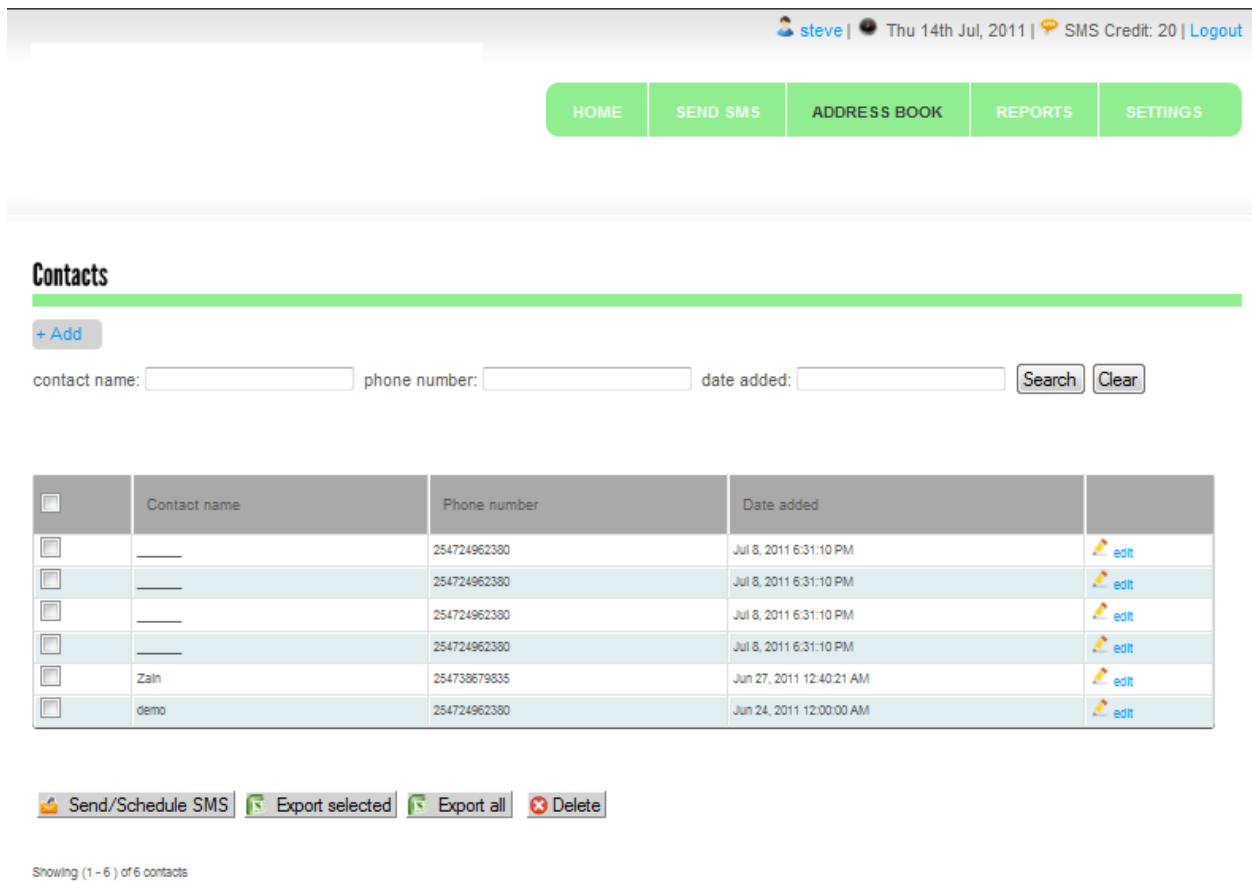


Figure 29: address book

This is the address book where the client defines target groups depending on different categories. This allows the sending of one message to a group of related contacts.

steve | Thu 14th Jul, 2011 | SMS Credit: 20 | [Logout](#)

HOMESEND SMSADDRESS BOOKREPORTSETTINGS

Send SMS to saved groups

SEND NOW

OR

SAVE DRAFT

Groups:

test (2 contacts) ☐

Message:

Message...

Send as:

Schedule

You can schedule a message to be sent to a group of contacts automatically.

Date: Time: : : Option:

Figure 30: send sms interface

This is the core functionality of the system that allows the defining of the recipients, the senders ID and the message to be broadcasted. The recipients can either be defined uniquely, uploaded from an excel file or chosen from a predefined group in the address book.

Mobile Numbers
(each on a new line):

Message:

Message...

Send as:

Schedule

You can sc... contacts automatically.

Date: Time: : : Option:

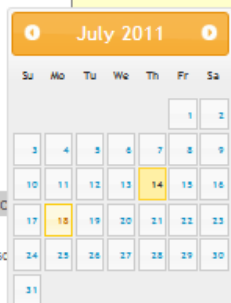


Figure 31: scheduling sms for sending on a regular basis

Scheduling allows the automatic sending of the same message to a recipient or group of recipients regularly as per one's wish.

miPages Business Directory with web, mobile, sms and USSD Interface

Another niche we occupy is the USSD mobile platform. We have built a custom business directory for a client in Zimbabwe that has a PC web, mobile web, SMS and USSD interfaces. The project is online at mipages.co.za. The USSD interface is accessible via +263 86 22 800 900

Below are some screenshots of the platform

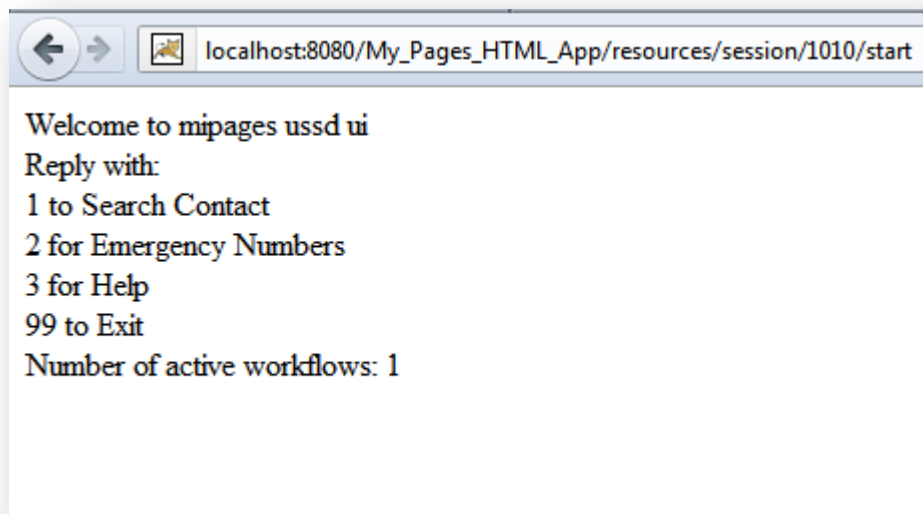


Figure 32: USSD main menu

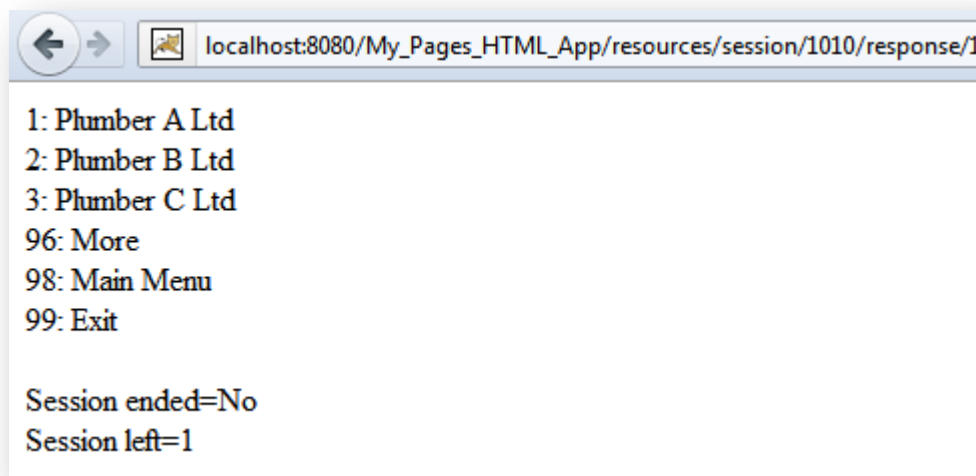


Figure 33: Business Listings available

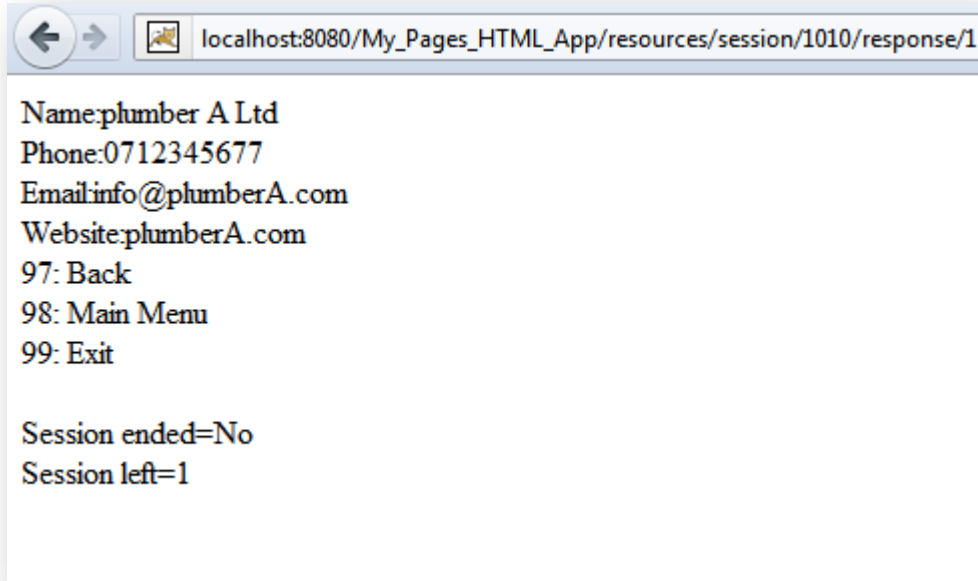


Figure 34; Details of selected business

SmartDX Hospital EMR System

We are extending the open source project OpenEMR to create a custom android app that fetches patient's data from the platform by medical personnel on the go such as lab technicians, nurses, pharmacists and doctors. The app shows patient details such as contacts, prescription history, hospital attendance history and lab results. Below are sample screenshots of the app:

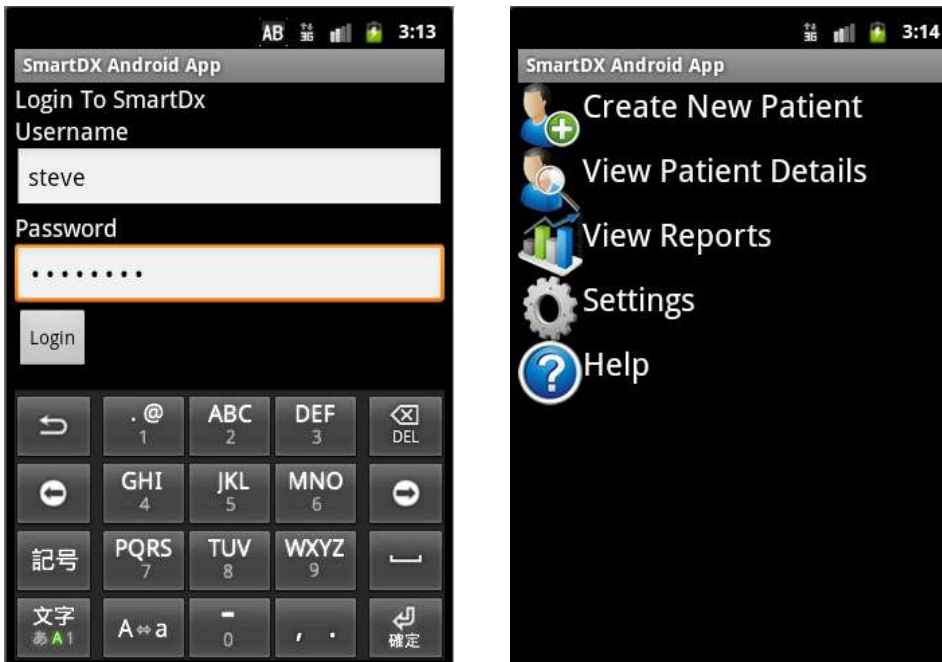


Figure 35: SmartDX patient data android app

mAssessor Mobile Assessment and Valuation System

Currently both evaluation and assessment of assets for insurance purpose are done manually by registered professional agents called Assessors. The evaluation process requires an assessor to visit the asset location physically to capture the asset details. Depending on the asset type, the assessor also carries a questionnaire called an Asset insurance Proposal Form. [See Appendix D].

The form captures the client's details and the asset details. In addition, the agent takes at least two photos of the asset in question for proof of existence in case of an evaluation while in case of an assessment, takes as many as can clearly show the damage incurred by the asset.

This data is taken back to the Assessor's offices for collation and analysis to determine the premium or compensation payable. A policy schedule is generated detailing the premium or compensation due which is sent to the client. As such, an assessor can at most evaluate or assess one asset due to the physical constraints involved.

mAssessor, aims to increase the efficiency of this process by automating the data capture, remission to data centers for analysis and subsequent sending the premium or compensation payable to the client in real time.

It will also avail the data on demand via SMS by the client remotely to save the client the convenience of travelling to the assessors physical location.

It will also go a step further and perform audits of the insurance data providing indepth analysis of trends and patterns observable.

Project Objectives

Therefore, this project plans:

- To reduce the time it takes to evaluate an asset for insurance cover.
- To reduce the time it takes to assess a damaged asset for compensation.
- To increase efficiency of assessors thus increase the number of assets covered per day.
- To increase customer satisfaction of the insurance process by availing Value Added Services such as premium due or compensation payable to the client on demand via SMS

mAssessor is a prototype proof of concept project that investigates the feasibility of automating the asset evaluation and assessment process. A lot of advantages stand to be gained with a commercial full scale version such as:

- Increased efficiency of the evaluation and assessment processes
- Increased revenue from increased asset covers hence greater profits
- Improved customer satisfaction from the Value Added Services such as premium due on demand

System modules include:

mAssessorApp: A j2me mobile application

This will be installed in the assessor agent's java enabled phone for data capture and remission to server. It allows the agent to:

- login to the server
- send client details to server e.g name, phone number, address e.t.c
- send asset details to server e.g registration number, number of passengers
- send a new asset details to server
- send photos of the new asset being evaluated to server
- send report of damage or loss of an asset to server
- send photos of damaged asset or location of theft for proof to server

mAssessorServer: The system logic

A resfull server application for processing mAssessorApp data

This will be installed in the assessor's server for:

- Handling agents sessions
- Saving client and asset details and generating a unique client ID
- Adding new asset under existing client
- Saving evaluation and assessment photos
- Calculating premium due based on class of cover requested, type of asset and number of passengers
- Calculating compensation value on asset damage.

mAssessorPC: Admin User Interface

A desktop application for accessing mAssessorServer data

This is the main application of the project that:

- creates system users such as agents, clients and system administrators
- manages users details such as updating, deleting etc
- retrieves asset details and photos for viewership in the evaluation or assessment process
- approves premium or compensation value
- sends email to client with asset details and premium or compensation determined by the assessor

- processes clients SMS requests for evaluation or assessment data and replies to them
- generates excel reports of asset, evaluation, assessment or user details
- prints reports of asset, evaluation, assessment or user details

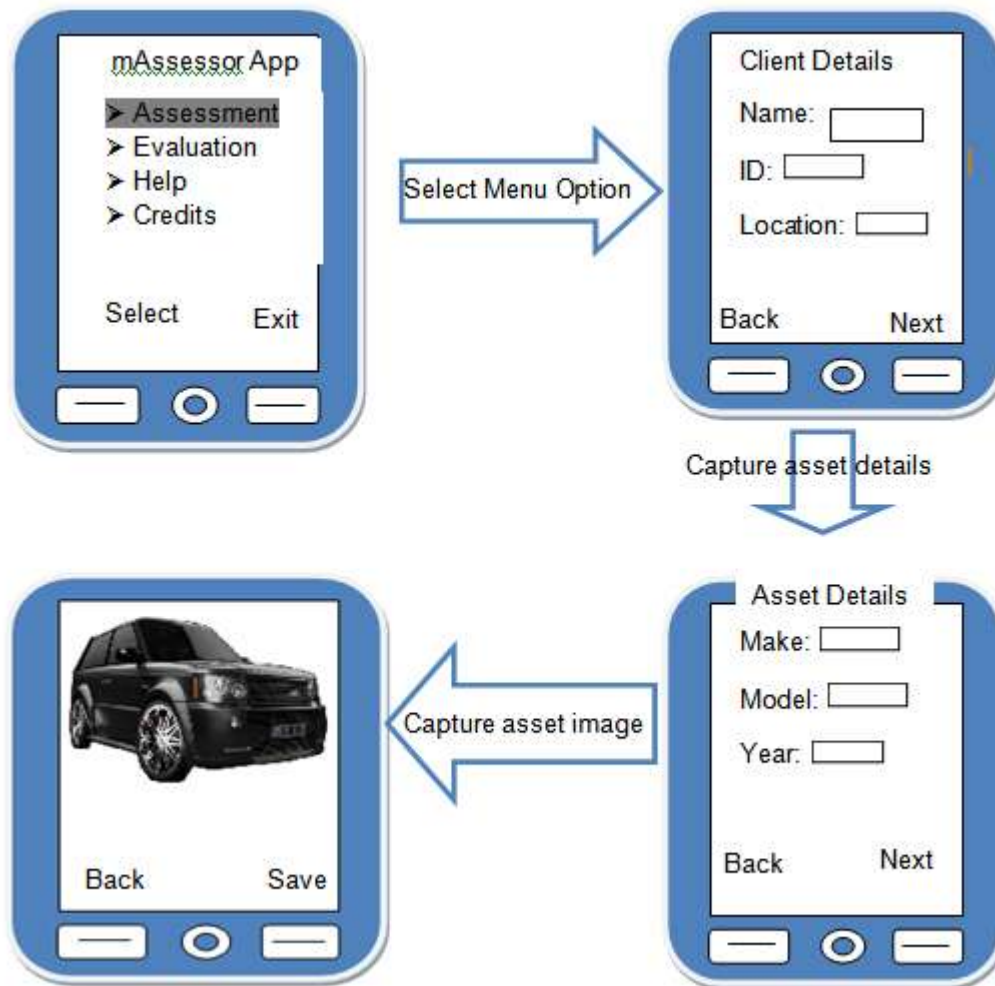


Figure 36: Sample system logic showing data capture



Figure 37: Sample screenshots of actual massessor mobile app

Home Insert Page Layout Formulas Data Review View

Cut Copy Paste Format Painter Clipboard Font Paragraph Alignment Number Styles Conditional Formatting Format as Table Cell Styles Insert Delete Format

A1 View Evaluations Report

	A	B	C	D	E
1	View Evaluations Report				
2	Evaluation ID	Asset ID	Premium	Approved	Date
3	41	71	103112	1	2011-05-22 21:11:37.0
4	40	70	38010	1	2011-05-19 23:54:01.0
5	39	69	169068	0	2011-05-19 23:48:46.0
6	38	68	196823	0	2011-05-19 23:45:25.0
7	37	67	119847	0	2011-05-19 23:42:33.0
8	36	66	141977	0	2011-05-19 22:01:07.0
9	35	65	141977	0	2011-05-19 22:00:04.0
10	34	64	141977	0	2011-05-19 21:57:06.0
11	33	63	7072	0	2011-05-19 21:52:55.0
12	32	62	7072	0	2011-05-19 21:34:31.0
13	31	61	7072	0	2011-05-19 21:28:44.0
14	30	60	390	0	2011-05-19 21:26:12.0
15	29	59	40	0	2011-05-19 21:24:01.0
16	28	58	40	0	2011-05-19 21:20:17.0
17	27	57	40	0	2011-05-19 21:18:14.0
18	26	56	40	0	2011-05-19 21:18:13.0
19	25	55	40	0	2011-05-19 21:18:09.0
20	24	54	40	0	2011-05-19 21:17:27.0
21	23	53	40	0	2011-05-19 21:11:22.0

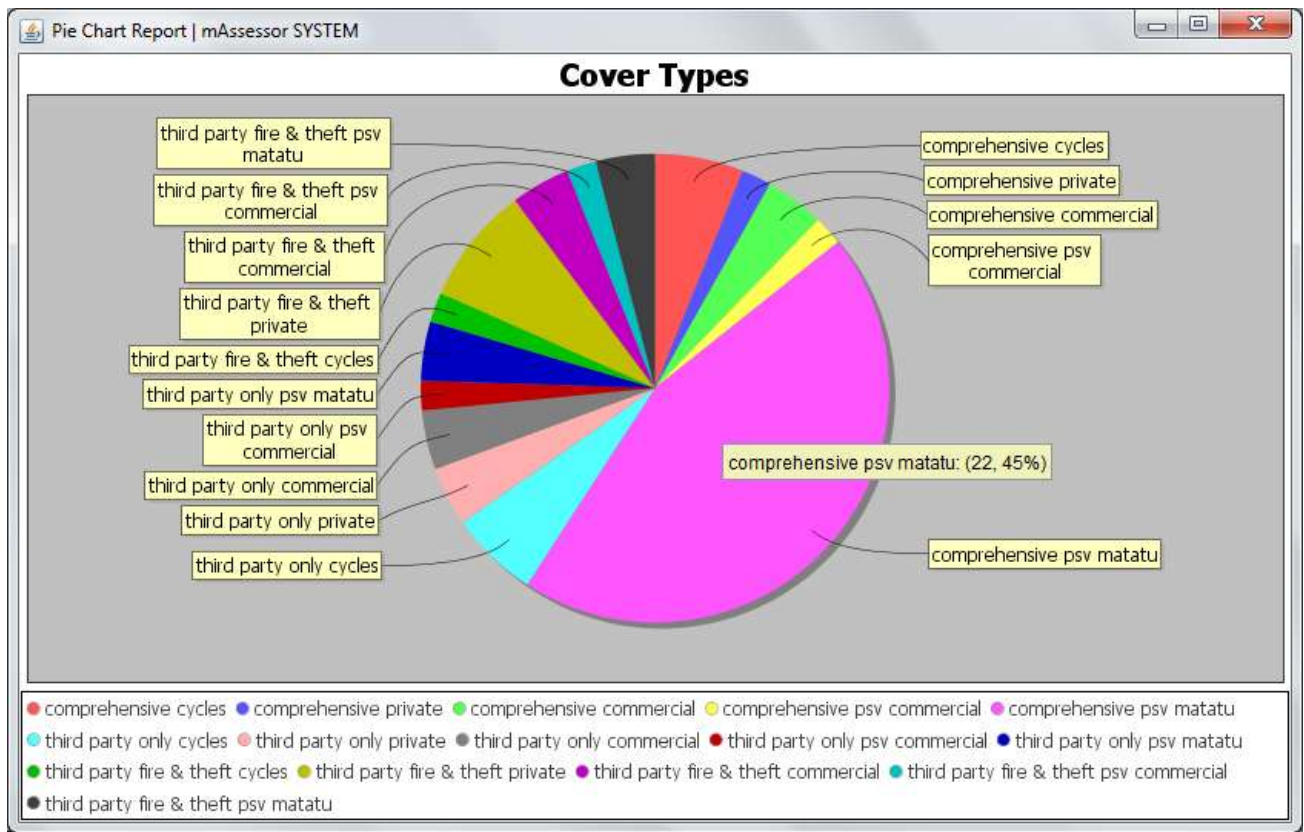


Figure 38: Sample reports generated by the system

Ventes Optima Stock and Sales Optimization Android Application

The mobile stock unit tracking app enables filed personnel to conveniently and efficiently report on units of fast moving goods in their sales region. It runs on android smart phones to enable capturing of location of outlet details for mapping purposes



The image shows a mobile application interface for a login screen. At the top, there is a status bar with icons for 3G, signal strength, battery, and the time 12:54 PM. Below the status bar, the text "Please Login First" is displayed. Underneath, there are two input fields: "Username" with a placeholder "enter username" and "Password" with a placeholder "enter password". A "Login" button is positioned below the password field. At the bottom of the screen, there is a logo featuring a stylized globe with the text "VENTES OPTIMA" and the tagline "optimizing sales revenue" below it.

All field personnel are registered in the main server application for the sake of tracking their work logs.

Enter Retailer Details

Outlet Name

Firstname Secondname

Region

Item 1

Phone Number

254726489473

Email Address

user@domain.com

Name of servicing DSD

Register

Choose Stockist Below

☒ Kiosk

☐ Duka

☐ HORECA

☐ Saloon

☐ Supermarket

☐ Other

Submit

VENTES OPTIMA
optimizing sales revenue

The app enables the field personnel to create retailer's outlet details on the move and even send latitude and longitude details to the server application for the sake of mapping the location of the outlet on a digital map of the sale region.

Enter Stock Count

Outlet Name

Kisumu Ndogo

Number of Stock

150

Comments

the manager says the distributor has not been delivering on a daily schedule

Submit

Choose Denomination Below

☒ 0.5

☐ 1K

☒ 2K

☐ 5K

☒ Simpacks

Submit

VENTES OPTIMA
optimizing sales revenue

The app is also equipped to capture units of stock available at the outlet and report them to the server application for generation of sales reports.

Figure 39: sales outlet report for admin

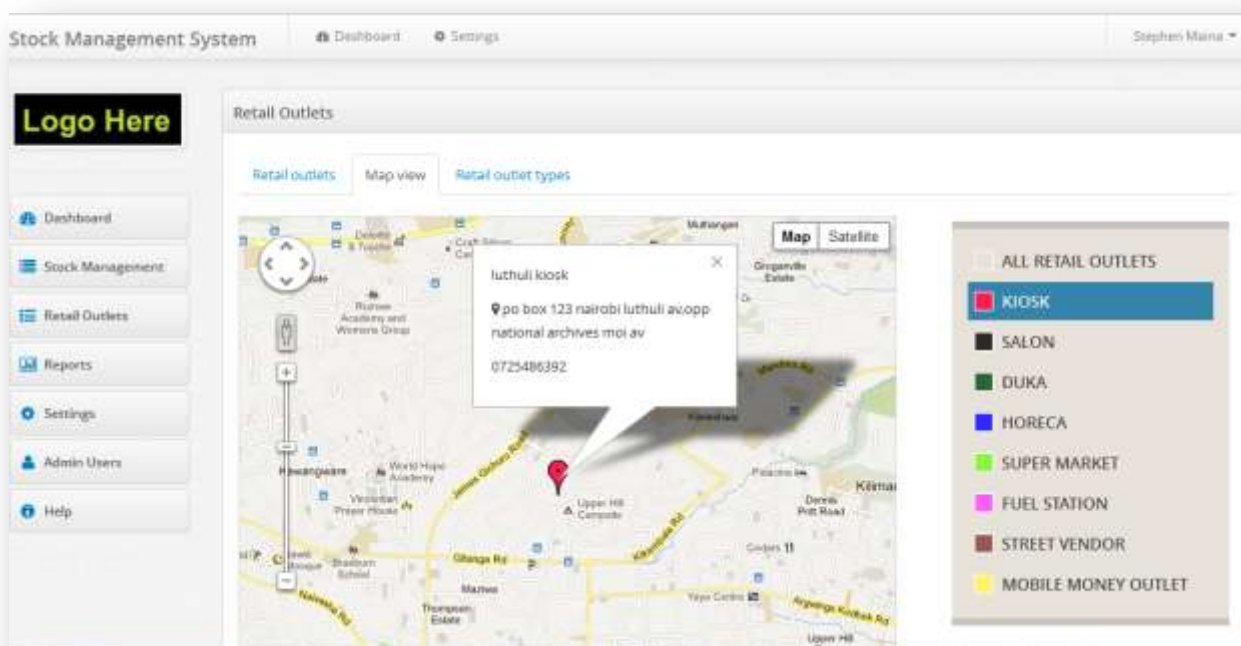


Figure 40: location details of sales report

Conclusion

We believe that these and more custom applications we have made will assure you of our ability to develop and maintain your custom mobile, web or desktop software system. We hope to meet and exceed your expectations for a tailor made solution. Feel free to contact any of the references below for assurance of our capacity to deliver.

Appendix A

References

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