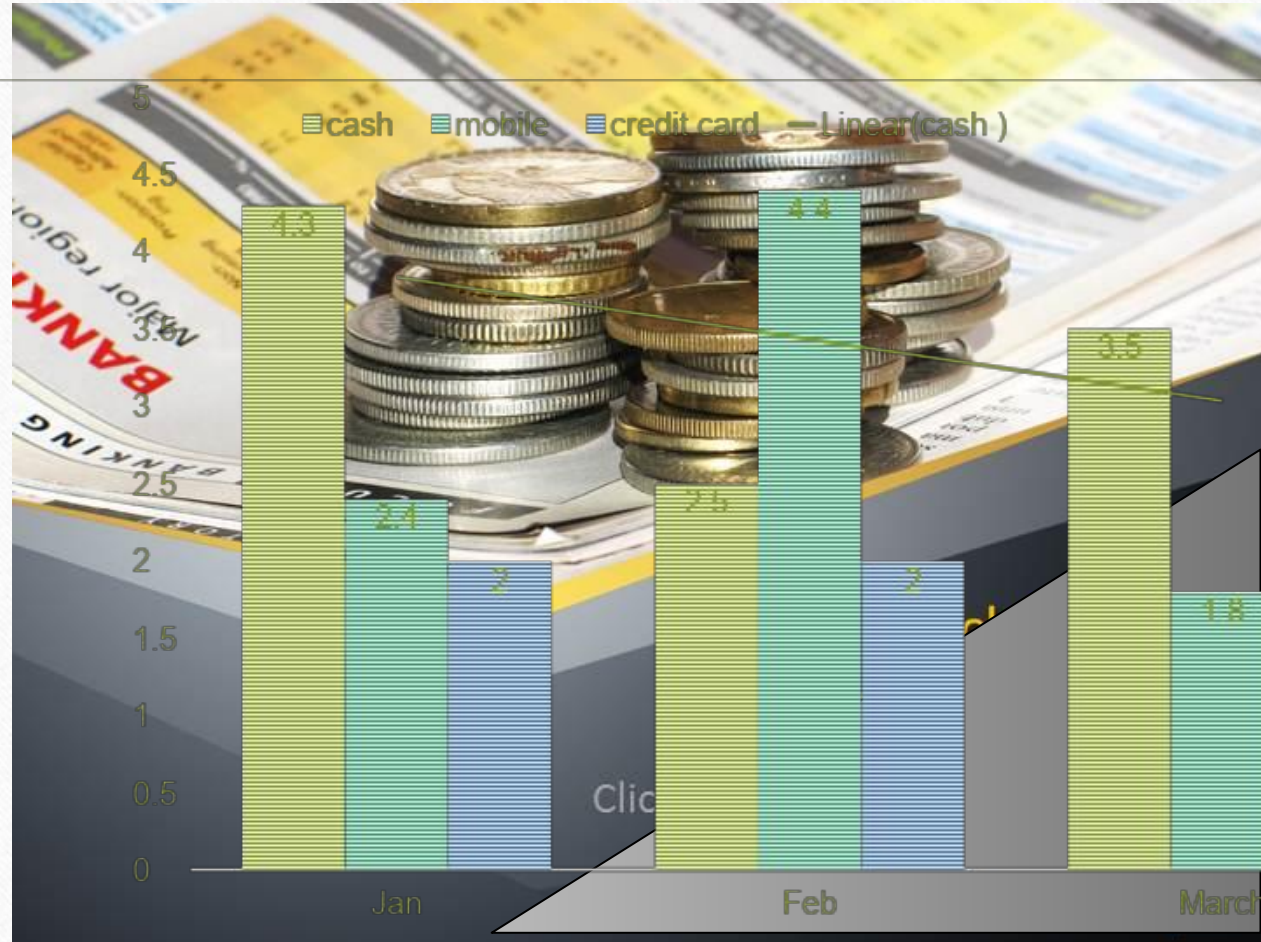




KUZIMBA SERVICES GROUP

Presents



CASH MANAGEMENT APPLICATION (CMS)

Sept 2020

Back Ground: Cash Management

- ❖ Cash Management is defined as the collection, handling, control and investment of the organizational cash and cash equivalents to ensure, optimum utilization of the firm's/business liquid resources.
- ❖ Money is a lifeline of any business, hence it is essential to maintain a sound cash flow position.
- ❖ The money market has evolved over the time, from physical paper money moving from one hand to another, to online transfers to trading in other forms of money like Bitcoins, mobile money, airtel money, ATM cards etc.

Problem Statement

- The biggest goal of good cash flow management is to reduce or eliminate any surprises when meeting cash requirements. Good cash management influences efficiency of operations and reduces overall cost of doing business.
- In Uganda today, the reception of these different forms of cash management has not been on the digital platform. Daily sales and tracking of money has been more less writing in small exercise books or papers which are eventually disposed off both knowingly and unknowingly by sometimes the business owners or even employees. Uncertainties such as theft, fires and natural disasters also contribute to the loss of financial records.
- That is why the kuzimba services group is coming up with a cash management system targeting the fast growing business community.

Benefits

Manage Cash Balances

Convenience
(Phone/Laptop)



Growth

Financial Security

Avoid Bankruptcy

Benefits in Detail

- The application will help manage the cash balances of an enterprise/business in such a way as to maximize the availability of cash not invested in fixed assets or inventories and to do so in such a way as to avoid the risk of insolvency.
- Manage finances from the convenience of a phone, computer or tab.
- Growth planning: with easy access to the cash flow, one is able to plan for their expansions, restocking and also monitor their stock without physically being at the business premises.
- Financial Security: The financial records of the cash flow shall be securely stored in a password-protected online database to keep the data safe from loss, destruction or unauthorized access.
- Preventing Bankruptcy: With knowledge of the cash flow, you can know when to recapitalize your business and avoid unnecessary expenditures.

“The Woman Aspect”

- We cannot completely rule out the role of men in society in provision of security and doing the hard task jobs, However opportunities to include the woman can be availed in various ways by creation of leadership roles, project management roles, cash management roles as per say, women can be the face for any business firm/enterprise.
- Take for example, besides the saloons, boutiques, massage parlours and the like; the latest building/construction material store managers in Uganda are women working amidst a group of male engineers.
- Over 70% of graduates from Makerere University-Uganda doing finance management and business administration are women . #FinTechs make way for women to join the Tech World.

Level One Principles

Level One Principle	Description
❖ Cash in-Cash out interoperability (mojaloop)	Gives distinctive classification between sales, expenditures, and cash balances.
❖ User friendly design	Its Interactive and one can view information online
❖ Pricing Transparency	Subscription fee made clear per year and per month for two different pricing plans (Self-Managed/Operator Managed)
❖ Progressive Functional Features	From Web Application to Mobile version, eradication of manual data entry, Message alerts
❖ Success Notifications	Graphical Output/PDF Output
❖ Security	Password Protection/password hashing/SSL Certificate
❖ Government Support	Registration of Cash Management System Product Name by URSB.

Minimum Viable Product

Phase One:

1. GUI
2. Authentication
3. Manual Entry of Transaction Data by System Operator into the System
4. Notifications of System Updates/Graphical Output/PDF Generation

Phase Two:

1. Road Map
2. Cash in/Cash out interoperability (APIs)
3. Hosting/Testing

Cost Analysis

General Expected charges

Account Opening/Registration (this includes custom domain name, database creation, hosting & security, monitoring cash flow and notifications).

Estimated subscription fee

- | | |
|--|---------------|
| ● 150,000 Ugx/month with a free trial for 7 days (Self Managed System) | 1.2m Ugx/year |
| ● 300,000 Ugx/month (Operator Managed System) | 2.4m Ugx/year |

Estimated Expenditure of \$3000

- Marketing Product & Branding \$1000
- Transportation & Logistics \$300
- Innovation Lab Space, Internet Connectivity, Software and Training Material \$1200+
- Creation of Mobile Version for personal business/Inclusion of other secure system features \$500

Anticipated Risks & Solutions

Risks/Challenges

- Hacking by external source & False data entry by operator
- The Account Data Trust Issue
- Poor/No Internet Connectivity

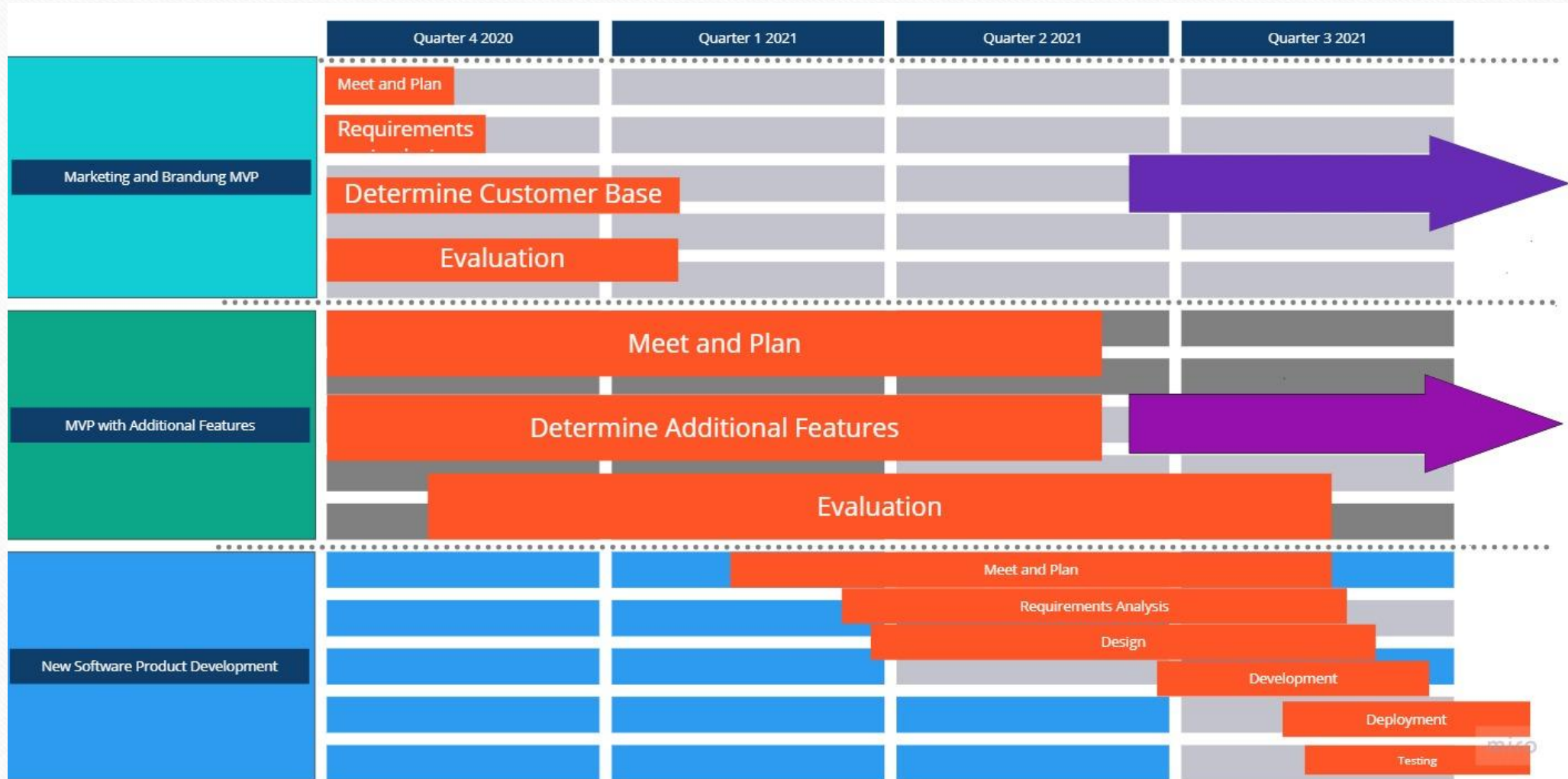
Solutions

- Password Protected System/password hashing/SSL and security certificates provided by web host
- System Updates done by operator once in a month
- Ensure Viable/correct data entered into the system. An Option to edit transactions made manually.

Executive Summary

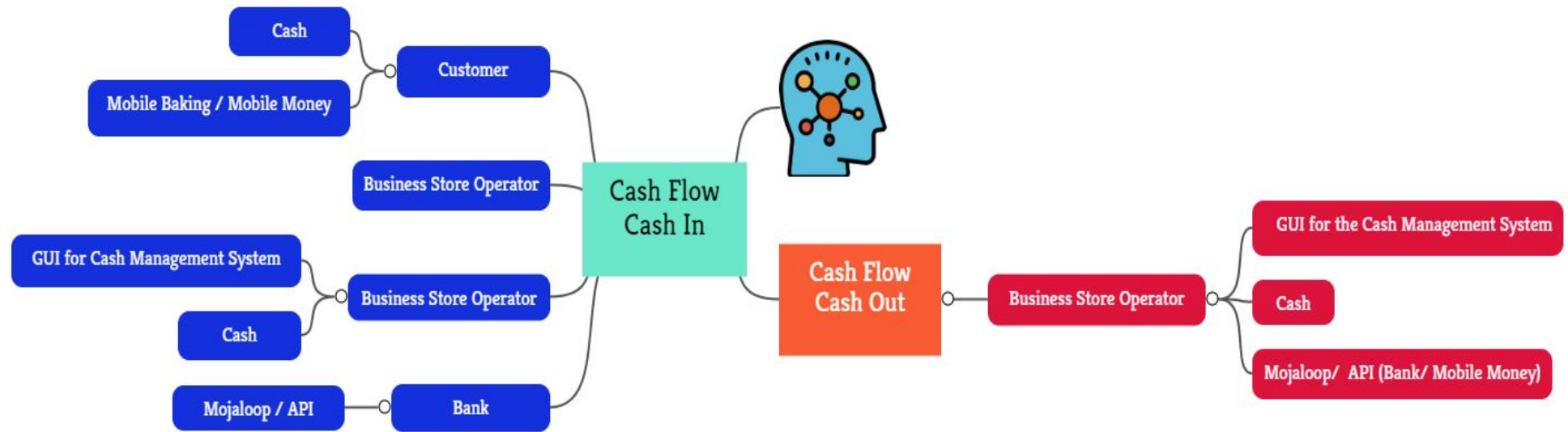
Problem Statement	Monitoring Cash Records in Books/Paperwork is totally Unreliable
Business Case	Cash Management System-Web Application
Target Market	Fast Growing /Medium Earning Businesses
Minimum Viable Product/Level One Principles	
❖ Cash in-Cash out interoperability	Gives distinctive classification between sales, expenditures, and cash balances.
❖ GUI-User friendly design	Its Interactive and operator can view information online
❖ Pricing Transparency	Subscription fee for two different pricing plans (Self-Managed (150k/mth)/Operator Managed(300k/mth))
❖ Progressive Functional Features	Notifications, Mobile Version, Security/Authenticity, Gov't Support -Registration URSB, Automatic Data Updates
Benefits	Manage Cash Balances, Convenience, Growth and Development, Security, No Bankruptcy
Tools	Java jsp, MySql Database, Mojaloop, mobile money API's, html, w3css, javascript
Risks/Solutions	Hacking (Password), Trust Issue/False Data Entry (Data to Be reviewed by both actors,), No Internet (System Updates are made once a month)

Product Road Map

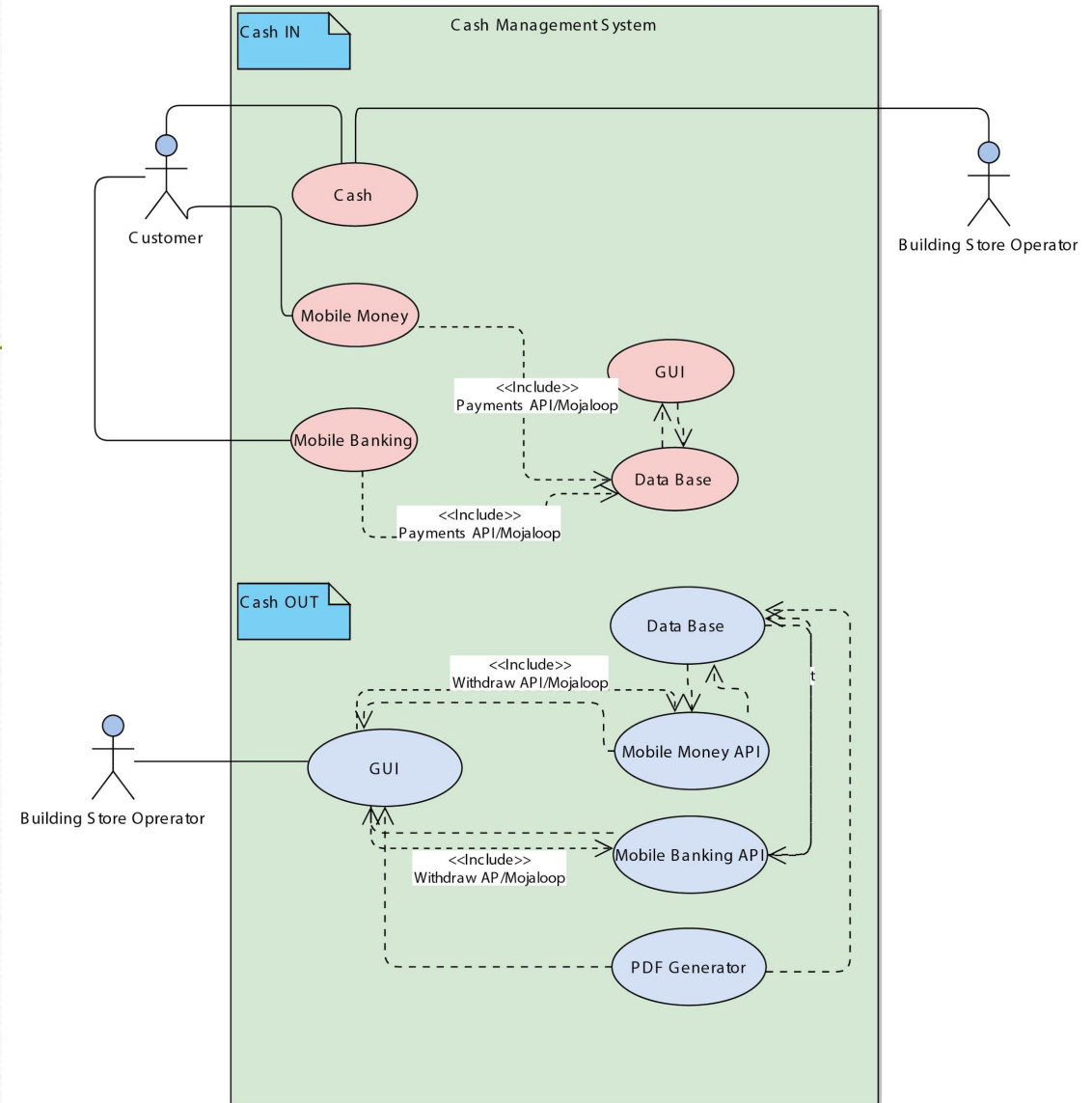


CMS Flow Diagrams

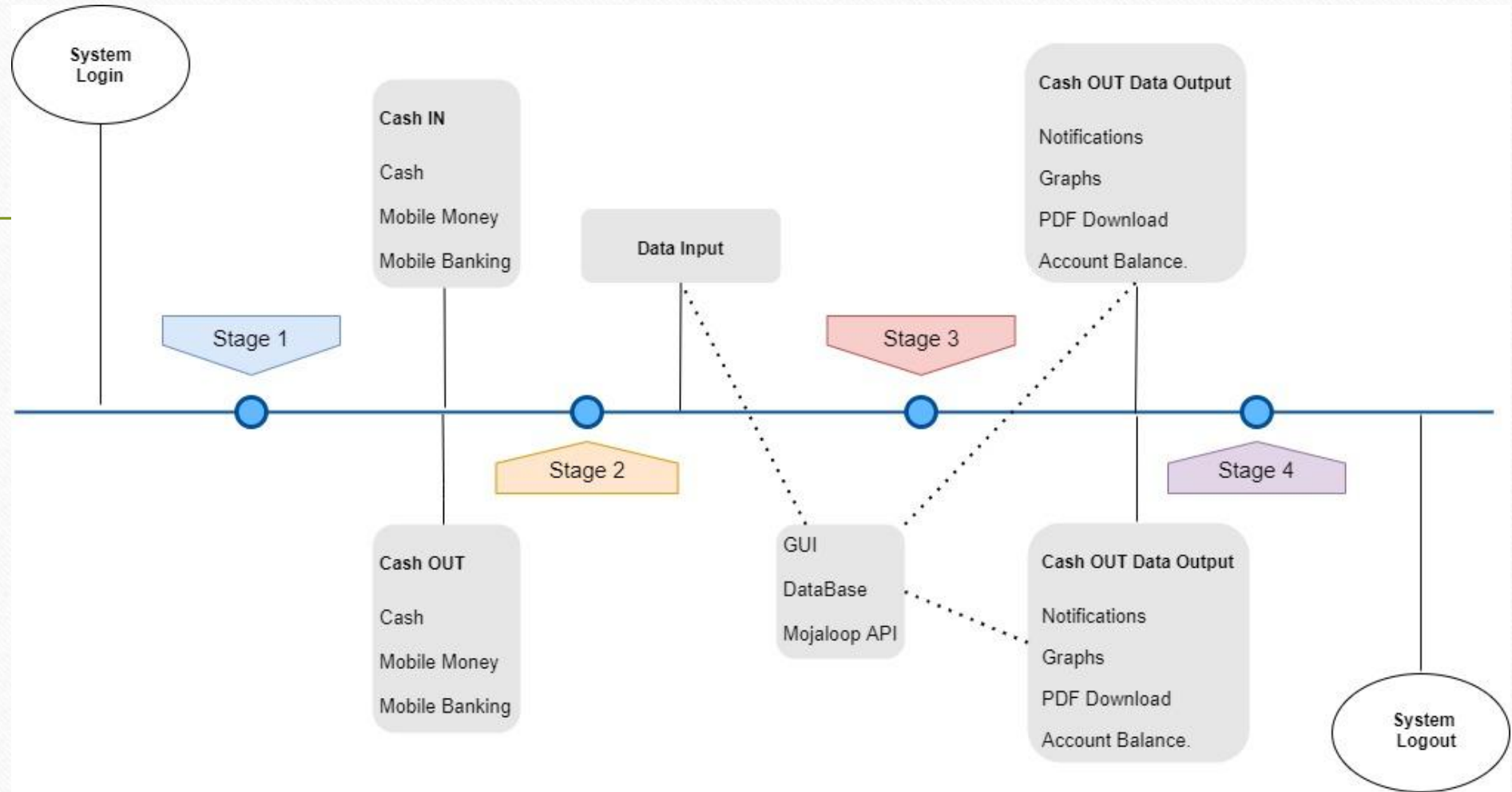
MIND MAP



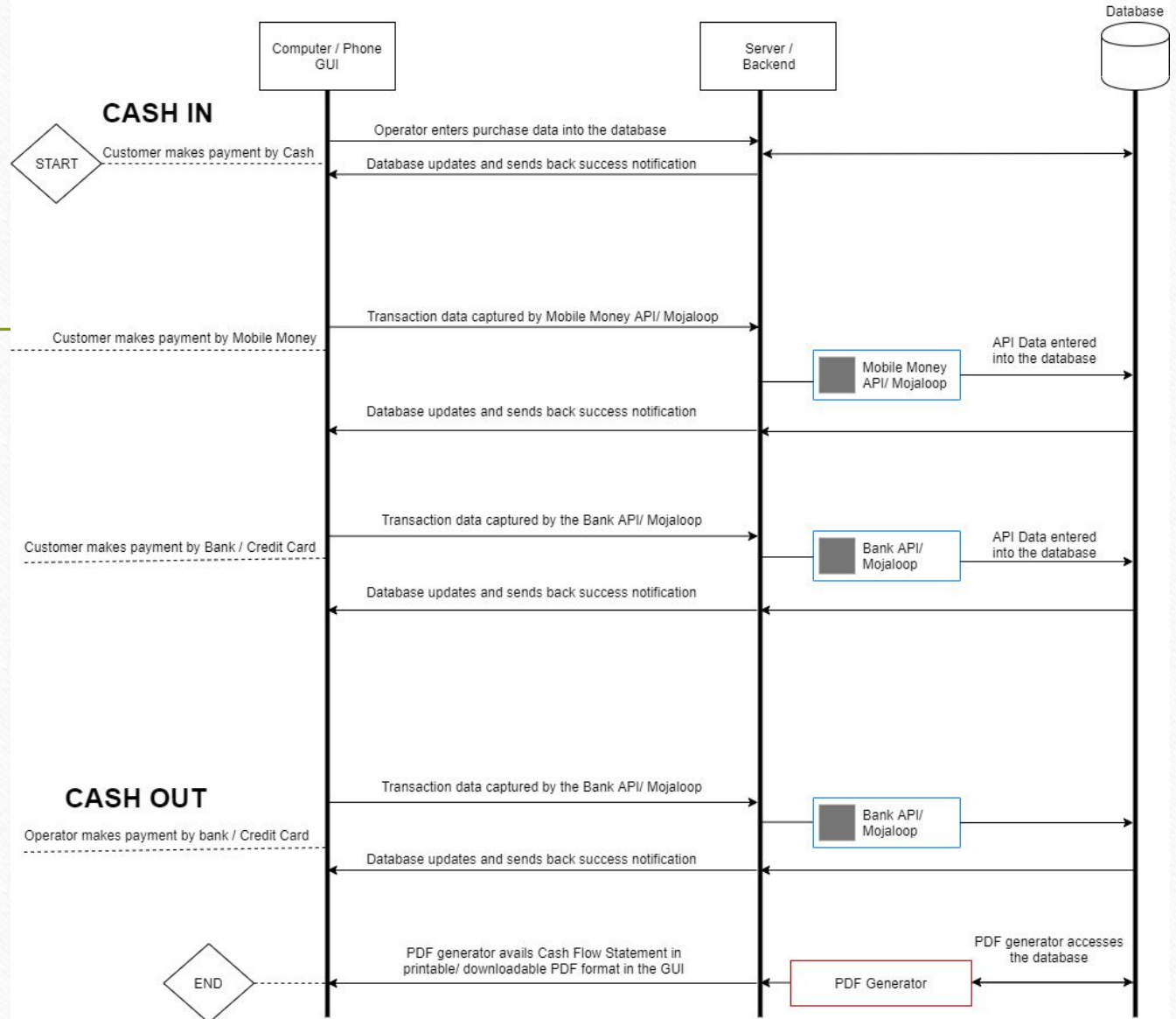
USE CASE DIAGRAM



SYSTEM FLOW

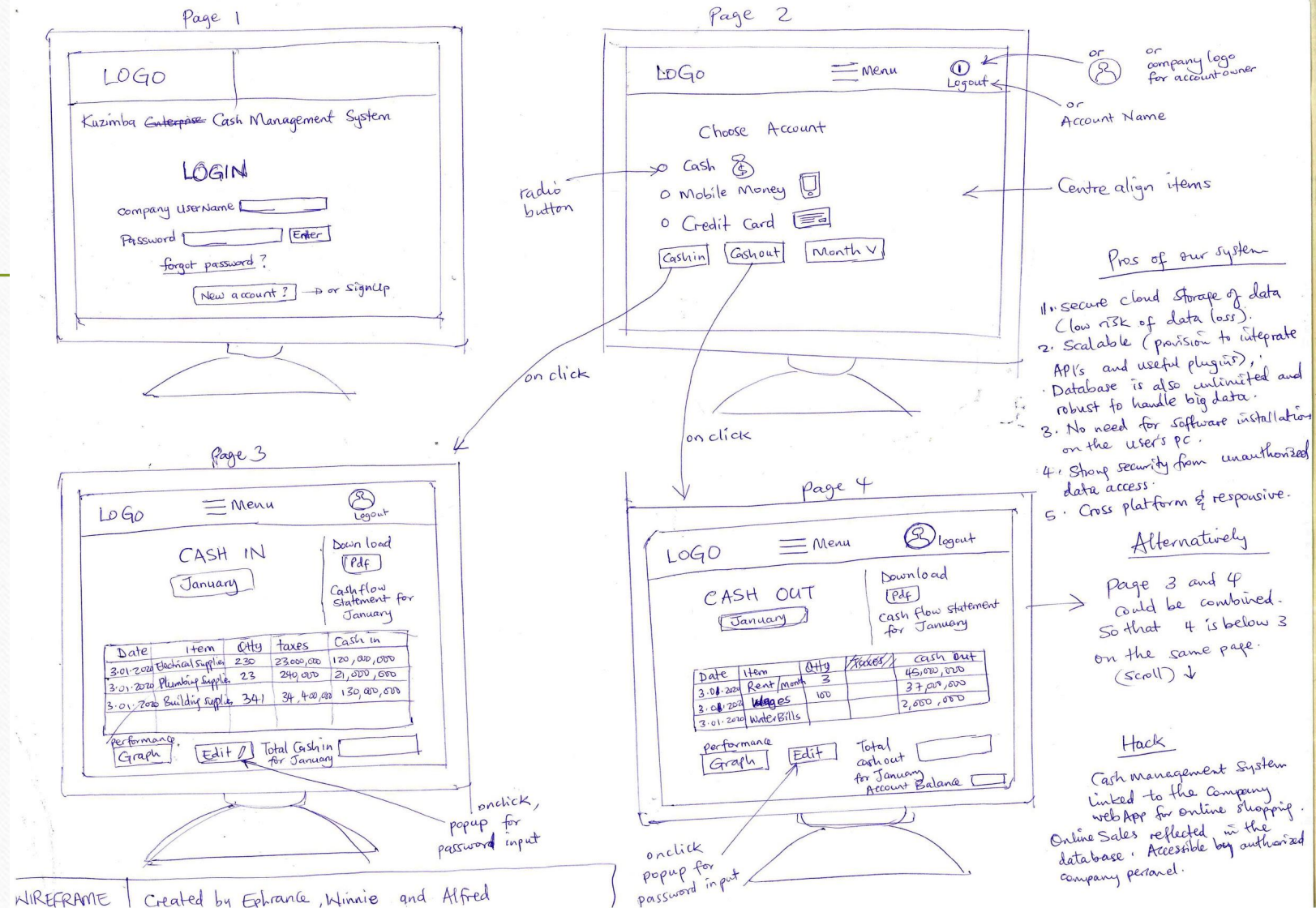


SEQUENCE DIAGRAM



CMS Prototype

Wire Frame





Created by Ephrance, Winnie and Alfred

MOCKUP

PAGE 1

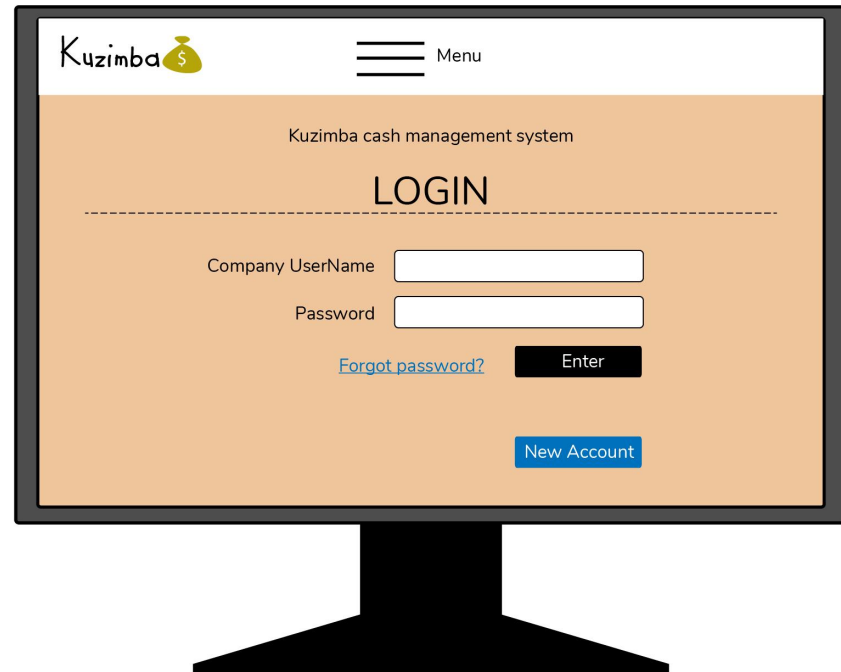


Kuzimba Cash Management System

Created by Ephrance, Winnie and Alfred

MOCKUP

PAGE 2



Kuzimba Cash Management System



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MOCKUP

PAGE 3

Kuzimba

Menu

Logout

CHOOSE ACCOUNT

Cash

Mobile Money

Credit Card

January

Cash In

Cash Out

Kuzimba Cash Management System

MOCKUP

PAGE 4

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Kuzimba

Menu

Logout

CASH IN

January

Download Pdf

CashFlow Statement for January

Chosen Account: CASH

NEW PURCHASE

Date	Item	Taxes	Cash In
3.09.2020	Electrical supplies	300,000	2,000,000
3.09.2020	Plumbing supplies	240,000	500,000

Enter

GRAPH FOR CASH IN

1B

250M

48M

Edit

Cash Out

Kuzimba Cash Management System



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MOCKUP

PAGE 5

Kuzimba

Menu

Logout

CASH IN

January

New Purchase

Download Pdf

CashFlow Statement for January

Chosen Account: CASH

STATEMENT

3.09.2020	Electrical supplies	230	23,000,000	120,000,000
3.09.2020	Plumbing supplies	23	240,000	21,000,000
3.09.2020	Building supplies	341	34,400,000	130,000,000
3.09.2020	Transportation supplies	22	22	16,000,000

GRAPH FOR CASH IN

1B

250M

48M

Total cash in for January
UGX 287,000,000

Edit

Cash Out

Kuzimba Cash Management System

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MOCKUP

PAGE 6

Kuzimba

Menu

Logout

CASH IN

January

New Purchase

Statement

Chosen Account: CASH

Operation Successful!

You have deposited UgX 2,500,000 into your cash account.
Your total account balance is now UgX 289,500,000


Edit

Cash Out


Kuzimba Cash Management System

MOCKUP

PAGE 7



Menu


[Logout](#)

CASH OUT

January

Chosen Account: **CASH**

WITHDRAW

Download Pdf

CashFlow Statement for January

Date	Item	Taxes	Cash In
3.09.2020	Electrical supplies	300,000	2,000,000
3.09.2020	Plumbing supplies	240,000	500,000

Withdraw

Statement

Cash Balance

UGX 200,000,000


Edit

Cash In


Kuzimba Cash Management System

MOCKUP

PAGE 8



Menu


[Logout](#)

CASH OUT

January

Chosen Account: **CASH**

STATEMENT


Download Pdf

CashFlow Statement for January

New Withdraw

Date	Item	Qty	Cash Out
3.09.2020	Rent	3	45,000,000
3.09.2020	Electricity bills		3,000,000
3.09.2020	Water bills		2,000,000
3.09.2020	Salary / Wages	100	37,000,000

GRAPH FOR CASH OUT



Total cash Out

Cash Balance

Edit

Cash In

You have withdrawn 270,000 UGX from your Cash Account

Your Cash account balance is 28,000,000 UGX

Kuzimba Cash Management System

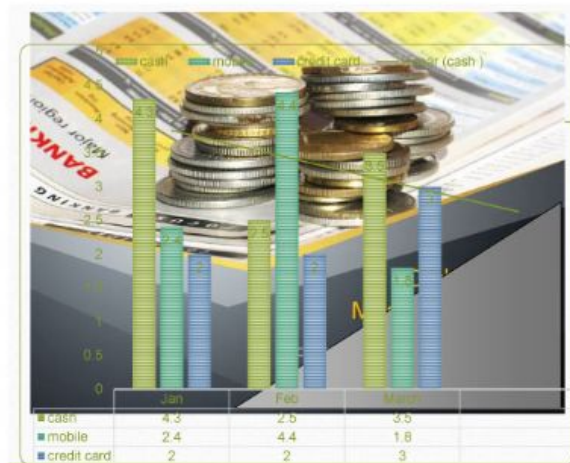
Minimum Viable Product

Front End



KUZIMBA CASH MANAGEMENT SYSTEM

A better way to manage your business cash flow



LOGIN

Company UserName

Password

[forgot password?](#)

ENTER

[New Account?](#)

Created by Ephrance, Winnie & Alfred



KUZIMBA CASH MANAGEMENT SYSTEM

A better way to manage your business cash flow



CHOOSE ACCOUNT

Cash ☐

Mobile Money ☐

Credit Card ☐

Choose Month

☐ Cash In ☐ Cash Out

Enter

[Cash Out](#)[Log Out](#)

KUZIMBA CASH MANAGEMENT SYSTEM

A better way to manage your business cash flow

CASH IN

For the month of January

Another Month




Choose

STATEMENT

New Purchase

Chosen Account: Cash

Cash Flow Statement for January

Download Pdf 

Date	Item	Quantity	Tax	Cash In
	2020-Sept-22	1200		234000000
2	2020-Sept-22	3		21000000

4	2020-Sept-22	14		1400000
5	2020-Sept-22	28		2800000
6	2020-Sept-22	1202		23200000
null	null	null	null	null

Total Cash In For January

Total Cash In :282400000

Edit



Cash Out

Cash-In Performance Graph

For the month of January

Load Graph

[Cash Out](#)[Log Out](#)

KUZIMBA CASH MANAGEMENT SYSTEM

A better way to manage your business cash flow

CASH IN


For the month of January

January



Choose

Cash Flow Statement for January

Download Pdf 

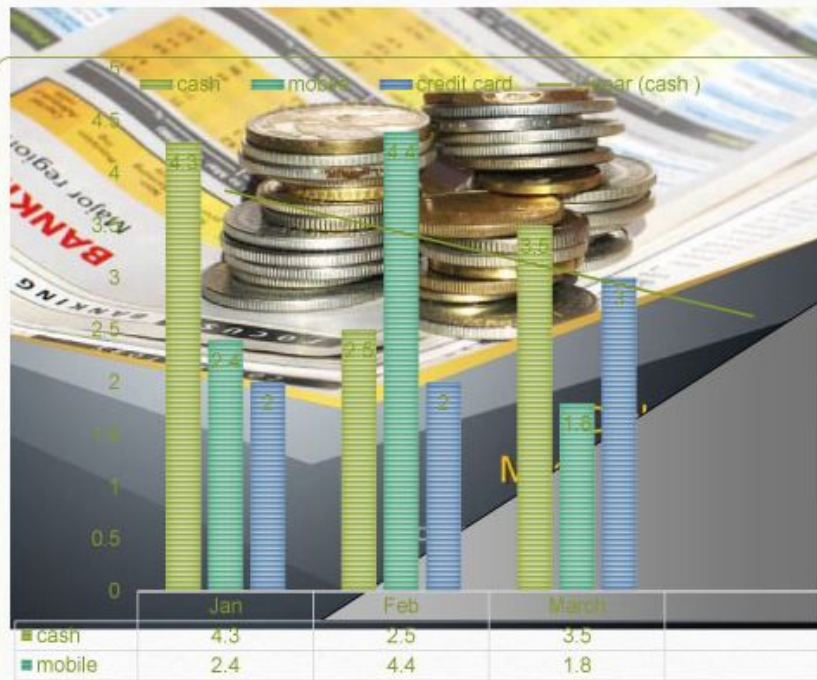
DATA ENTRY FOR NEW PURCHASE

Id	Date	Item	Quantity	Tax	Cash In
<input type="text"/>	<input type="text" value="2020-Sept-22"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="18"/>	<input type="text"/>



KUZIMBA CASH MANAGEMENT SYSTEM

A better way to manage your business cash flow



PAY FOR PRODUCTS

SUCCESS !

You have sent 45000 EURO to 0773913902

New Payment



Minimum Viable Product

Back End

```
POST http://kuzimba.hipipo.mojaloop-hackathon.io:4401/transfers

Params Authorization Headers (8) Body Pre-request Script Tests Settings
● none ● form-data ● x-www-form-urlencoded ● raw ● binary ● GraphQL JSON ▼

1 {
2   "from": {
3     "displayName": "PayerFirst PayerLast",
4     "idType": "MSISDN",
5     "idValue": "978555555555"
6   },
7   "to": {
8     "idType": "MSISDN",
9     "idValue": "498941207269"
10  },
11  "amountType": "SEND",
12  "currency": "EUR",
13  "amount": "100",
14  "transactionType": "TRANSFER",
15  "initiatorType": "CONSUMER",
16  "note": "test payment",
17  "homeTransactionId": "{{ $guid }}"
}
```

```
GENERATE CODE SNIPPETS

Filter languages...

C - libcurl
C# - RestSharp
cURL
Go - Native
HTTP
Java - OkHttp
Java - Unirest
JavaScript - Fetch
JavaScript - JQuery
JavaScript - XHR
Nodejs - Axios

Generated code for Java - OkHttp

1 OkHttpClient client = new OkHttpClient().newBuilder()
2   .build();
3   MediaType mediaType = MediaType.parse("application/json");
4   RequestBody body = RequestBody.create(mediaType, "{\n  \"from\": {\n    \"displayName\": \"PayerFirst PayerLast\",\n    \"idType\": \"MSISDN\",\n    \"idValue\": \"978555555555\"\n  },\n  \"to\": {\n    \"idType\": \"MSISDN\",\n    \"idValue\": \"498941207269\"\n  },\n  \"amountType\": \"SEND\",\n  \"currency\": \"EUR\",\n  \"amount\": \"100\",\n  \"transactionType\": \"TRANSFER\",\n  \"initiatorType\": \"CONSUMER\",\n  \"note\": \"test payment\",\n  \"homeTransactionId\": \"{{ $guid }}\"\n}");
5   Request request = new Request.Builder()
6     .url("http://kuzimba.hipipo.mojaloop-hackathon.io:4401/transfers")
7     .method("POST", body)
8     .addHeader("Content-Type", "application/json")
9     .build();
10  Response response = client.newCall(request).execute();
```

System Work Plan

Goal 1: Data collection and planning						
Key Action Steps		Timeline	Expected Outcome	Tools	Person Responsible	Comments
1. Business case Development 2. Problem statement 3. Work plan		Day One	Business case, Problem Statement	Internet, Bankers, Adobe illustrator, MS PowerPoint, MS word	All Project Members	Done
Goal 2: Design and Development of the Graphical User Interface and Flow Diagrams						
Key Action Steps		Timeline	Expected Outcome	Tools	Person/Area Responsible	Comments
1. Mind Map 2. Use case Diagram 3. Flow Diagram 4. Sequence Diagram 5. Wireframe/Graphical User Interface (GUI)		Day One Day Two	GUI & Prototype	Adobe Photoshop, Adobe Illustrator, Mind tool, Diagram Editor, Justinmind tool, MS Powerpoint/PDF	All Project Members	Done
Goal 3: Database Development and Backend Programming of the system						
Key Action Steps		Timeline	Expected Outcome	Tools	Person/Area Responsible	Comments
1. Minimum Viable Product Development 2. Database Development 3. Graphical Output Integration 4. Extra Functionality Integration (Success Notification, Cash Flow Statement in PDF etc.)		Day Three Day Four	Minimum Viable Product	IDE: Netbeans, Heidi SQL, MySQL Database, Java (JSP), Javascript, HTML, W3 CSS/CSS, Canvasj, Mojaloop	All Project Members	In Progress
Goal 4: Testing, Troubleshooting and Presentation of the System						
Key Action Steps		Timeline	Expected Outcome	Tools	Person/Area Responsible	Comments
1. Testing 2. Troubleshooting 3. Presentation		Day Five	Error Free Prototype	Diverse Digital Platforms Microsoft Powerpoint	All Project Members	In Progress

Meet the Team



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ROLE	Team Leader	Team Member	Team Member

Kuzimba 

THANK YOU
&
God Bless



mojaloop
foundation



MODUSBOX

CROSSLAKE



INCLUDE
EVERYONE