



# **KUZIMBA SERVICES GROUP**

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Presents



# CASH MANAGEMENT SYSTEM (CMS)

Sept 2020

## Back Ground: Cash Management

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- ❖ 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

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- 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

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- 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.
- Businesses with good cash flow records easily acquire loans from banks.

## “The Woman Aspect”

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- We cannot completely rule out the role of men in society in providing security and doing the hard task job. 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 we applied	Description
❖ Cash in-Cash out interoperability (mojaloop)	Gives distinctive classification between sales, expenditures, and modes of payment.
❖ (GUI) User friendly design	Its Interactive and one can view information online from multiple devices
❖ Pricing Transparency	Subscription fee made clear per year and per month for two different pricing plans (Full fledged system/Operator Managed)
❖ Progressive Functional Features	From Web Application to Mobile version, eradication of manual data entry, Message alerts
❖ Success Notifications	GUI Notification/PDF Output
❖ Security	Password Protection/password hashing/SSL Certificate
❖ Government Support	Registration of Cash Management System Product Name by URSB.



# Minimum Viable Product

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## **Phase One:**

1. Road Map
2. GUI, 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. Automatic Entry of Transaction Data by System Operator into the System
2. Cash in/Cash out interoperability (APIs)
3. Hosting/Testing/Product launch

# Cost Analysis

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## General Expected Charges

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

## Estimated Subscription Fee

- Business store Operator Managed System      free trial for 7 days      150,000 Ugx/month  
Special Offer: 1.2m Ugx/year
- Full fledged cash management system      free trial for 3 days      300,000 Ugx/month  
Special Offer: 2.4m Ugx/year

## Estimated Expenditure of \$3000 (Three Months)

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- 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/Challenges

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- Hacking by external source & False data entry by operator, Possible data loss
- The Account Data Trust Issue
- Theft (if pin is known)
- Poor/No Internet Connectivity

## Proposed Solutions

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- Password Protected System/password hashing/SSL and security certificates provided by web host , Duo secure database backup, Penetration (How strong is the firewall) & stress tests (money).
- System Updates done by operator
- Dual System Control for extra accountability and system monitoring
- Automatic Data Entry by the System. Excel Sheets Support. USSD Support

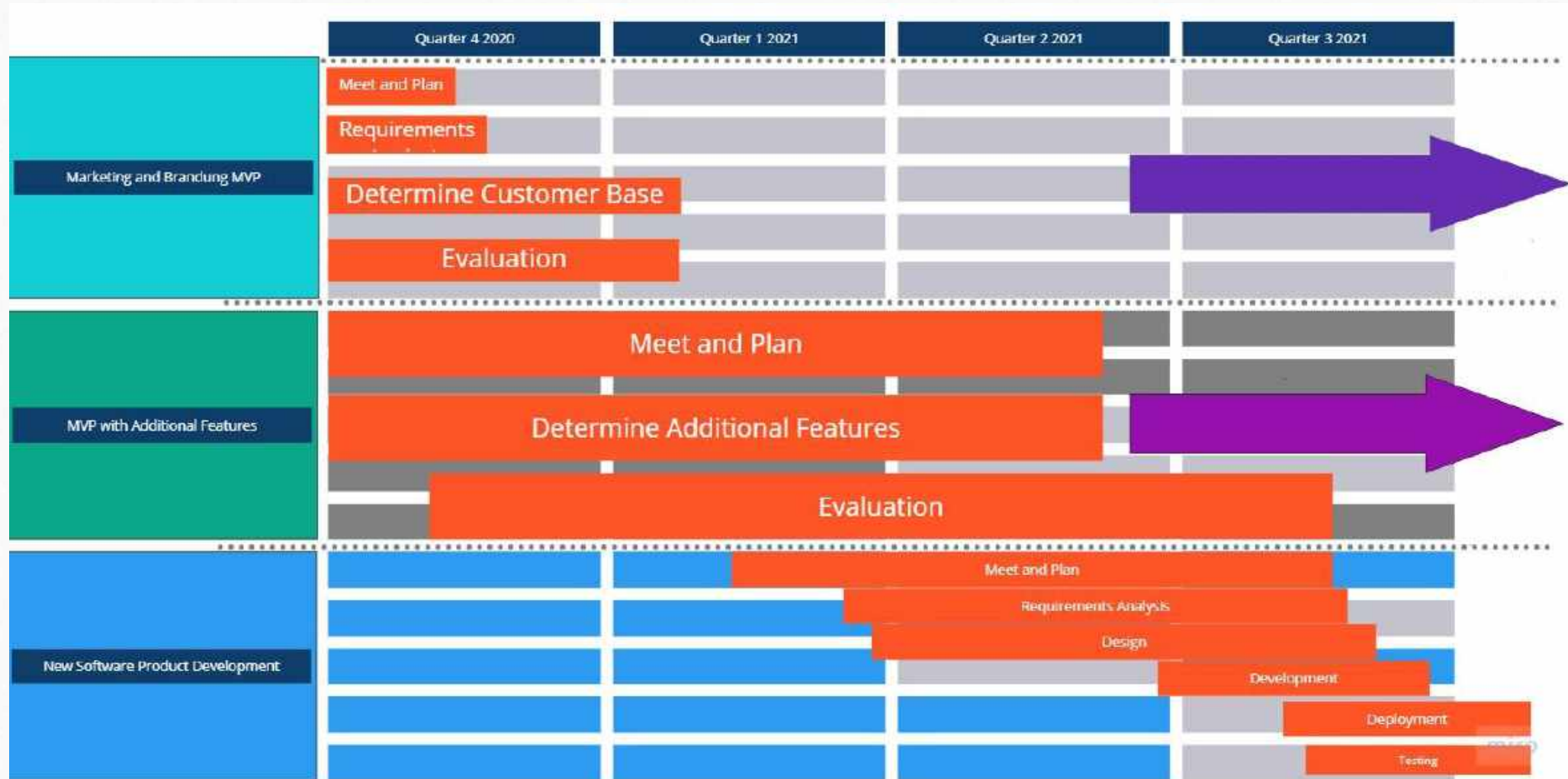




# Executive Summary

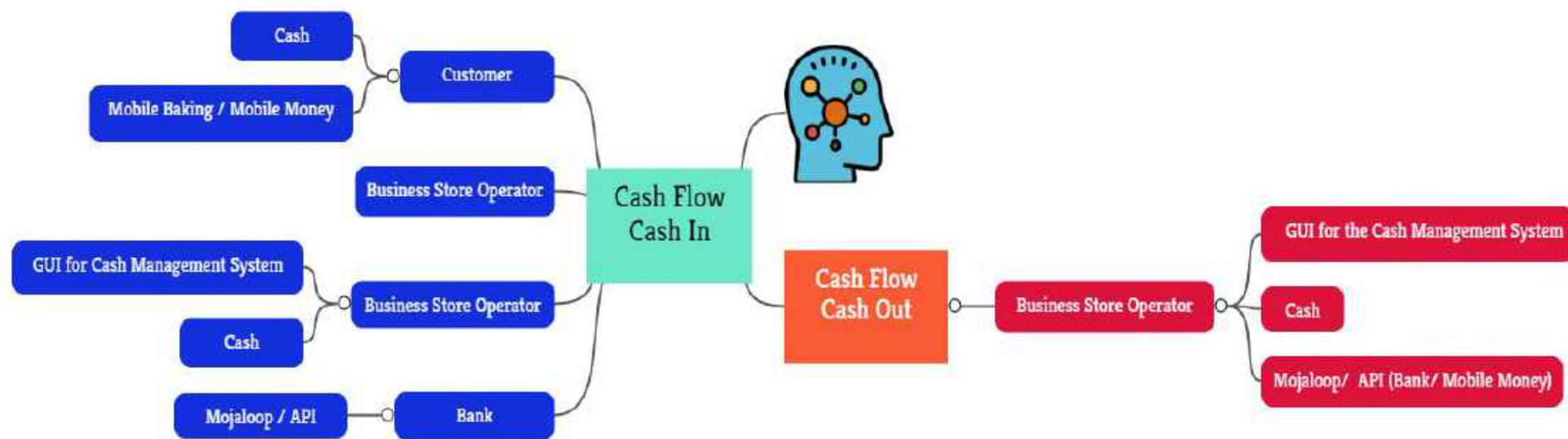
<b>Problem Statement</b>	Monitoring Cash Records in Books/Paperwork is totally Unreliable
<b>Business Case</b>	Cash Management System(CMS) -Web Application
<b>Target Market</b>	Fast Growing /Medium Earning Businesses
<b>Minimum Viable Product/Level One Principles</b>	
❖ Cash in-Cash out interoperability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

# Product Road Map

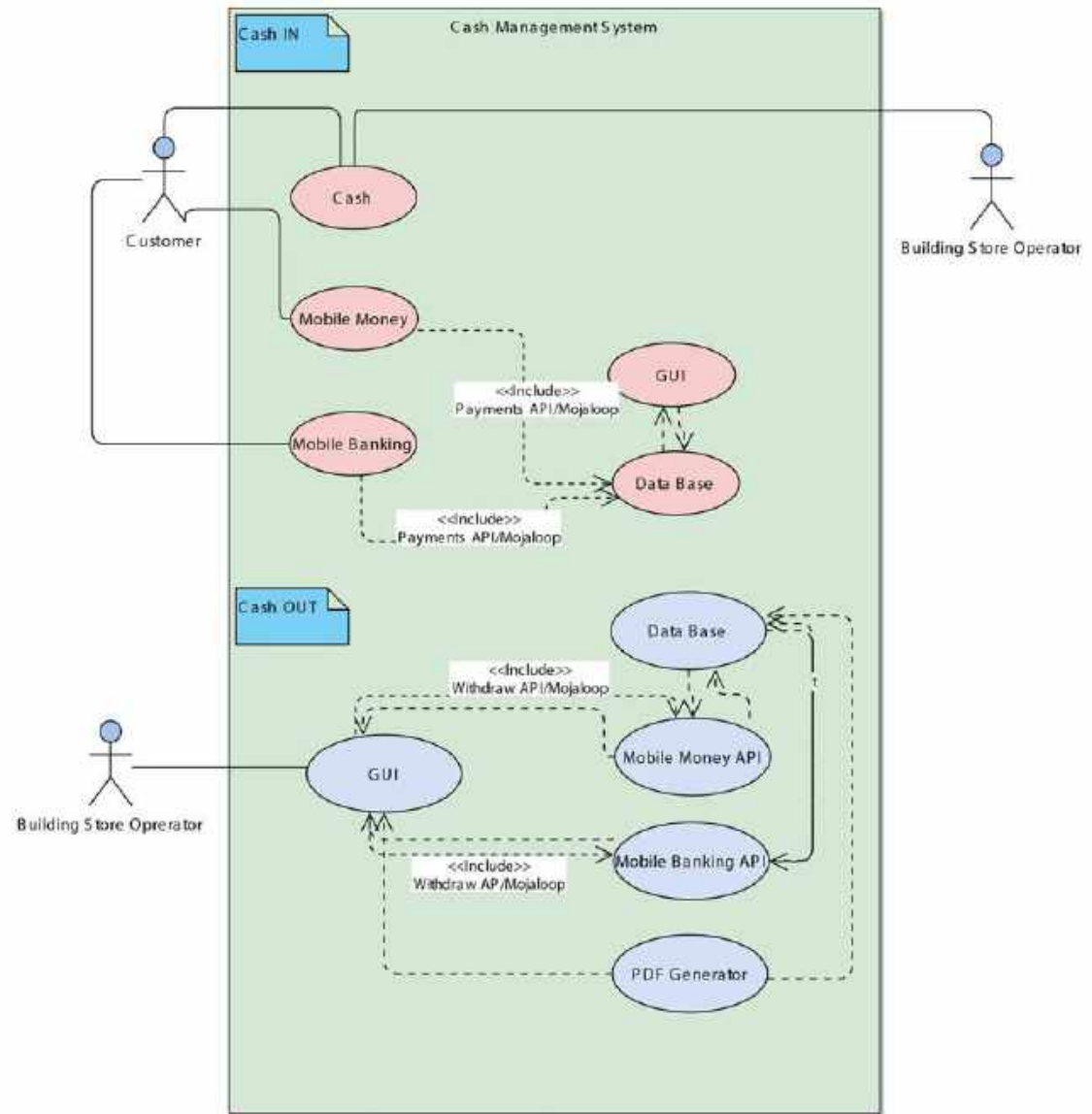


# CMS Flow Diagrams

# MIND MAP

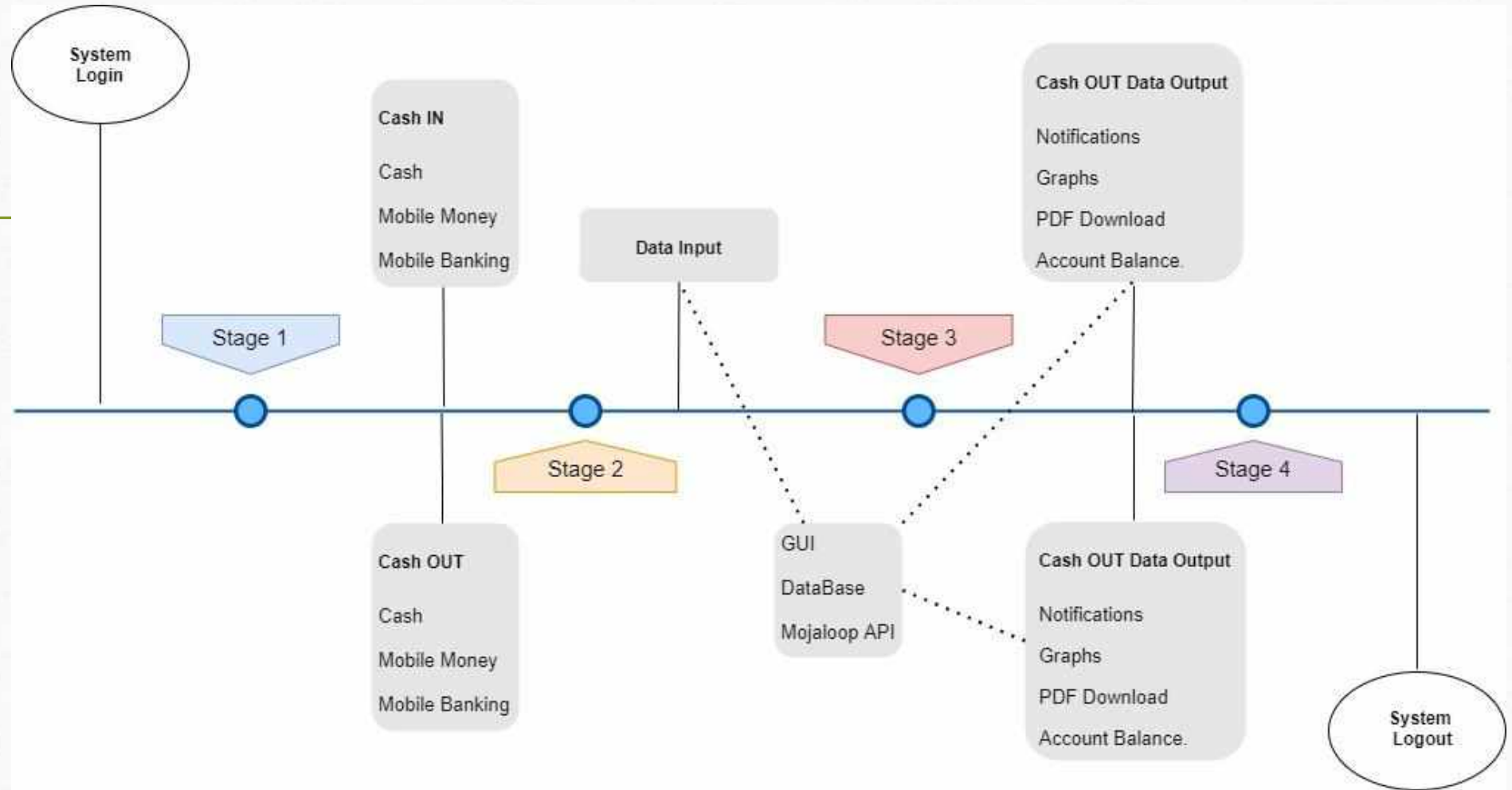


# USE CASE DIAGRAM

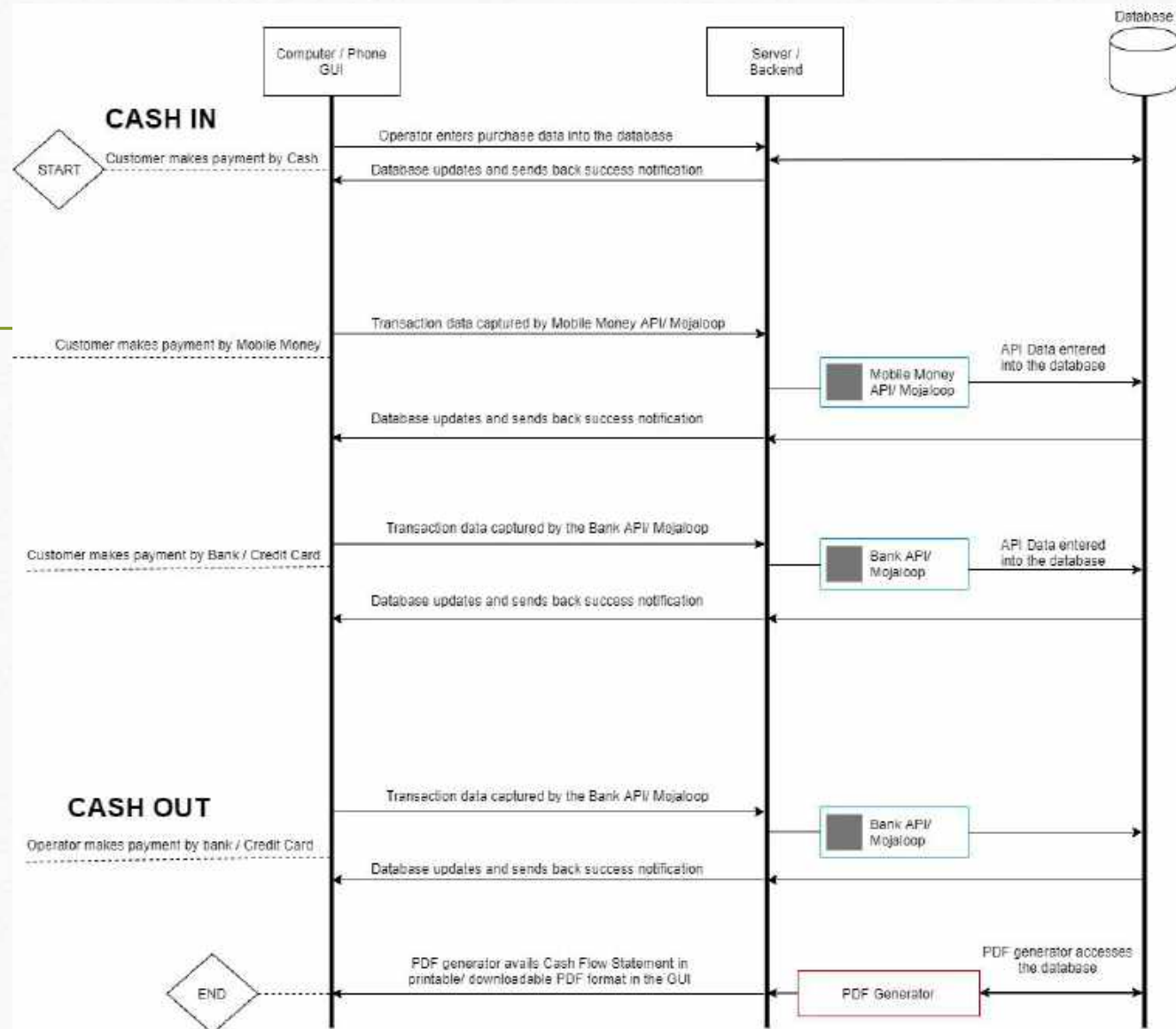




## SYSTEM FLOW

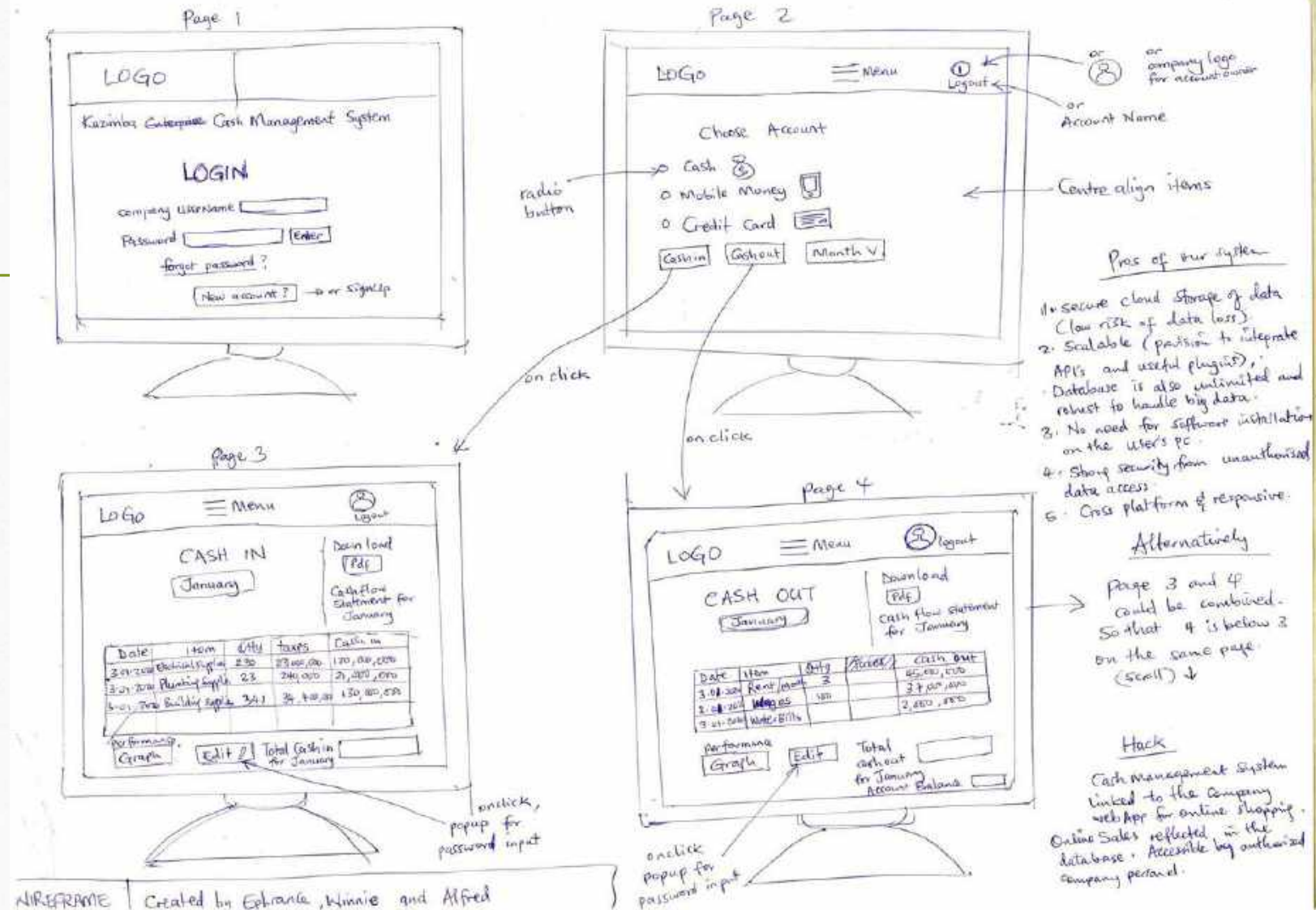


# SEQUENCE DIAGRAM



# CMS Prototype

# Wire Frame





MOCKUP

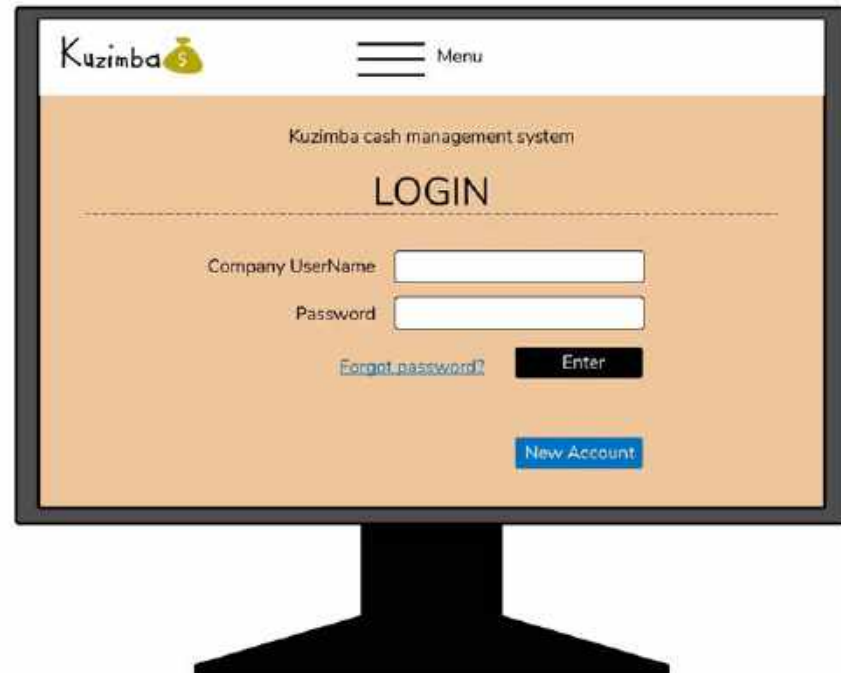
PAGE 1



Kuzimba Cash Management System

MOCKUP

PAGE 2




Kuzimba Cash Management System



MOCKUP

PAGE 3



Mockup of Page 3: CHOOSE ACCOUNT screen. The screen features a green background. At the top, there is a Kuzimba logo, a menu icon, and a logout button. The main heading is "CHOOSE ACCOUNT". Below it, there are three radio button options: "Cash", "Mobile Money", and "Credit Card". A dropdown menu is set to "January". At the bottom, there are two buttons: "Cash In" and "Cash Out".

Kuzimba Cash Management System

MOCKUP

PAGE 4



Mockup of Page 4: CASH IN screen. The screen features a light blue background. At the top, there is a Kuzimba logo, a menu icon, and a logout button. The main heading is "CASH IN". Below it, there is a dropdown menu set to "January" and a "Download Pdf" button. A "Chosen Account: CASH" label is present. Below this is a "NEW PURCHASE" section with a table. At the bottom, there is a "GRAPH FOR CASH IN" section with a bar chart and two buttons: "Edit" and "Cash Out".

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

GRAPH FOR CASH IN

Bar chart showing three bars with values 18, 250M, and 48M.

Kuzimba Cash Management System

MOCKUP

PAGE 5



Kuzimba Cash Management System

MOCKUP

PAGE 6



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	160,000

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

NEW WITHDRAW

Download Pdf

CashFlow Statement for January

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

You have withdrawn 270,000 UGX from your Cash Account. Your Cash account balance is 28,000,000 UGX

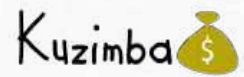
Edit

Cash In

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?](#)

[Payment API](#)

Created by Ephrance, Winnie & Alfred



## KUZIMBA CASH MANAGEMENT SYSTEM

A better way to manage your business cash flow



## CHOOSE ACCOUNT

Cash ☐

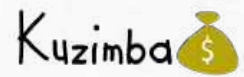
Mobile Money ☐

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

January



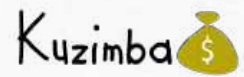
Choose

Cash Flow Statement for January

Download Pdf 

### DATA ENTRY FOR NEW PURCHASE

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

[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

Total Cash In :25490000

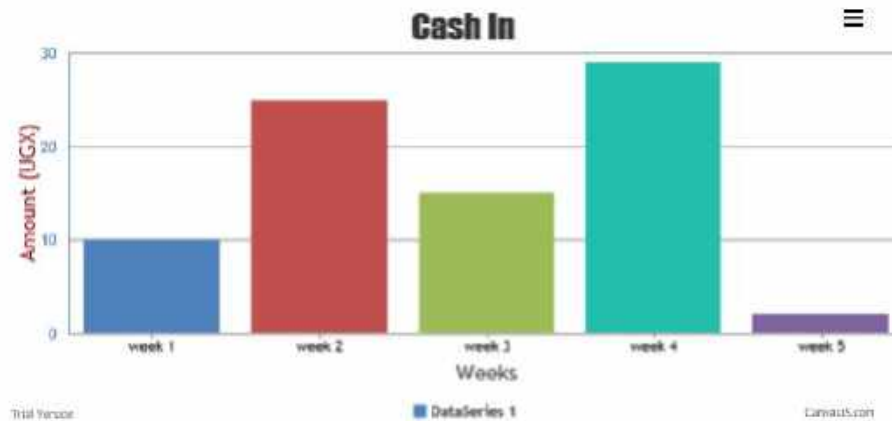
Edit

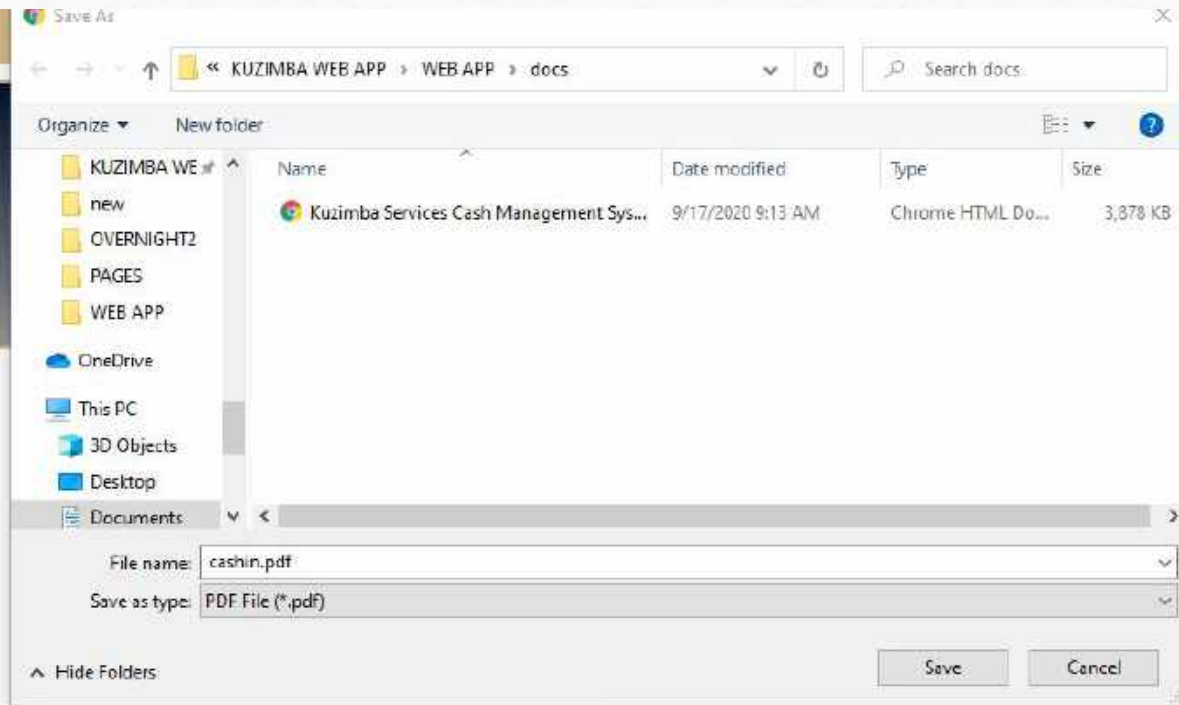
Cash Out

### Cash-In Performance Graph

For the month of January

Load Graph





Date	Item	Quantity	Tax	Cash In
2020-Sept-22	Sand	10		1200000



## KUZIMBA CASH MANAGEMENT SYSTEM

A better way to manage your business cash flow



Message from webpage



Please enter the amount

OK

## PAY FOR PRODUCTS

Amount

What product are you buying?

UGX



ENTER



## KUZIMBA CASH MANAGEMENT SYSTEM

A better way to manage your business cash flow



localhost needs some information

Script Prompt:

Please enter your MOBILE MONEY PIN

OK

Cancel

## PAY FOR PRODUCTS

Amount

63635

What product are you buying?

sugar

UGX



ENTER



## KUZIMBA CASH MANAGEMENT SYSTEM

A better way to manage your business cash flow



## PAY FOR PRODUCTS

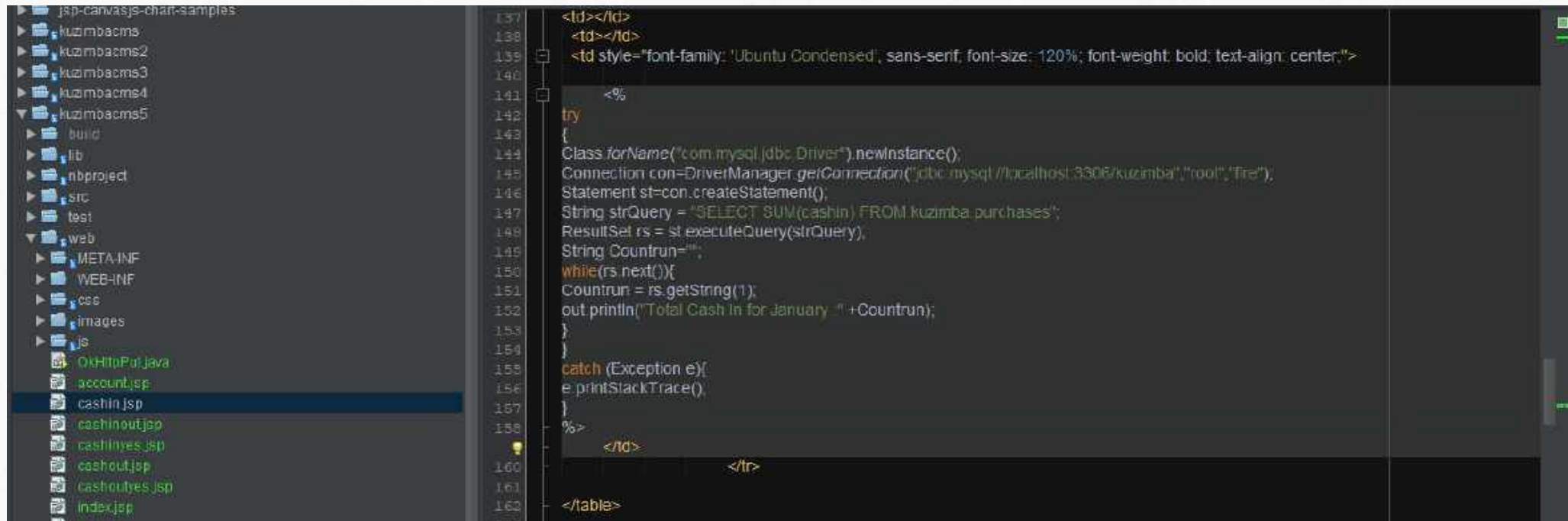
SUCCESS !

You have sent 45000 EURO to 0773913902

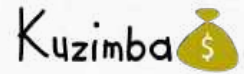
New Payment

# Minimum Viable Product

## Back End



```
137 </td></td>
138 </td></td>
139 <td style="font-family: 'Ubuntu Condensed', sans-serif, font-size: 120%; font-weight: bold; text-align: center;">
140
141 <%
142
143 try
144 {
145     Class.forName("com.mysql.jdbc.Driver").newInstance();
146     Connection con=DriverManager.getConnection("jdbc:mysql://localhost:3306/kuzimba","root","fire");
147     Statement st=con.createStatement();
148     String strQuery = "SELECT SUM(cashin) FROM kuzimba.purchases";
149     ResultSet rs = st.executeQuery(strQuery);
150     String Countrun="";
151     while(rs.next()){
152         Countrun = rs.getString(1);
153         out.println("Total Cash In for January " +Countrun);
154     }
155 }
156 catch (Exception e){
157     e.printStackTrace();
158 }
159 %>
160 </td>
161 </tr>
162 </table>
```



# Minimum Viable Product

Github Repository

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<https://github.com/Ephrance/Kuzimba-services>

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# System Work Plan



## Goal 1: Data collection and planning

Key Action Steps		Timeline	Expected Outcome	Tools	Person Responsible	Comments
1.	Business case Development	Day One	Business case, Problem Statement	Internet, Bankers, Adobe illustrator, MS PowerPoint, MS word	All Project Members	Done
2.	Problem statement					
3.	Work plan					

## 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	Day One	GUI & Prototype	Adobe Photoshop, Adobe Illustrator, Mind tool, Diagram Editor, Justinmind tool, MS Powerpoint/PDF	All Project Members	Done
2.	Use case Diagram	Day Two				
3.	Flow Diagram					
4.	Sequence Diagram					
5.	Wireframe/Graphical User Interface (GUI)					

### 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	Day Three	Minimum Viable Product	IDE: Netbeans, Heidi SQL, MySQL Database, Java (JSP), Javascript, HTML, W3 CSS/CSS, Canvasj, Mojaloop	All Project Members	70 Percent Done
2.	Database Development	Day Four				
3.	Graphical Output Integration					
4.	Extra Functionality Integration (Success Notification, Cash Flow Statement in PDF etc.)					

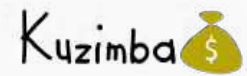
## Goal 4: Testing, Troubleshooting and Presentation of the System

Key Action Steps		Timeline	Expected Outcome	Tools	Person/Area Responsible	Comments
1.	Testing	Day Five	Error Free Prototype	Diverse Digital Platforms	All Project Members	Progressive
2.	Troubleshooting			Microsoft Powerpoint		
3.	Presentation					

# Meet the Team



<b>NAME</b>	<b>Ephrance Eunice Namugenyi</b>	<b>Winnie Shama Nalusiba</b>	<b>Alfred Ochola</b>
<b>EMAIL</b>	ephrancenamugenyi@gmail.com	winyshama@gmail.com	ochalfie@gmail.com
<b>PHONE NUMBER</b>	+256 777084882	+256 776777202	+256 773913902
<b>ROLE</b>	<b>Team Leader</b>	<b>Team Member</b>	<b>Team Member</b>



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**THANK YOU**  
**&**  
**God Bless**



MODUSBOX

CROSSLAKE



INCLUDE  
EVERYONE