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**Project Specifications**

**Stokvel Manager Application**



## **Summary**

The application being developed will help members of informal savings schemes, known as *stokvels* to manage their finances and affairs. These savings schemes help their members to manage their own finances and plan for the future. Depending on the type of stokvel (e.g., savings, funeral cover etc.), members can even receive pay-outs. These pay-outs usually happen monthly or annually, in the form of lump sums. This forms part of the stokvel's terms and conditions, that are agreed upon by the members before the stokvel is founded. The stokvel members will also agree on a Chairman and Treasurer, who will manage the funds of the stokvel, make sure each member is paying on time, schedule club meetings and issue pay-outs.

There are many problems that stokvels face, including late payments, miscommunication between members and mismanagement of funds. The main problem being mismanagement of funds. The members who have direct access to the money raised by the stokvel (Chairman and Treasurer) can embezzle it or even abandon the club, with all the funds. This can leave club members with serious financial problems and unwanted debt.

The application will help to alleviate the pressures of financial management and maintaining order within the *stokvel*, that the Chairman and Treasurer face. They will easily be able to see which members are paying on time, schedule the *stokvel's* monthly meetings, issue announcements and receive feedback from members, and see the total amount of money brought in on a particular month (instead of calculating it). Allowing them to focus on more important tasks, e.g., determining which bank to invest the money in or determining when members will get pay-outs, depending on their individual needs. The application will also give the members peace of mind because all their transactions will be documented and safely stored, leaving little room for corruption or embezzlement. Meaning that any corruption will be directly linked to the Chairman and/or Treasurer.

The program will allow users to join savings *stokvels*. The creator (The Chairman) can then assign roles (e.g., Treasurer) and then the stokvel will be able to receive payments and issue pay-outs. All members will be able to communicate with each other, through the general chat. Hence, the application is targeted at all informal saving schemes in need of a safe and secure platform to manage their funds and interpersonal affairs.

## **Aims of the application**

- Simple, intuitive graphical user interface that will allow users to create a profile and join a stokvel.
- Allow all members to make and receive payments.
- Allow communication between the members of each stokvel, through a simple chat function.
- Create a safe platform for all members to have peace of mind.
- Storing all the information of each member and stokvel in a database.
- Read and write to the database, for accurate and reliable data.

## **Motivation**

The concept of securely managing and investing in a stokvel using an application isn't a foreign one. A few other applications have been designed, but a key standout is *Stokfella*. They have developed a platform where members can create or join stokvels. A minimum of three members must be in a stokvel. When creating a stokvel, the creator starts a club account, powered by *Stokfella*, where the money will be deposited into and appreciate. This account is set up based on the goals and needs of the stokvel. Users can communicate through the platform and make payments. A user who is looking for a stokvel, can join any stokvel as they please. *Stokfella* does advise against this, but the option is still there.

The application I will be developing, is quite like *Stokfella* but there are a few key differences. Firstly, the application I am developing is focused more on secure stokvel dealings, rather than growing their money. *Stokfella* offers a club account for each stokvel, meaning they are handling and growing the monies in the stokvel. The application I am developing only keeps track of payments made and allows the user's stokvel to deposit the money into external accounts. This leaves a lower level of responsibility on our part if things go south.

Hence, I can conclude that my application is different from other projects and might help to fulfil their downfalls.

# **Specifications of Program Functions**

## **Logging In/Signing Up**

- When the user opens the application, they are presented with the login/sign up page.
- Users with an existing profile/account can simply enter their email and password and then proceed with application usage (e.g., taken to the home page). However, new users will have to create a profile first. This will occur on the stokvel joining page.
- New users (signing up) can create a profile for themselves which will include important details like, name, surname, date of birth, gender, bank, and cell phone number.
- An error message will appear if: the user has entered the incorrect password or email for their profile, the password or email chosen by a new user has already been used by another user or fields have been left out.

## **Joining a Stokvel**

- If it is the user's first time using the application, they will be brought to a page where they can create a profile and join a stokvel.
- They will first enter their personal details on this page.
- The user can then access all details regarding the stokvels that are available to join, e.g., name, monthly payment figure, members limit and pay-out structure (monthly or annual).
- Once they have decided which stokvel they are keen on joining, they will enter it
- Then they will enter their email and create a password. After, they will proceed to the home page.

## **Home Page**

- Once the user has logged in, they are brought to the home page.
- The user can access various application functions from this page. Including the account manager, the general chat, and the help page.
- Once these other functions are accessed, the user will be taken to their respective pages.

## **Pages Accessible from the Home Page**

### **Account Manager**

- The user can make payments through this page. The payment will be added to the account of the stokvel and the stokvel will then decide the best place to grow the money (bank, stock market etc.)
- The user can pay on any day in the month, as long as they are paying on time.
- The user can also change their bank on this page
- They can also change their stokvel and move their money to the new stokvel
- The user can also check their transaction history through this feature, e.g., when they made previous payments.

### **General Chat**

- The user can send messages to all the other members using this feature. They can schedule meetings and remind each other to make payments or about important events.
- All members receive these messages, and all can reply.

## **User Interface**

### **Login/Sign Up Page**

New User (Sign Up):

- Sign Up button

Existing User (Login):

- Fields to enter email and password.
- Login button

### **Join Page**

New users will be prompted with this page before they get to the home page.

- The user can enter their personal details and desired stokvel to join.
- Information on all stokvels can be accessed via a button.

### **Home Page**

- The user will be brought to this page every time they log in. All functions are accessible from this page, through buttons.
- The page will look simple but will be practical and user-friendly.

### **Manage Account Page**

- On this page the user will be able to make their payment and even change the bank they are using.
- They can also change their stokvels.
- All this will be done via buttons and combo boxes to increase usability and convenience
- There will also be a text area showing important stokvel information

### **General Chat**

- This page will have a field where the user can type a message and it will be sent to all other members.
- The sent message will be displayed in a text area
- There will also be a text area showing all stokvel members, in the users stokvel

## **Help Function**

- The help function is accessible on the home page and the user can get help for all the functions accessible from the home page.
- If the user has problems making payments or changing their stokvel and/or bank, they can look for the “Manage Accounts” section of the help page. This section explains, in detail, how to access the Manage Accounts page, how to change stokvels and/or banks and how to make payments. I
- If the user has problems accessing or using the general chat feature, they can look for the “Chat” section of the help page. This section explains, in detail, how to access the general chat and how to send messages.

## **Data Storage**

- The application will have a database to store all important and relevant data gathered from the users.
- The database will also store relevant stokvel information about each stokvel.
- A text file will be used to store basic data needed by the application
- All profiles created will be stored in the database. The data will be stored directly from user data input. Each profile will be uniquely identifiable by the email address.
- Once a member joins a stokvel, they will be added to that particular stokvel in the database.
- All transactions will be stored in the database. Each stokvel’s transactions will be stored adequately and logically. Bank details will be safely stored.

## **Hardware & Software Requirements**

### **Hardware**

- Intel Core i3 or equivalents, e.g., AMD Ryzen 3
- Minimum 2GB RAM
- HDD / SSD

### **Software**

- Windows 10 or equivalents, e.g., MacOS X 10.7
- NetBeans 8.2 or higher
- MS Access or MySQL