SCYBERNET PLATFORM

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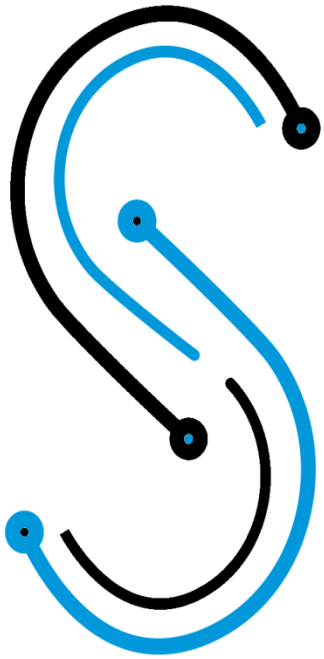
TITLE

SCYBERNET PLATFORM (E-LEARNING)



Knowledge is power

PREFACE / PROBLEM OVERVIEW

In Zambia, the ministry of General Education has being trying to make learning available for everyone. From the reduction of School Feel to introduction of Classes for those who had left school. But nevertheless people still drop out of school because they find it difficult to understand what they are taught while some just lack interest in education. Different people have different ways in which they understand things.

Over the past years Zambia has faced some problems or challenges. Some of the main challenges that I picked out include; **Poverty**, **Slow Economic growth**, **Increased school dropouts**, **Unemployment** and in 2020 an **Epidemic**. When we deeply look into these challenges, they are interconnected and there is only one cause "*Lack of education*". How are these challenges interconnected?? If a young person has no interest in education he/she will eventually drop out of school and when this happens, the person will have low levels of employment (*will be unemployed*). When this happens, the person will be poor and will depend on other working people and mostly the government for things like free Millie meal. This will cause government to spend large expenditure on poor people thus affecting economic growth. How pandemics are a challenge is, due to low levels of education some people will be ignorant and will not follow instructions given by the ministry of Health on how to prevent these epidemics, thus these diseases will spread quickly and rapidly through a human population. Moreover these people have no other source of income apart from going to that market place to trade or that barbershop in town. On the other side, it is easier for educated people to stay in their homes during serious pandemic, thus the increase in the number of uneducated or unemployed youths will lead to even greater spread of these diseases in the near future. The only way to solve this problem is to improve and increase our learning system.

Lastly, the examination Council of Zambia has being conducting examinations. The number of Grade 12's and 9's who pass the examination sometimes increases while sometimes it falls. For example the number of grade 12's who passed in 2017 was **64.84%** while in 2018 it reduced to **63.44%** (*difference 1.4%).* Scybernet is here to help Zambian students in the field of learning so as to increase these numbers and bring out Innovators and Inventors. Thus we will grow our economy and have low poverty levels among other things in this nation.

* *The following report gives clear guideline and information about the Scybernet Platform*

ACKNOWLEDGEMENT

This project would not have been possible if it wasn't for the following people; Wusakile Science Department for helping me with books, I would also want to thank **Abdul Moiz** for helping me in designing the Logo for Scybernet. My fellow Classmates also contributed by giving me Some Quiz question, these classmates are **Natasha Changwe**, **Mumba Lukonde, Robin Adams**, **Shadrick Chisenga** etc. I would also like to acknowledge **Harriet Mtonga** and **Gershom Ndawa**.

I would also like to acknowledge, **Doreen Mwape** for advising me on the platform and **Chipo Hameja** the Coder who helped me with the Android Application.

I would also like to thank **PDFDRIVE** for the permission they gave me to use their materials in Scybernet Official Website. I also want to thank Pixabay and W3layout for the images and designs of Scybernet Official website together with Wikipedia for all articles that may be included in the Scybernet website.

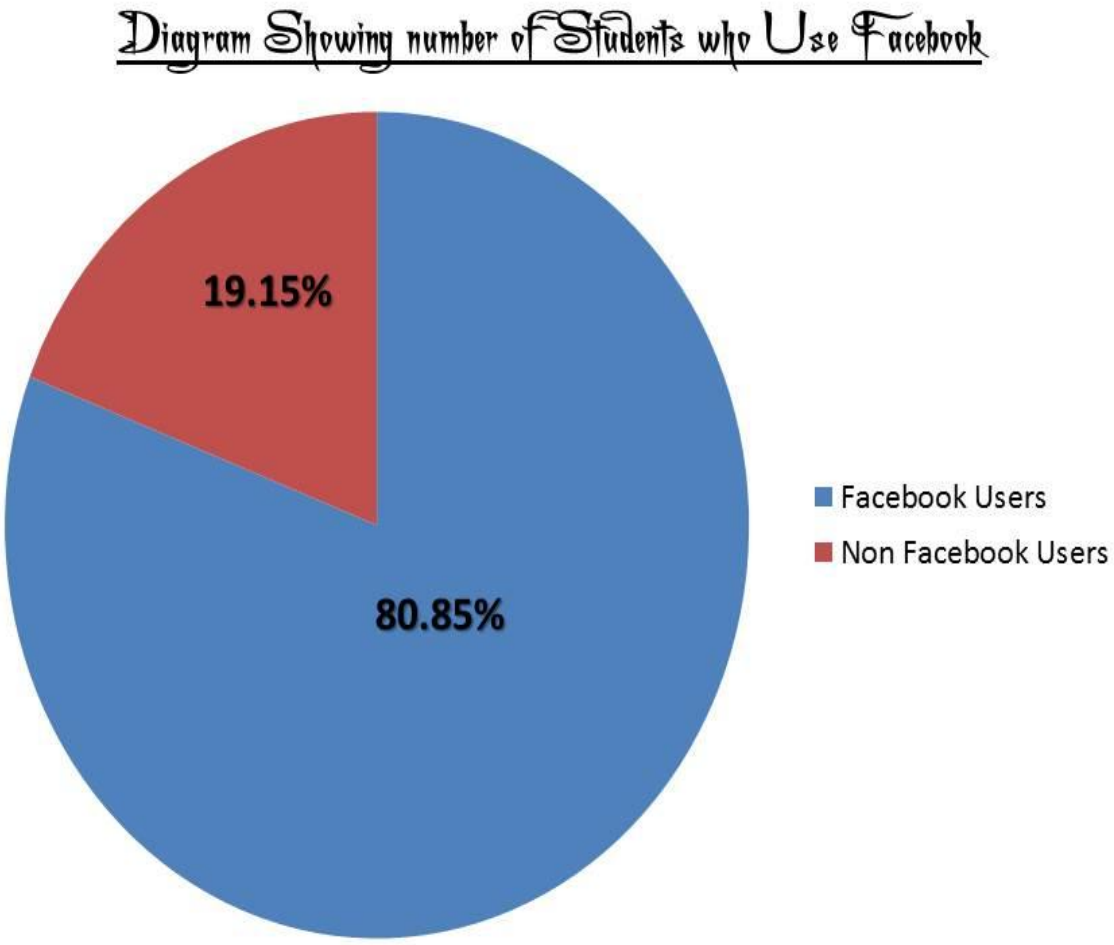
Lastly I want to thank **God Almighty** for making everything possible because without him, this project would not have been possible.

AIMS

- To increase the understanding of learners in Science and Mathematics
- To create a more open platform where Zambian students are free and feel at home.
- To create a Search Engine that is just for Education and moreover, the safest.
- To create a Science discussion forum for students.
- To make sure that every learners has equal understanding in Science & Mathematics

DATA PRESENTATION/ANALYSIS

The figure below shows the number of students in urban areas of Zambia who use Facebook

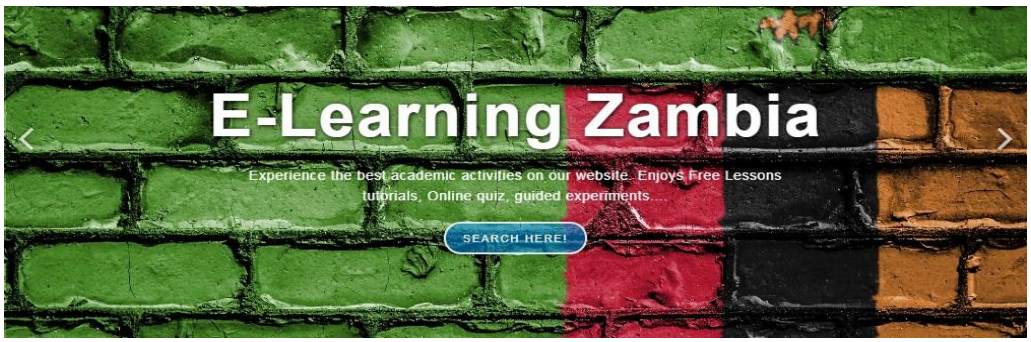


From the pie chart above, it shows that a huge percentage of students in urban own phone or have access to phones so Scybernet being an Electronic learning platform can reach out to many students. Thus we can build scientific minds by making learning easier for these candidates. In addition we might have more scientific entrepreneurs than job seekers in the future thus improving our economy.

INTRODUCTION TO SCYBERNET

What is Scybernet?

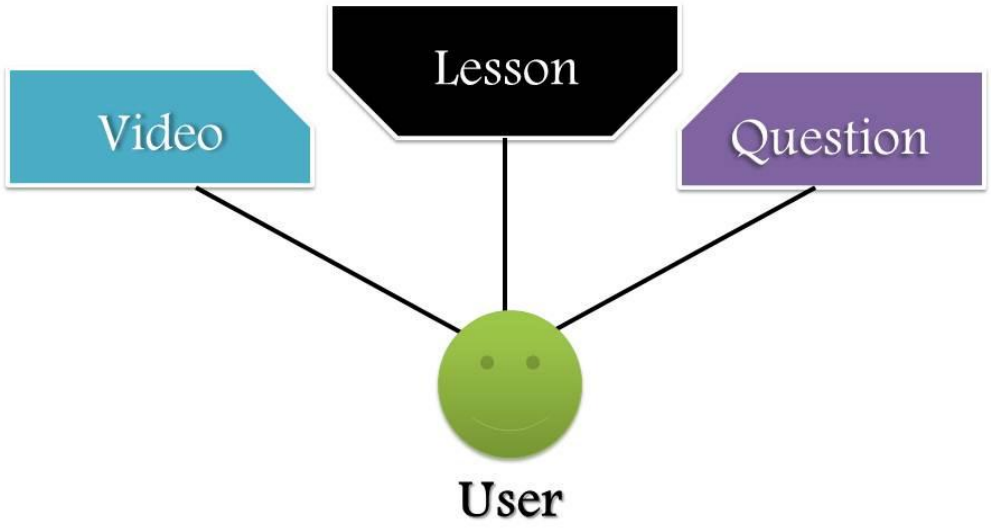
The word **"Scybernet"** is divided into three parts; **SC**, which stands for science, **CYBER**, Which means communication through the use of computers and **NET**, Which is simply an interconnection of things. So Scybernet simply stands for Science communication network.
To analyze this, Scybernet will be a network of science information that will be communicated to students.
Scybernet is a science website designed to provide educational materials which uses the Zambian teaching **curriculum** (syllabus). It will also help transform science from its Simplicity to its Explicit and will be a great reference when you need to refresh or update your skills, especially as you explore beyond. On the website, you will Experience the best academic activities. You will Enjoys Free Lesson tutorials, online quiz, guided experiments and other stuff. The aim is making an easier way of learning by integrating different features and merging them into one big platform. Scybernet website contains the following features; Lessons, Experiments, Quizzes, Examination Papers, Articles, Facts/laws/theories, Book download links etc.
Moreover, it will be free, meaning students will not have to sign up or sign in in order to access the information they need. This is because we believe that not every student owns their own cell phone, some just borrow from their parents, So we've completely eliminated the sign in or Sign up page for the learning area so that's students can access lessons and other things without having to login. Meaning they can access information on any mobile phone or Computer. Sign up and Sign in Pages will only be available for the Discussion Forum and Online Examination.



Screenshot taken from Scybernet Website

Why Scybernet?

Scybernet has almost everything in one place. The website is such that, when you want to read a certain topic in any of the subjects, each lesson will have its own **documentation** (*written text*) and below that documentation there will be a **video** which will be attached to that same topic you are reading about. In addition, below that same video there will be some **Examination question** from different E.C.Z past papers which will be based on the same topic you are reading. In summary Scybernet will merge Lessons, Videos and Questions to give readers a better understanding. Moreover it will follow ***Zambia's teaching curriculum***, so do don't have to worry on getting out of the Syllabus when using it.



What's the Strategy?

The strategy is to make learning easier for students. We know people say that in classes there are two categories of learners, the ***Fast*** learners and the ***slow*** learners. But I believe that there is no such thing as a slow or fast learner. The only thing that differentiates the learners is that the so called "slow" learners don't adapt to new information due to boredom, Lack of interest, Hate for subject, laziness and lack of creativity among other reasons. That's why the strategy is to build the creativity, interest and logic in every student's brain because if Creativity is built, students can invent, If interest is built students will thirst for knowledge and if logic is built students can solve problems.

SCYBERNET FEATURES EXPLAINED

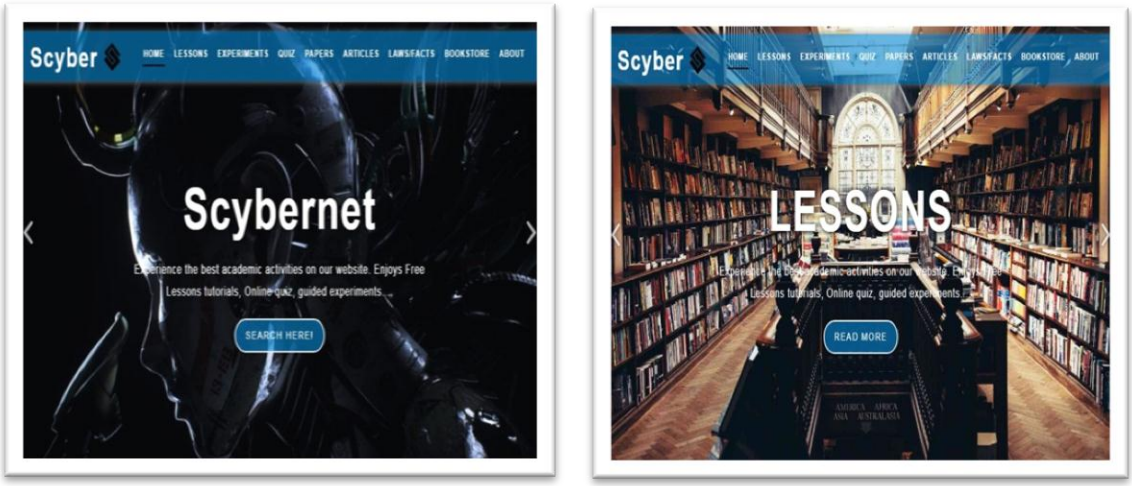
Scybernet has two categories of features, these are; Internal Features and External Features. Each feature has been explained below.

INTERNAL FEATURES

Here are some internal features of Scybernet

❖ Scybernet Official Website

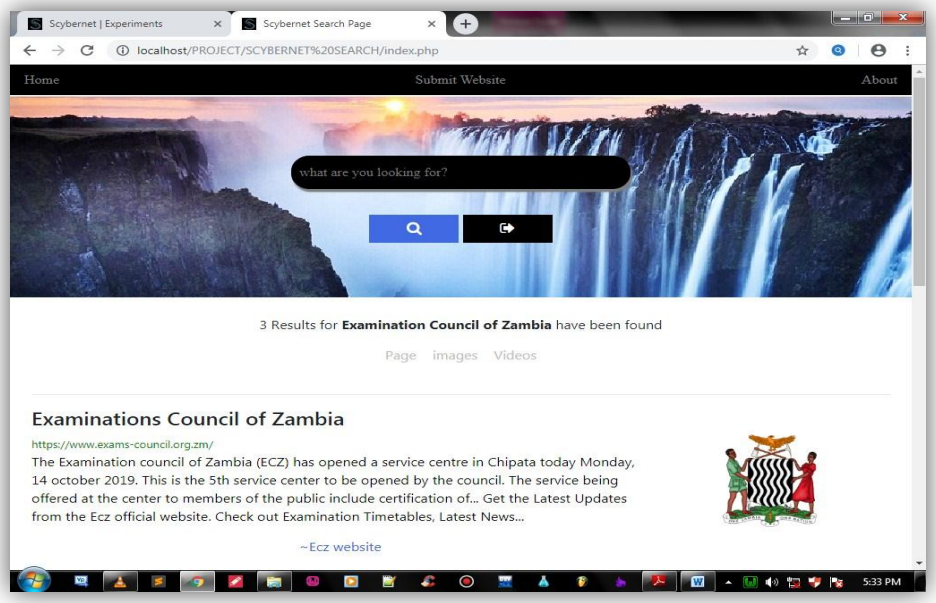
This is the main website where students will find different school material such as books, lessons, quizzes, Facts and other things. This is the main Area in the platform where all the learning takes place. The best part is you don't even have to sign up in order to access these features it's completely free. The official website also provides links to other features of this platform



~Photos of Scybernet main website

❖ ScyberSearch Engine

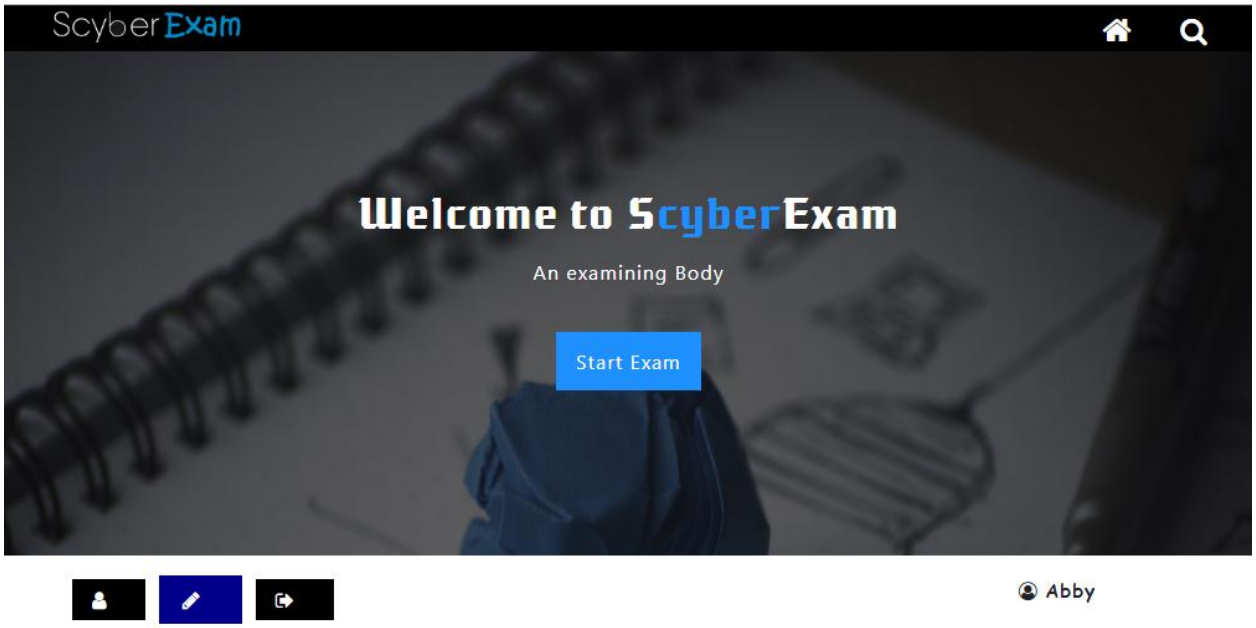
This is another part of the Platform were students will be given access to search for information. It will be a search engine for students and for some other Zambian Websites such as websites for universities, colleges. The main plan for this search Engine is to make it the safest of all. It will not contain any bad contents such as Pornography site, Hacking tools and false news sites. My plan is that even a ten year old child can be trusted to use this Engine.



~ Photos of ScyberSearch Engine

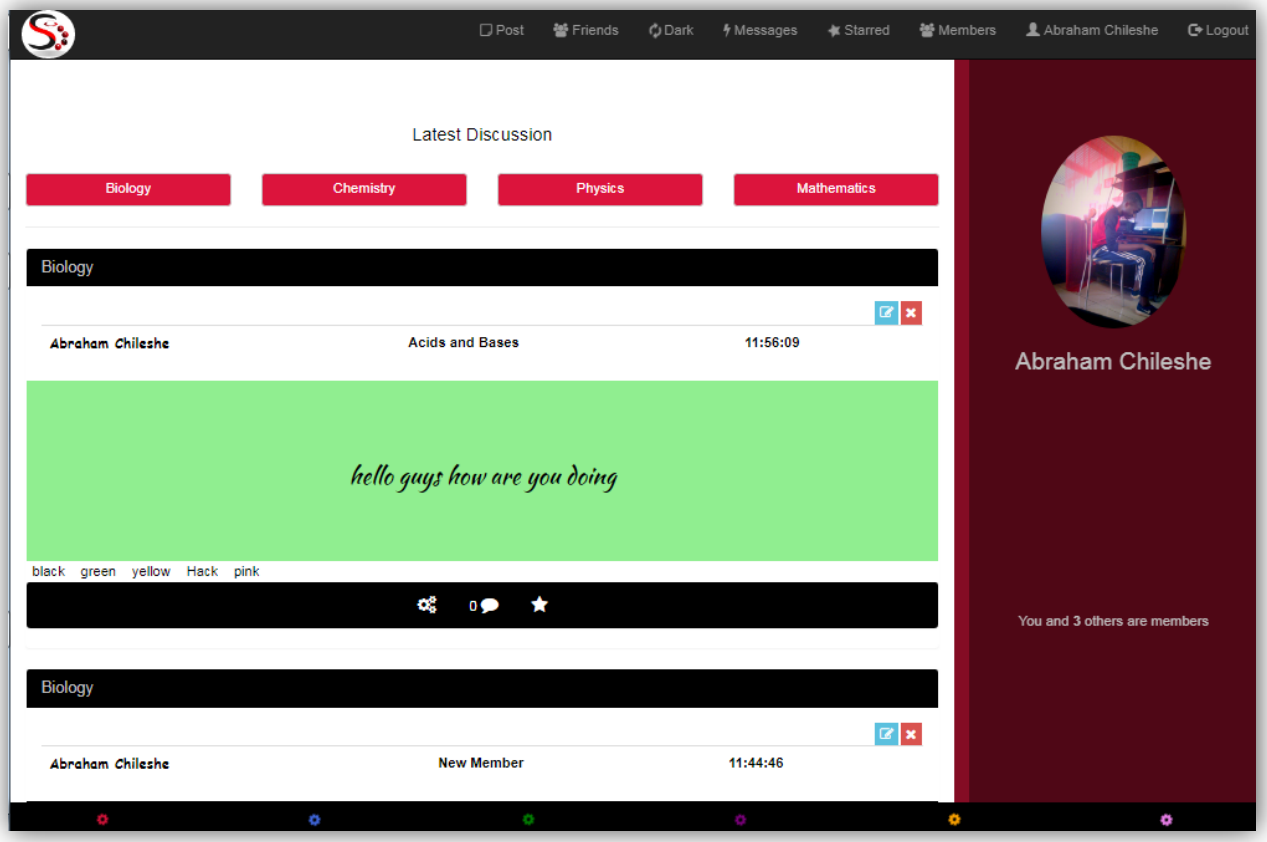
❖ ScyberExam System

This is a part of the platform that will enable learners to take part in an online examination. The candidates will have to answer 100 multiple choice questions in Mathematics, Physics, Biology and Chemistry. If a candidate gets score above 74%, he/she will be given an E-Certificate to certify that he/she has completed and passed the Online Examination.



❖ ScyberForum

This is another part of the platform. ScyberForum is an online discussion forum, were students can only discuss science matter. It's more like "Quora" but again it's only for Zambian Students. In this website, users will be able to discuss science issues, pitch ideas and other academic stuff. They can also ask questions and get feedback from other members of this community.



~ Photos of ScyberForum

EXTERNAL FEATURES

Here are some External features of Scybernet

❖ ScyberApp for Windows

This is an application for the windows Operating Systems that will make it easier for users to access all the features of the platform. With a download size of only about 11 Mb, the students can get to our platform by just clicking on the feature that they want to visit. The only thing they need is an internet connection to their PC and they will enjoy not having to go to Google and searching for the Platform from there our struggling to find the link to the ScyberExam in the main website.

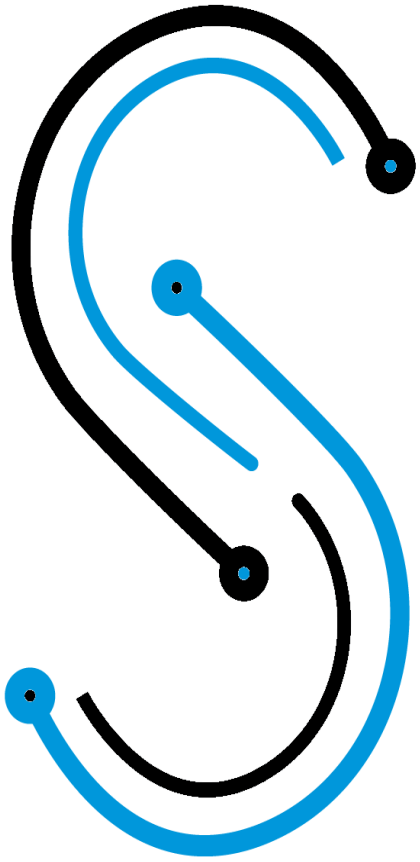
❖ ScyberApp for Android

Just like the application for windows, this will also do almost the same. The only difference is that, we have also plugged in the application web viewer, meaning that you can visit our platform from this same Application. You won't have to use your browser to visit our platform but our application will link you to the website.

LIMITATIONS AND PROBLEMS

1. **Lack of my own Personal Computer:** This is the biggest problem that I have being facing. It limits the completion of Scybernet Platform. When creating the features of this platform, I use a family desktop. This limits me because sometimes I fail to use the Computer because some other family member may be using it. Also when there is no power I cannot do any coding because it's a Desktop Computer and depends on electricity. Sometime, I am forced to delete some of my files because the storage of the computer runs out since its shared and there are important files which are stored there which cannot be deleted.
2. **Buying a DNS (Domain name Server) and hosting:** Renting a more safer webhosting service is a challenge because right now I don't have any money to rent a safer hosting account and I'm using a free webhosting site and it has only given me 1GB of storage, so meaning I cannot upload excess file of my platform on the internet (e.g. Videos, Large documents…). This is also a problem because currently the platform has about 400mb of data so in the future once the platform exceeds 1GB of Data, I will not be able to upload the platform on the internet unless I rent a hosting account.
3. **Working on it alone.** Sometimes it's had to work on the Platform considering the fact that I'm the only person that has to add all contents in the Platform and considering the fact that I have to cope with School Work.

FUTURE ASPIRATIONS

- **Make the Website Free**. In future, when I have the audience that I need, I want to make the website freely accessible even without data plan.

Compact Disk Attachment Page