Project Name: **AfriLearning**

Project Description:

AfriLearning is an multi features online educational platform that enables university, elementary, primary, and secondary students to interact with teachers and perform the respective task post by the administrators.

The platform encompases an interactive dashboard to display and track students results coupled with machine learning tool IBM watson to process data in real time and predits students results.

Main Functionality:

Teachers can be able to post educational material in the forms of video, text and images through a unique ID students can log in and perform the task stipulated by the teachers within the given period of time.

Analytical Overview:

Giving respect to the African online Educational board there are over 12 known educational platforms on the continent more of which are still in its infancy stage, the list can be found here <https://www.schoolnetuganda.com/news/the-top-e-learning-platforms-transforming-africa/>

1. The for main main competitors are:

1. Udemy
2. Coursera
3. Edx
4. Code Academy

2. A analyst of functional comparison between AfriLearning and other online educational platforms are:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Responsiveness | Operating System  Windows/ MacOS | Major Browser Supports  Chrome/ Opera/Safari | Memory Usage |
| AfriLearning | High | Windows and MacOs | Chrome/Safari | Low |
| Udemy | Moderate | Windows | Opera/Chrome | High |
| Coursera | High | Windows | Chrome | Moderate |
| Edx | Low | MacOS | Safari | Low |
| Code Academy | Moderate | Windows | Chrome | High |

1. Expected Results:

The project is expected to follow the KISS principle, its simplicity and user-friendly attributes will give users satisfaction and boost user retainments.

A. AfriLearning will feature a progressive web application that entails web, Mobile and Desktop applications for easier accessibility of students.

B. list of features that should be completed in the first phase of the project.

|  |  |  |
| --- | --- | --- |
| **S/N** | **Features** | **Description** |
| 1 | Registration/ Login | Users will be able to register through their existing social accounts like Google, facebook, Instagram. |
| 2 | Interactive Dashboard | Through the help of existing Javascript libraries like chart.js, Echart.js users will have access to visualize data and results. |
| 3 | Support high quality HD videos and Audio | With the integration of video.js and sound.js users can access quality educational material. |
| 4 | Administrative Panel | The entire online educational process will be administered by an administrator making use of the date receive from the backend |
| 5 | Exam Assessment | Through an AI tool, exams will be marked, corrected and predicted through a train model. |
| 6 | Comments and Feedbacks | Comments and feedback about the course will be sent directly to teachers mail for smooth access. |
| 7 | Results Monitoring | Students can visualize their results through a interactive dashboard located in the respective panel |
| 8 | Remoteness | Since data is being stored locally it will reduce increase latency and reduce bandwidth thereby making it easier for users in remote areas to access the platform |
| 9 | Supports of Different contents | The platform is tailored to support programming contents, mathematical contents, Graphical contents and Interactive learning between students and teachers. |
| 10 | Chat | Students, Teachers and Administrators can communicate through a chat system setup on the platform, the systems supports the exchange of files, and images in various formats. |

Projects Objective:

Simulate offline class room features for teachers and students in Africa, enhance educational accessibility through digitalization.

Increase the accessibility of education to remote areas, where students can’t afford the luxury of attending classes.

The project is set to alleviate educational literacy and improves standard of living.

Assumptions and limitations:

1. High internet cost to access the platforms will result in inequality of knowledge among students.
2. Lack of technological devices is a hindering factor for knowledge accessibility.
3. For the fact the educational is provided for free educational contents value tends to reduce thus affecting the quality of education.
4. Increase in irresponsibility of students since student won’t be monitored offline