



MARKS USER MANUAL

Project: Marks

CLIENT: J.M NTSIME H.S

COS 730 Software Engineering

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1 General Information

Marks application is aimed enhance the school administration process, marks management and provide school-wide view of the academics. Time and data are some of the most expensive commodities, Marks will use these commodities to improve the learners marks by saving teachers time and also school-wide view of the academics to analyze; identify key issue and see trend in the learners marks.

2 System Overview

The core of this project is to centralize the learners information; the system will allow school administrators to manage learners information as well as subjects. Teachers will be able to capture marks of their learners, learners can view their marks, previous spreadsheets of marks can be uploaded and also viewed in the system. Current data as well as legacy data can be used to provide school-wide view through graphical representations.

3 System Configuration

Marks is hosted online. Users need an Internet connection as well as a web browser to access the website. Any operating system will run fine and the website is accessible from The following browsers:

- Google Chrome
- Mozilla FireFox
- Safari
- Internet Explorer

If your browser is not listed here, the site may work with limited functionality.

4 User Access Levels

In order to use the system users have to have been added to the system as either a admin or teacher, and will be provide with a user numer e.g (A20200001, T20200028) by the administrator. Simply open the URL and register an account using the user number provided. If there is any problems, Please follow register and login details.

5 Installing

In order to use this system, users must have a browser - with Javascript enabled - installed.

6 Deployment model

The system will be able handle changes and growth and still be able to perform better if not the same, using microservices allows for components to be added to the system without compromising the system as whole. All the Spring boot micro-services will be deployed under one Microsoft Azure, as well as the GUI. The account details, credentials will be deployed separately on a Google Firebase server.

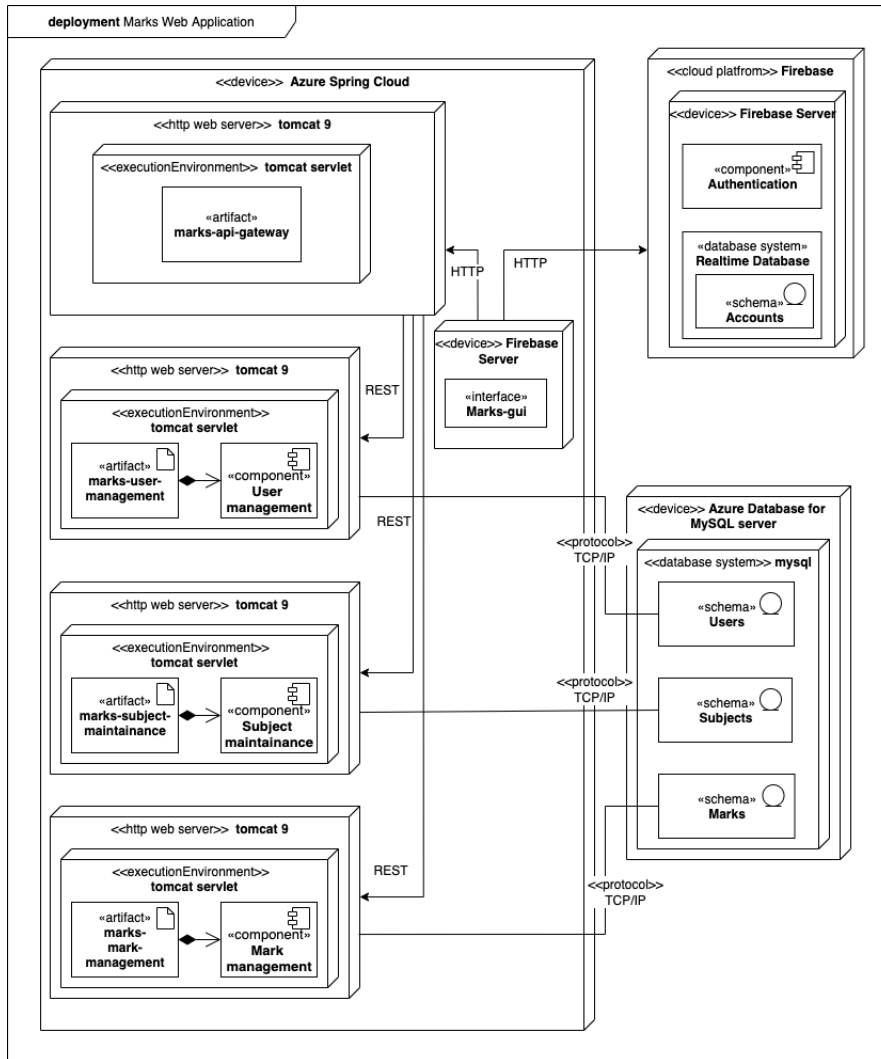
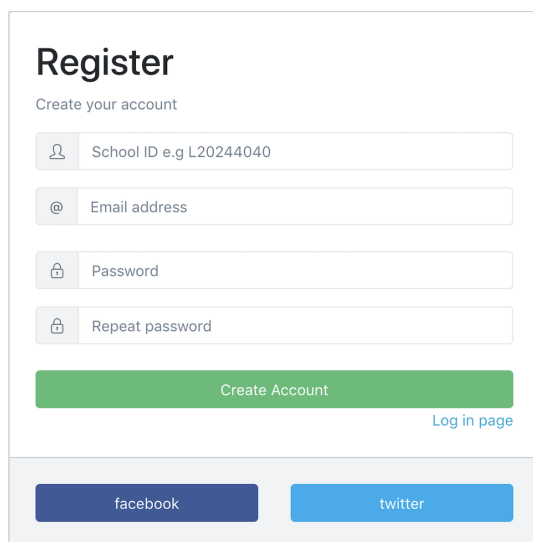


Figure 1: Deployment model

7 Getting Started

7.1 Register an account

Users will have to visit first have their details captured by an Administrator at the school, and after being provided with user number user can go login screen click register to register an account



The image shows a web registration form titled "Register" with the subtitle "Create your account". It contains four input fields: "School ID e.g L20244040" (with a person icon), "Email address" (with an @ icon), "Password" (with a lock icon), and "Repeat password" (with a lock icon). Below these fields is a green "Create Account" button and a blue "Log in page" link. At the bottom, there are two buttons for social media login: "facebook" and "twitter".

Figure 2: Register screen of the website

Enter all requested information. Click on 'Register' and await confirmation.

If any error occurs ('email address already exists' for example), try entering your details again (paying careful attention to spelling) or alternatively contact IT administrator.

7.2 Log in

After registration click on the 'Log in' button to navigate to log in screen, if you already have an account simply got to navigate to login screen.

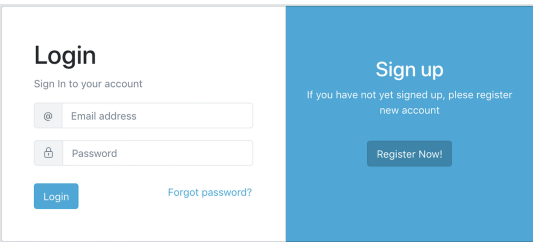


Figure 3: Login screen of the website

Enter email address (that you entered when you registered) and click 'log in'. If you have an existing account, you will be successfully logged in to the system.

7.3 Log out

When done using the application, please do not forget to logout, see screen below

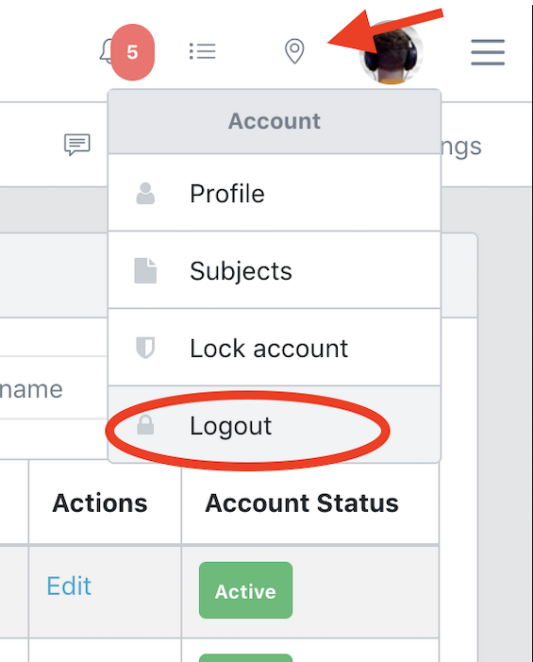


Figure 4: Login screen of the website

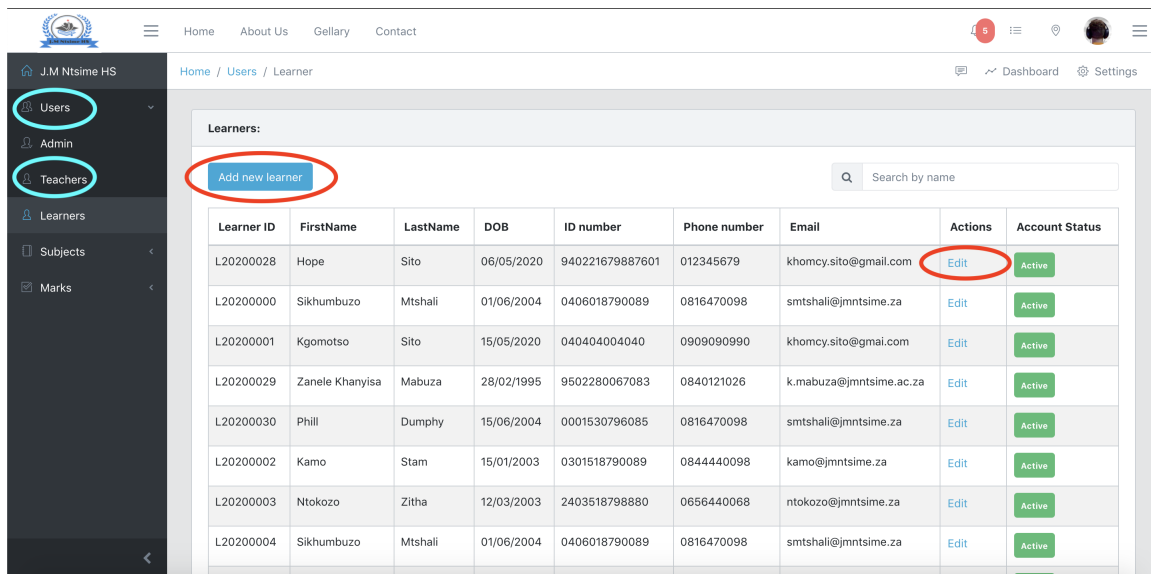
Clicking the logout will navigate to login screen, this will require you to supply correct credentials again should you wish to login again.

8 Using The System

8.1 User Management

8.1.1 View Users

Administrating the user information is a very easy process. Assuming that logging in has been successfully. Click on "Users" on the top-leftmost side menu bar, then click on on the type (Admin, Teacher, Learner) users you want view. You should now see this page:



The screenshot displays the user management interface for J.M Ntsime HS. The left sidebar contains a menu with 'Users', 'Admin', 'Teachers', 'Learners', 'Subjects', and 'Marks'. The 'Users' menu item is highlighted. The main content area shows the 'Learners' section with an 'Add new learner' button. Below this is a table of learners with columns for Learner ID, FirstName, LastName, DOB, ID number, Phone number, Email, Actions, and Account Status. The 'Edit' link in the Actions column for the first learner is highlighted.

Learner ID	FirstName	LastName	DOB	ID number	Phone number	Email	Actions	Account Status
L20200028	Hope	Sito	06/05/2020	940221679887601	012345679	khomcy.sito@gmail.com	Edit	Active
L20200000	Sikhumbuzo	Mtshali	01/06/2004	0406018790089	0816470098	smtshali@jmntsime.za	Edit	Active
L20200001	Kgomotso	Sito	15/05/2020	040404004040	0909090990	khomcy.sito@gmail.com	Edit	Active
L20200029	Zanele Khanyisa	Mabuza	28/02/1995	9502280067083	0840121026	k.mabuza@jmntsime.ac.za	Edit	Active
L20200030	Phill	Dumphy	15/06/2004	0001530796085	0816470098	smtshali@jmntsime.za	Edit	Active
L20200002	Kamo	Stam	15/01/2003	0301518790089	0844440098	kamo@jmntsime.za	Edit	Active
L20200003	Ntokozo	Zitha	12/03/2003	2403518798880	0656440068	ntokozo@jmntsime.za	Edit	Active
L20200004	Sikhumbuzo	Mtshali	01/06/2004	0406018790089	0816470098	smtshali@jmntsime.za	Edit	Active

Figure 5: View users

8.1.2 Add or Edit Users

Previous screen, figure 3, you can see the highlighted red button a link, these will navigate to the screen below, for maintaining a user. At the top to you can conveniently navigate back to the list of user, or scroll down when done upon save you will also be redirected to the list of users

The screenshot shows the 'Learner' form in the J.M Ntsime HS system. The form is located under the 'Users / Learner' path. A sidebar on the left contains navigation links for Home, Users, Admin, Teachers, Learners, Subjects, and Marks. The form fields are as follows:

- Title: Dropdown menu
- Initials: Text input (placeholder: Initials e.g K.C.J)
- Full name: Text input
- Last name: Text input
- Gender: Dropdown menu
- Race: Dropdown menu
- Birth date: Text input (placeholder: yyyy/mm/dd)
- Nationality: Dropdown menu
- ID Number: Text input (placeholder: ID number)

A link labeled 'View all learners' is circled in red in the top right corner of the form area.

Figure 6: Maintain users

8.1.3 Deactivate Users

Should there be a need for deleting users details, click on the account status "Active", you should see a pop up like below and confirm. The deactivate will not delete user details, deleting is not allowed, it will make the user inactive.

The screenshot shows the 'Teacher list' page with a 'Deactivate User' modal open. The modal contains the text 'Are you sure you want to deactivate the user...' and two buttons: 'Close' and 'Deactivate'. The background shows a table of teachers with the following data:

Teacher ID	FirstName	LastName	DOB	ID number	Phone number	Email	Actions	Account Status
T20200000	Kune	Sali	01/06/2004	0406018790089	0816470098	smtshali@jmntsime.za	Edit	Active
T20200001	Lindi	Khumalo	01/06/2004	9406018794404	0816470098	khumalo@jmntsime.za	Edit	Active
T20200002	Zia	Nkozi	01/06/1989	8906029794609	0816470098	nkozik@jmntsime.za	Edit	Active
T20200003	Teacher	Sito	02/06/2020	940221679887601	012345679	khomcy.sito@gmail.com	Edit	Active
T20200004	Teacher	Sito	02/06/2020	940221679887601	012345679	khomcy.sito@gmail.com	Edit	Active
T20200005	Teacher	Sito	03/06/2020	940221679887601	012345679	khomcy.sito@gmail.com	Edit	Active

Figure 7: Deactivate user

8.2 Subjects Maintenance

8.2.1 View subjects

Administrating the subjects is similar to user administration. Click on "Subject" on the top-leftmost side menu bar, then click on "View subjects" You should now see this page:

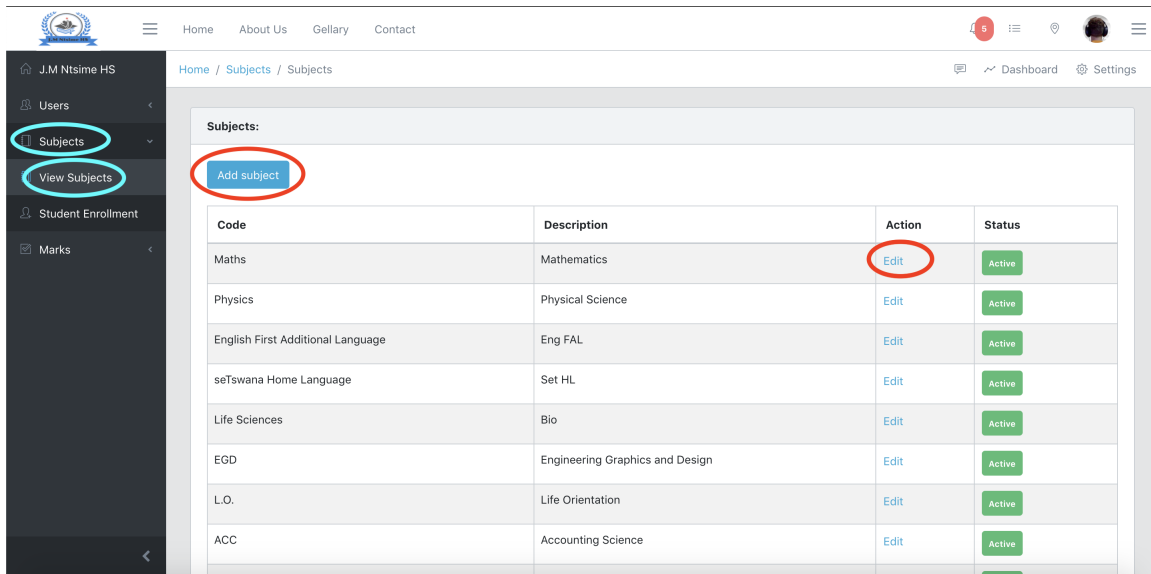


Figure 8: View subjects

8.2.2 Add subject

Previous screen, figure 6, you can see the blue button highlighted red, "Add subject" this will navigate you to the screen below to add subject, click submit when done and you will be navigated to list of subjects

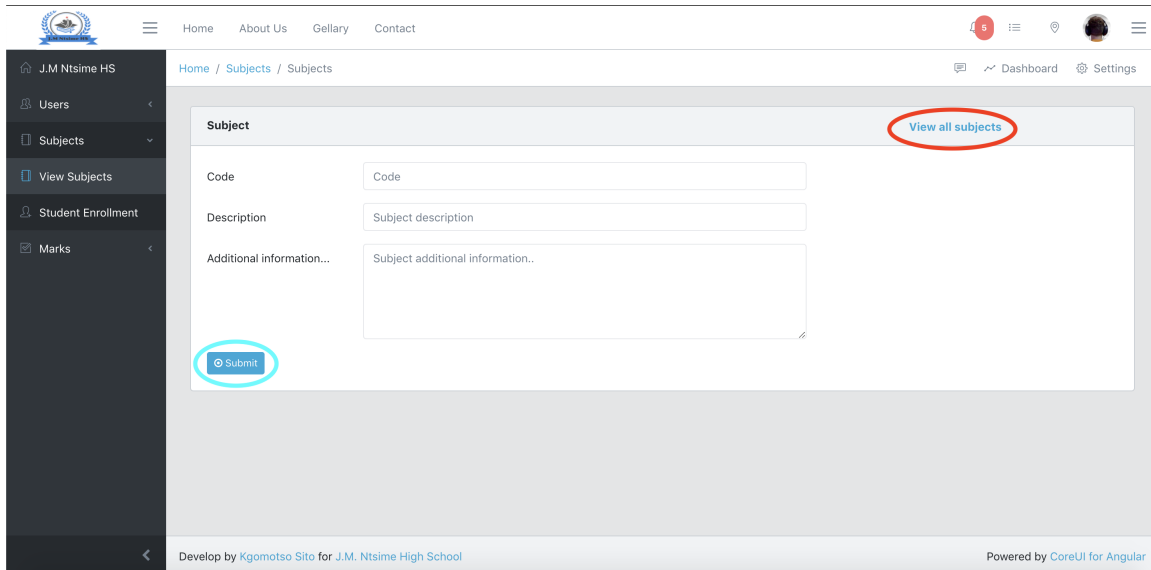


Figure 9: Add subject

8.2.3 Edit subject

Similarly, figure 6, you can see the blue link highlighted red, "Edit subject" this will navigate you to the screen below to edit subject, here you can also add and maintain assessments (orange arrow point to relevant assessment table and save button) for the subject of interest. click submit when done and you will be navigated to list of subjects.

The screenshot shows the 'Edit subject' page. The sidebar on the left has 'Student Enrollment' highlighted. The main content area has a 'Subject' form with fields for Code, Description, and Additional information. A 'Submit' button is circled in red. To the right, there's a 'View all subjects' link circled in red. Below the subject form is an 'Assessment' table with columns: Name, Date, CAS Weigh %, Actions, and Status. An orange arrow points to this table. To the right of the table is a 'Create new subject' form with fields for Assessment name, Date of assessment, and CAS Weigh %, and a 'Save' button circled in red with an orange arrow pointing to it.

Name	Date	CAS Weigh %	Actions	Status
Class Test 1	04/02/2020	10	Edit	Active
Class Test 2	02/03/2020	10	Edit	Active
Cycle Test Q1	07/04/2020	20	Edit	Active
Class Test 5	04/05/2020	10	Edit	Active
June Examination	20/05/2020	30	Edit	Active

Figure 10: Edit subject

8.2.4 View enrollment

On the sidebar navigation again, click "Student enrollment", and you will see the screen below, the click "View enrollments" under action in the table

The screenshot shows the 'List of users' page. The sidebar on the left has 'Student Enrollment' highlighted. The main content area has a 'Learners' table with columns: Learner ID, FirstName, LastName, and Actions. The 'View Enrollment' link in the Actions column for the first learner is circled in red.

Learner ID	FirstName	LastName	Actions
L20200028	Hope	Sito	View Enrollment
L20200000	Sikhumbuzo	Mtshali	View Enrollment
L20200001	Kgomotso	Sito	View Enrollment
L20200029	Zanele Khanyisa	Mabuza	View Enrollment
L20200030	Phill	Dumphy	View Enrollment
L20200002	Kamo	Stam	View Enrollment
L20200003	Ntokozo	Zitha	View Enrollment
L20200004	Sikhumbuzo	Mtshali	View Enrollment
L20200005	Sikhumbuzo	Mtshali	View Enrollment
L20200006	Sikhumbuzo	Mtshali	View Enrollment

Figure 11: List of users

After "View enrollments" you will see screen below, select subject from the drop down and click on "Enroll learner", to remove subject simply click "de-register".

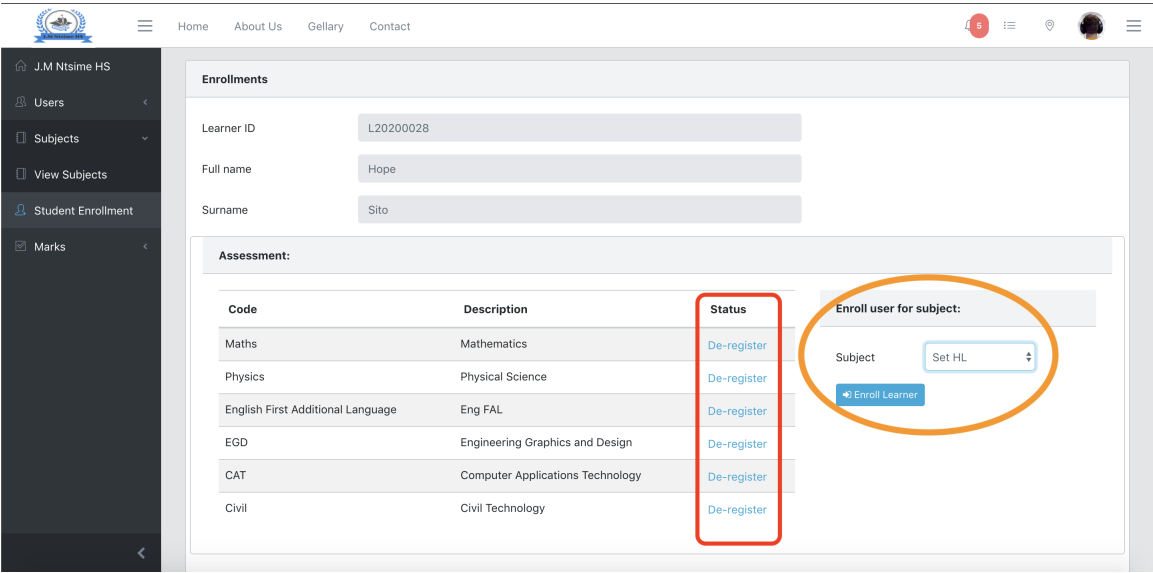


Figure 12: User enrollments

8.3 Marks

8.3.1 View marks

Finally the side navigation, please click on the sidebar click "Marks" then "Subject marks", and you will see the screen below, then click "View assessment marks" under action of the table.

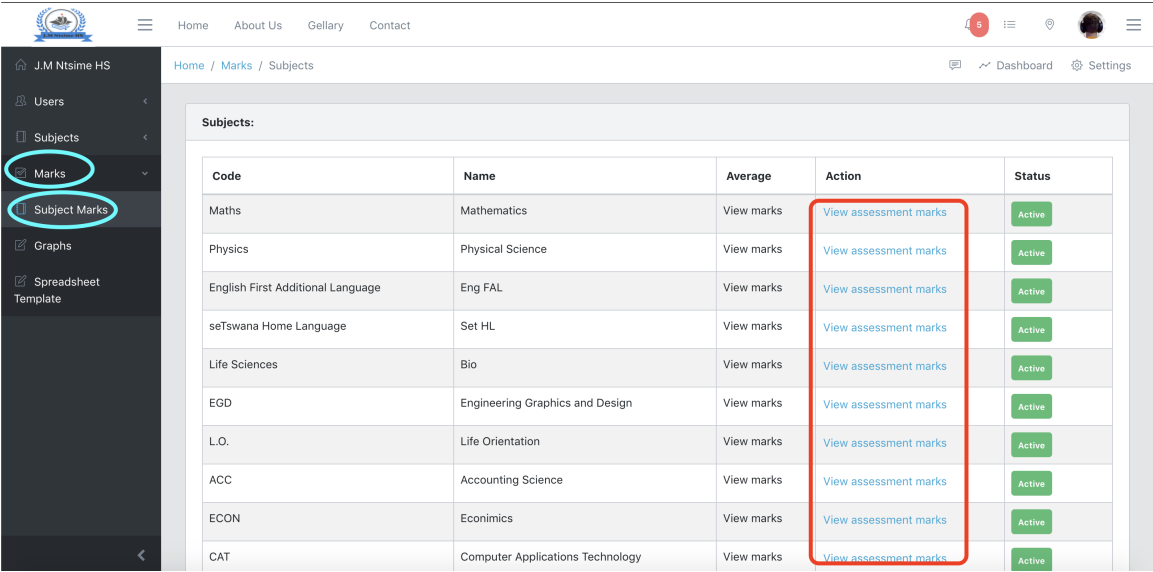


Figure 13: List of subjects

After "View assessment marks", screen below will appear. Click "Add learner marks" on the list of assessment table.

Home / Marks / Subjects

Back to subjects

Name	Date	CAS Weigh %	Actions	Status
Class Test 1	04/02/2020	10	Add learner marks	Active
Class Test 2	03/03/2020	10	Add learner marks	Active
Cycle Test Q1	17/03/2020	15	Add learner marks	Active
Class Test 4	14/04/2020	10	Add learner marks	Active
Class Test 5	05/05/2020	10	Add learner marks	Active
June Examination	08/06/2020	20	Add learner marks	Active
CT 2	04/06/2020	10	Add learner marks	Active
CT 2	04/06/2020	10	Add learner marks	Active

Figure 14: List of Assessment

8.3.2 Add or Edit Marks

On the screen below is where we can see the enrolled students for the subject and marks can be assigned for the assessment.

Home / Marks / Subjects

Back to assessments

Learner ID	Mark in %	Action
L20200002	49	Save mark
L20200003	82	Save mark
L20200004	92	Save mark
L20200005	59	Save mark
L20200006	90	Save mark
L20200007	73	Save mark
L20200008	99	Save mark
L20200009	77	Save mark
L20200010	59	Save mark

Figure 15: List of users and their marks

8.3.3 Graph Marks

Lastly and most importantly under "Marks", click "Graphs" this has three graph, the first Line Graph compares averages of students over the period of the year, second a Bar Graph showing marks yearly of the subjects, and lastly Radar Chart show the same information as the Bar Graph. On the line graph click the lengths to remove subjects from comparison

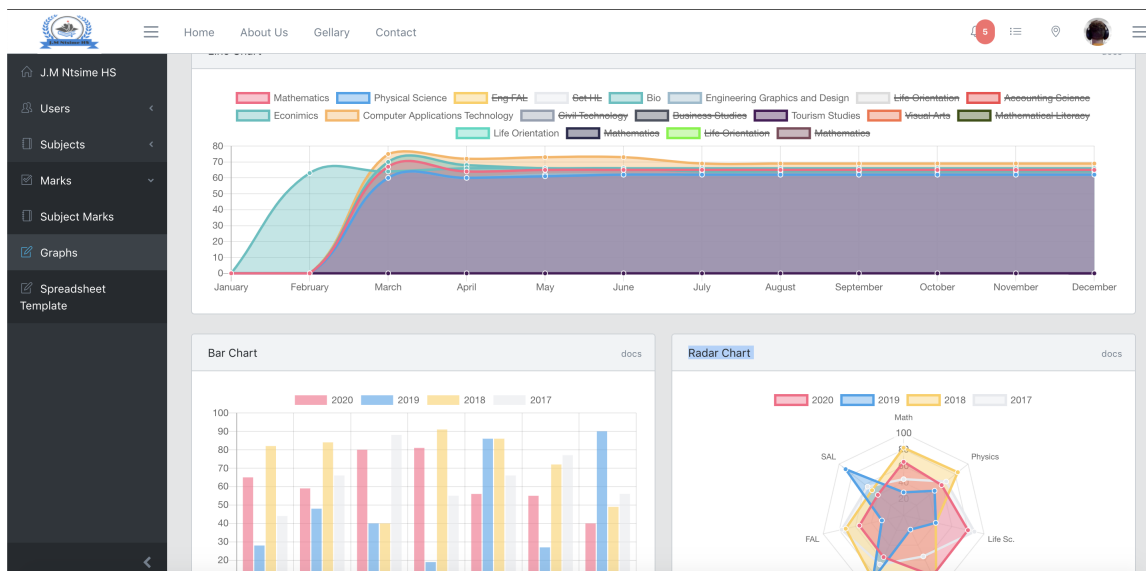


Figure 16: Graph summarizing marks