DOST IV-A Quality Management Information System

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BACKGROUND OF THE STUDY

- Governance and public administration are more productive, effective and efficient through the help of modern day technologies.
- Information system plays an important role to the success of the organizations.

STATEMENT OF THE PROBLEM

 The management of the DOST IV-A regional office wanted to improve their efficiency in measuring customer satisfaction, in documenting all the meetings held within the organization and management of information resources for effective decision making.

SIGNIFICANCE OF THE STUDY

The Quality Management Information System will provide:

- A faster service on measuring and analyzing customer satisfaction
- A service that documents all the meetings held within the organization
- A service for faster retrieval of rules, policies and documents concerning the the quality of services they offer

OBJECTIVES OF THE STUDY

 The general objective of the study is to develop a web application that can be used by the regional office in making decisions.

OBJECTIVES OF THE STUDY

- To develop a module that can measure and generate a report on the customer satisfaction for each functional unit in the regional office.
- 2. To develop a module that will track all the meetings held within the regional office.
- 3. To develop a module that will search the quality manual and return relevant information based on the input given by the user.

SCOPE AND LIMITATION

- The system is specifically created and to be used by the DOST IV-A regional office.
- The functionalities and specifications were provided by the regional office, and confidential data was also provided.

FUNCTIONAL REQUIREMENTS

- Authentication Module
- 2. Customer Satisfaction Measurement(CSM) Module
- 3. Management Review(MR) Module
- 4. Quality Management System Documentation(QMSD) Module
- 5. User privileges
 - a. Employee
 - b. Manager
 - c. Administrator
- 6. Logs

SYSTEM REQUIREMENTS

The system requires the following:

- A computer running Windows 8 or Ubuntu 14.04 or better
- Latest stable version of Mozilla Firefox or Google Chrome

SYSTEM REQUIREMENTS

The following were used for development:

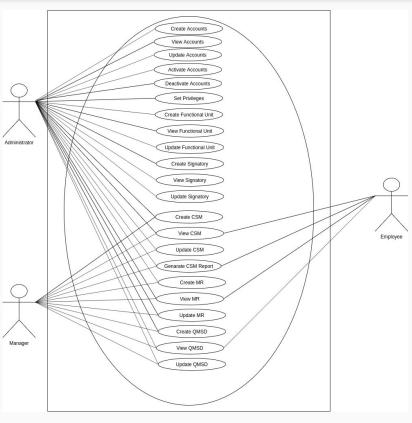
- Computer running on Ubuntu 16.04
- Latest stable version of Mozilla Firefox or Google Chrome

SYSTEM REQUIREMENTS

Tools for development:

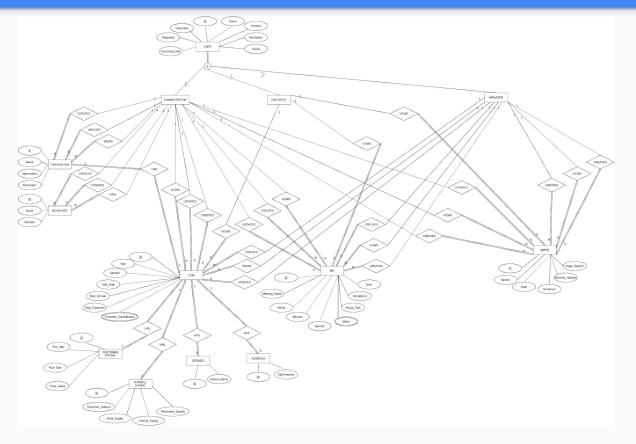
- MySQL 5.7.24
- Laravel 5.4.22
- Visual Studio Code

SYSTEM DESIGN AND IMPLEMENTATION



Use Case Diagram

SYSTEM DESIGN AND IMPLEMENTATION



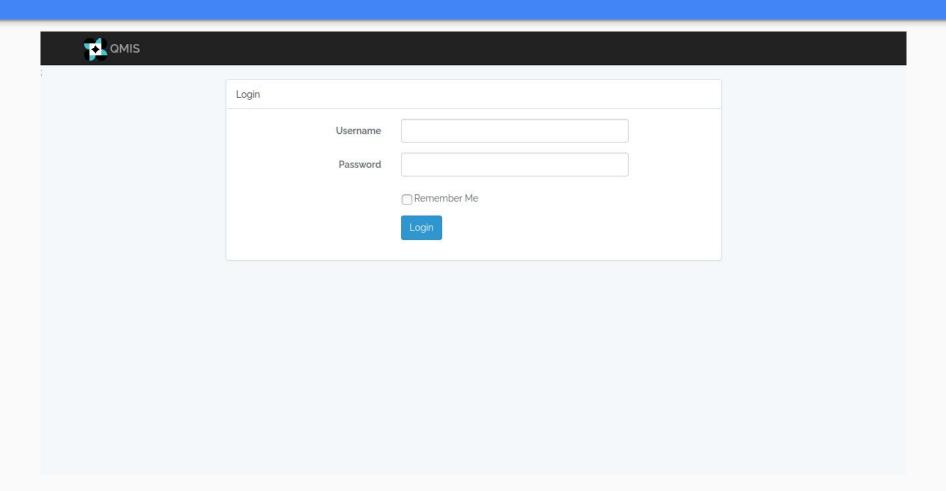
Entity Relationship Diagram

RESULTS AND DISCUSSION

LOGIN AND HOME PAGE

The user will be redirected to a simple homepage after successful authentication. The home page contains simple descriptions of the functionalities of the three different modules.

LOGIN PAGE



Welcome to Quality Management Information System



Customer Satisfaction Measurement

This module consist of list of Customer Satisfaction Measurements for each functional unit of the DOST-CALABARZON added by an authorized users which can be viewed and edited by an authorized user.





Management Review

This module consist of list of meetings held within DOST-CLABARZON office added by an authorized users which can be viewed or edited by authorized users.





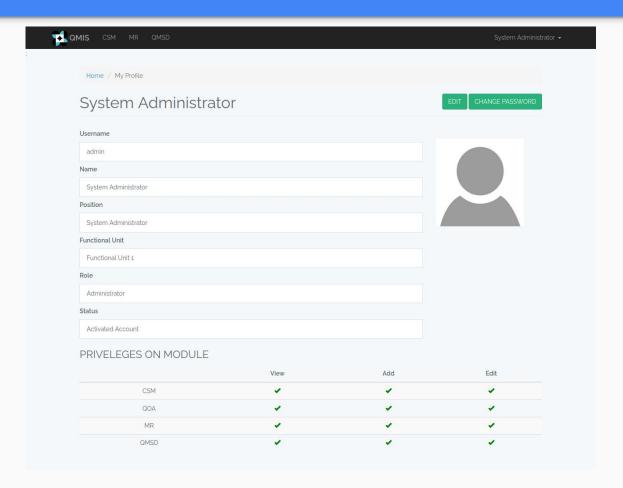
Quality Management System Documentation

This module consist of list of pages of the Quality Managament System Manual of DOST added by an authorized users which can be viewed or edited by authorized users...

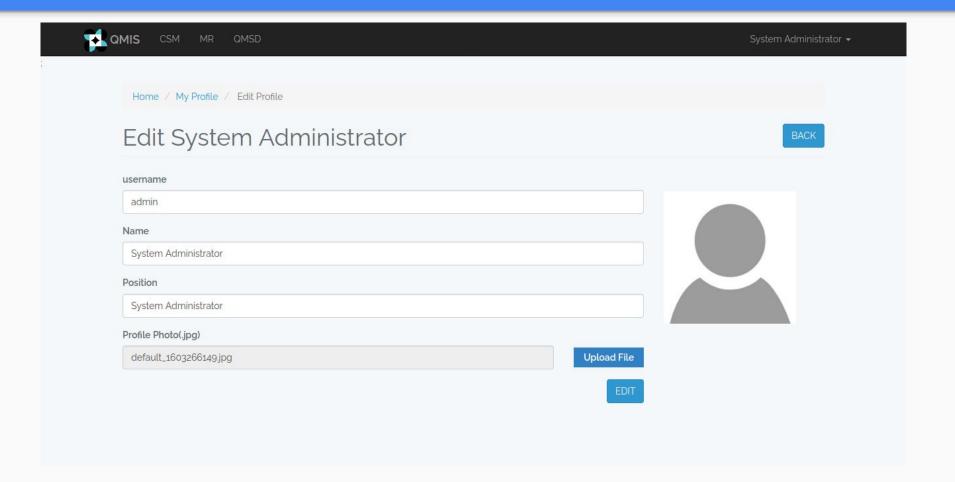
USER PROFILE

Every user can view and update their own profile. They can also change their own password.

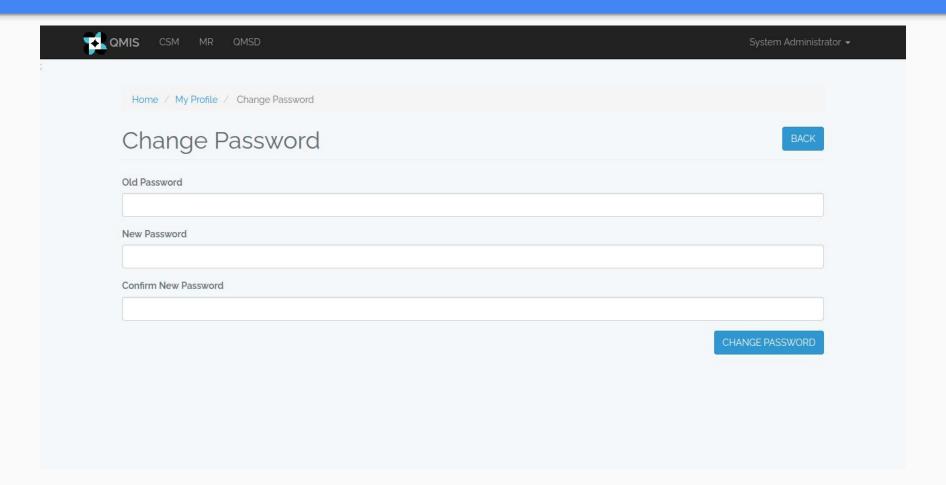
VIEW OWN PROFILE



UPDATE OWN PROFILE



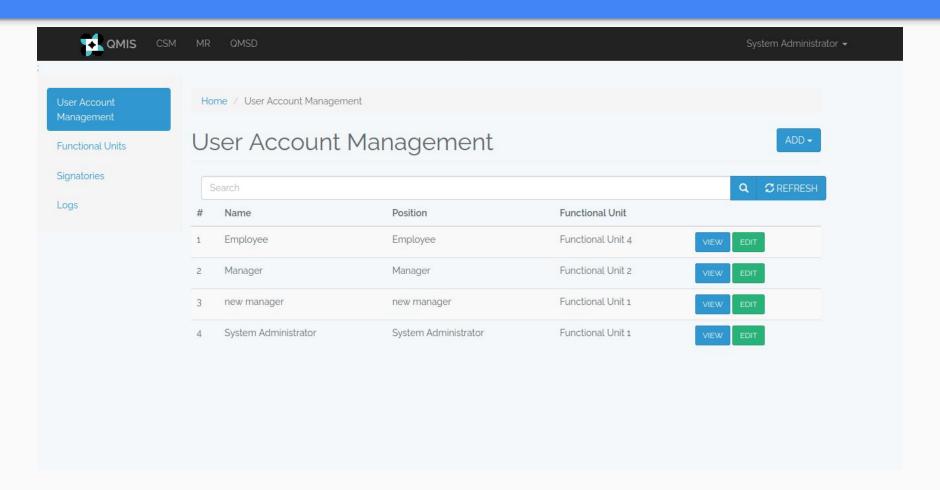
CHANGE OWN PASSWORD



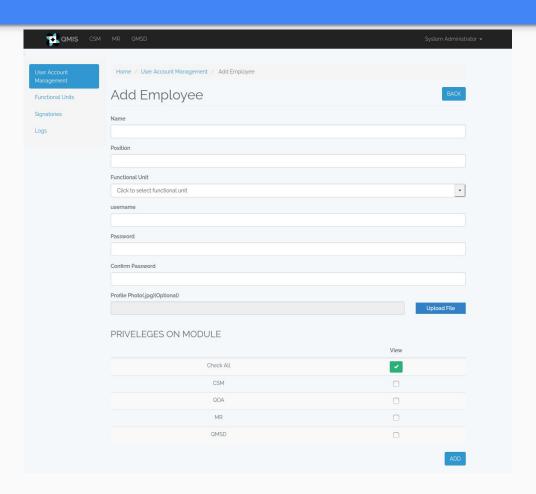
User Account Management

The administrator can add, view and update a user account. The administrator can forcefully change the password of an account in case the user forgot his/her own password.

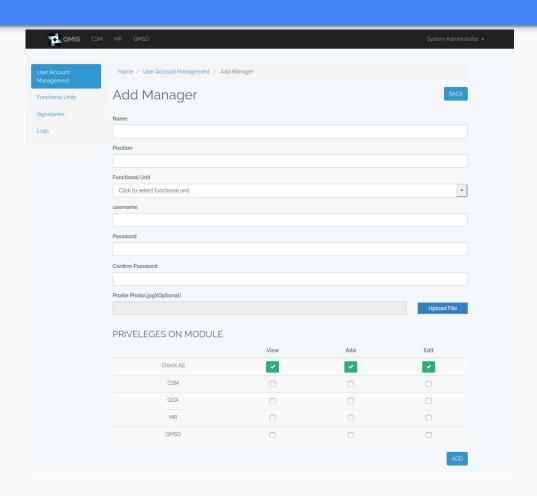
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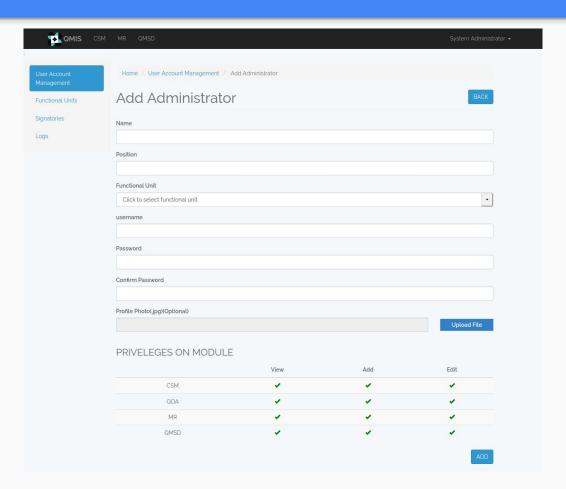
ADD EMPLOYEE



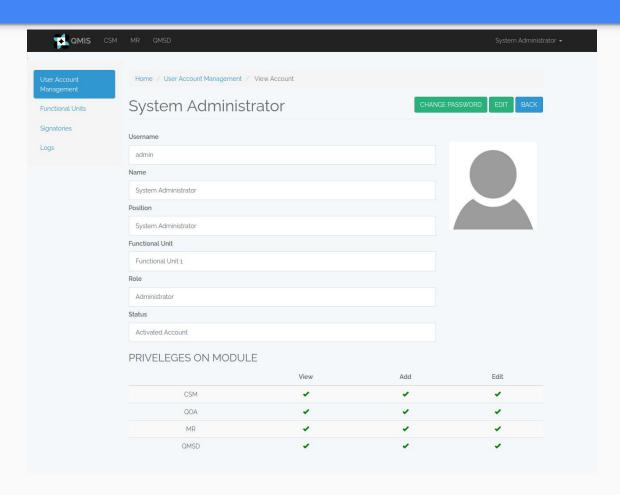
ADD MANAGER



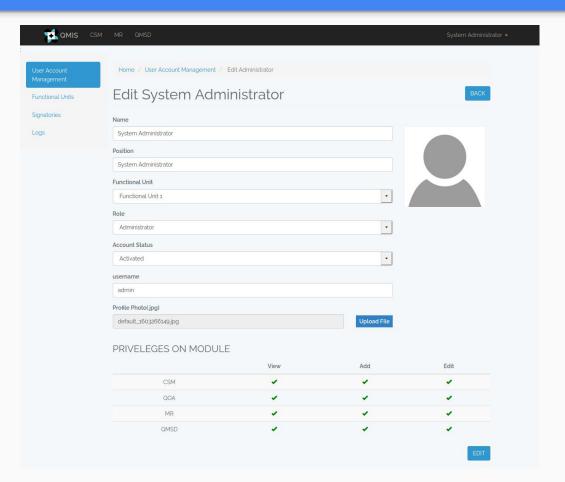
ADD ADMINISTRATOR



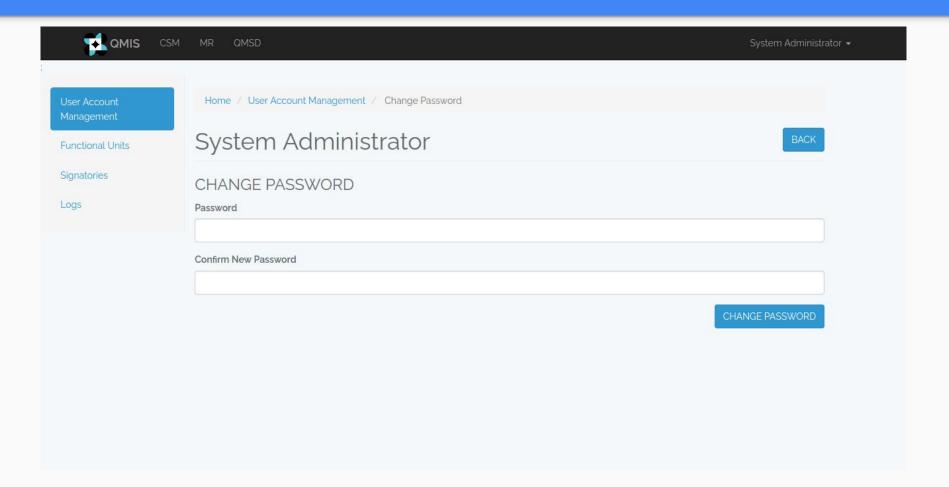
VIEW ACCOUNT



UPDATE ACCOUNT



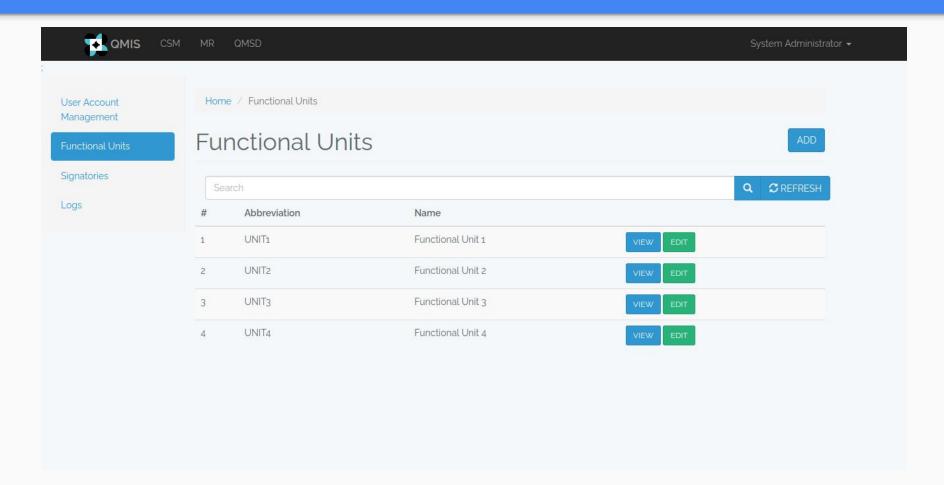
CHANGE ACCOUNT PASSWORD



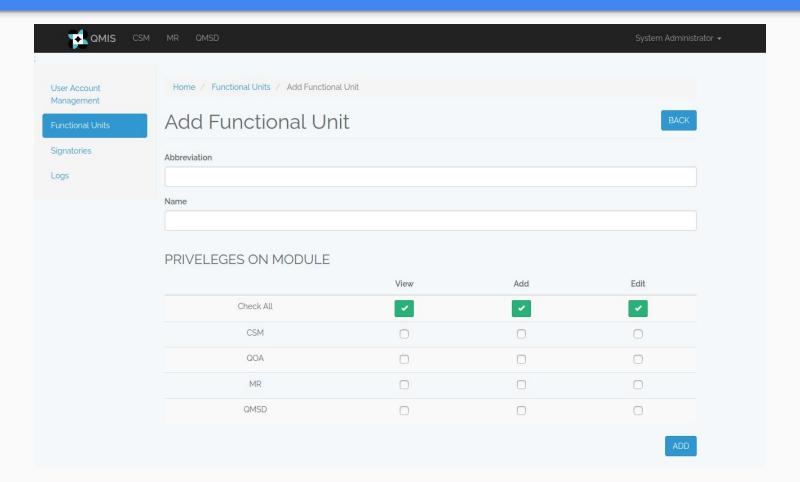
FUNCTIONAL UNITS

The administrator can add, view and update functional units. The administrator sets the privileges of each functional unit.

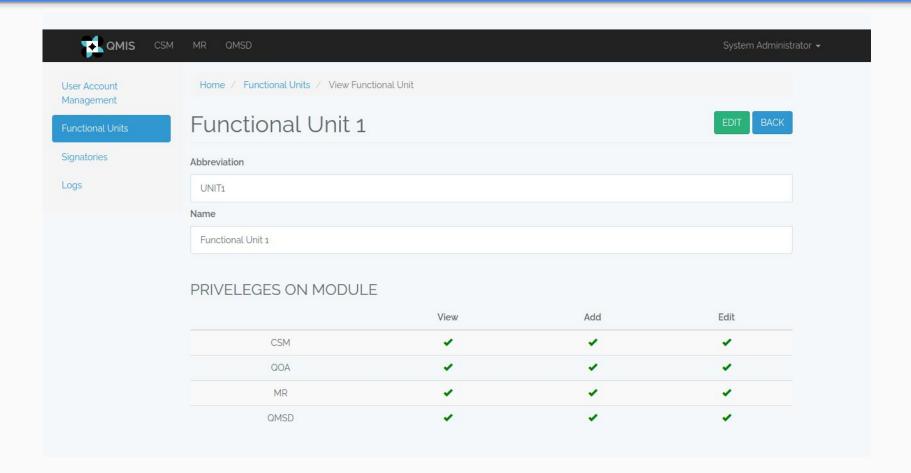
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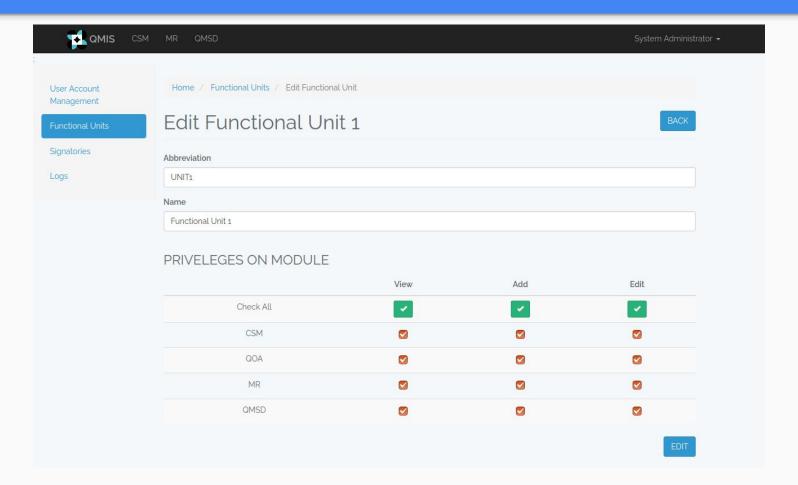
ADD FUNCTIONAL UNIT



VIEW FUNCTIONAL UNIT



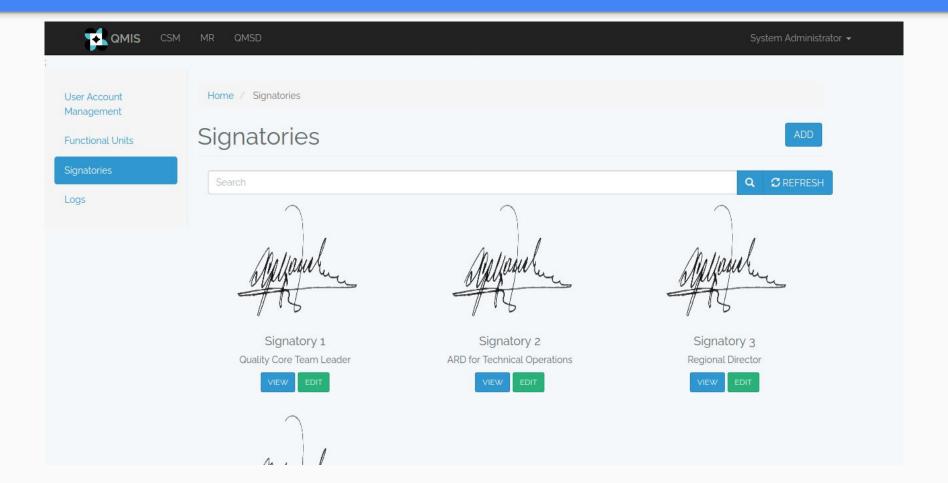
UPDATE FUNCTIONAL UNIT



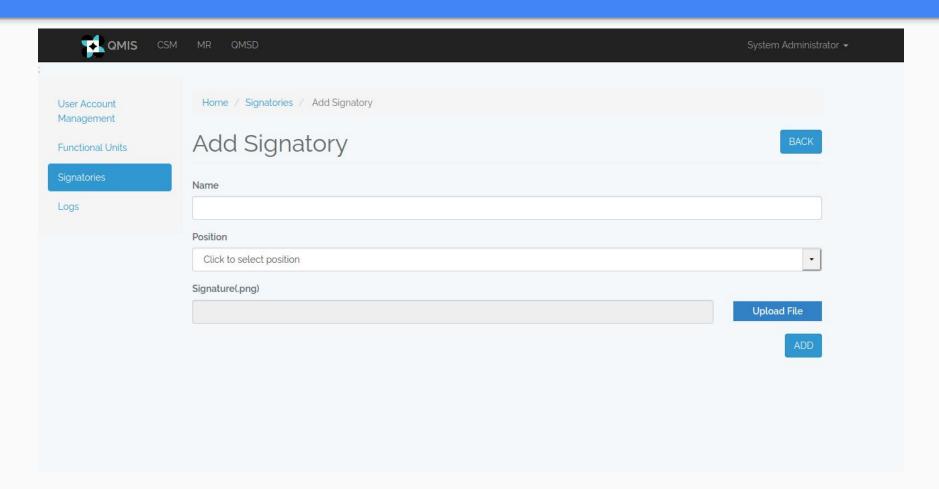
SIGNATORY

The administrator can add, view and update signatories.

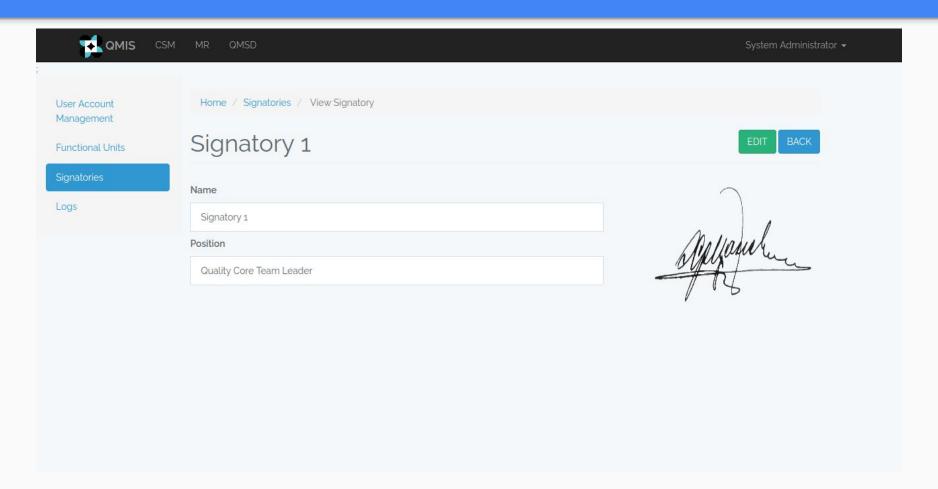
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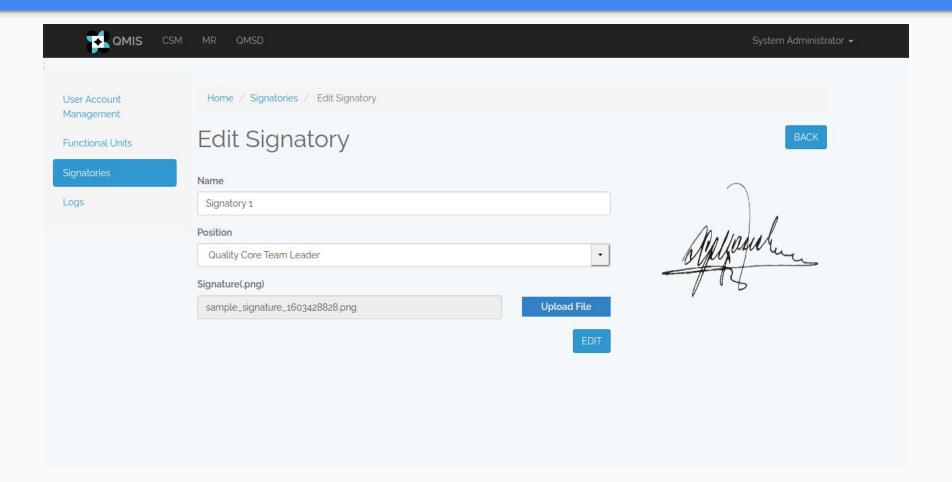
ADD SIGNATORY



VIEW SIGNATORY



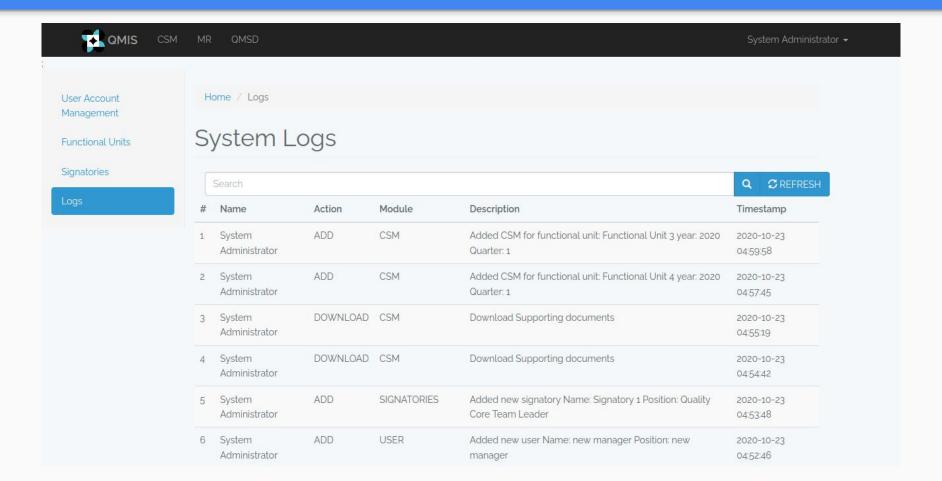
UPDATE SIGNATORY



LOGS

The administrator can view and search logs.

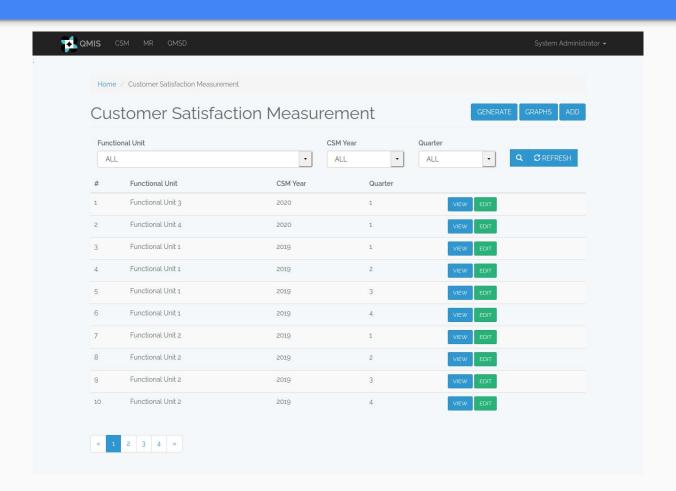
LOGS



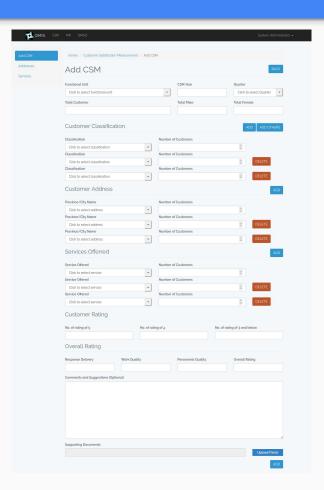
CUSTOMER SATISFACTION MEASUREMENT(CSM) MODULE

Authorized users can add, view and update an entry in the CSM Module. Authorized users that can view an entry in the CSM Module can download the supporting documents uploaded in the entry.

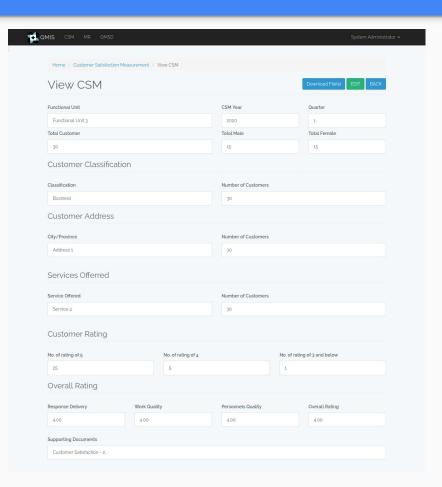
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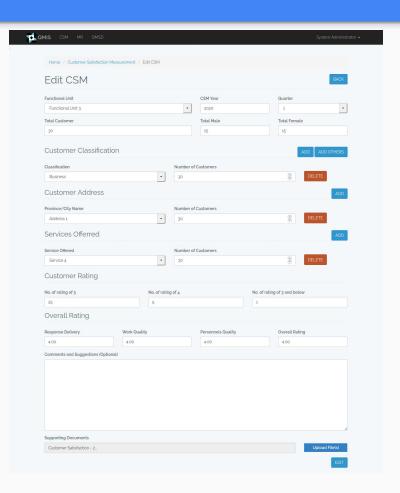
ADD ENTRY TO THE CSM MODULE



VIEW AN ENTRY IN THE CSM MODULE



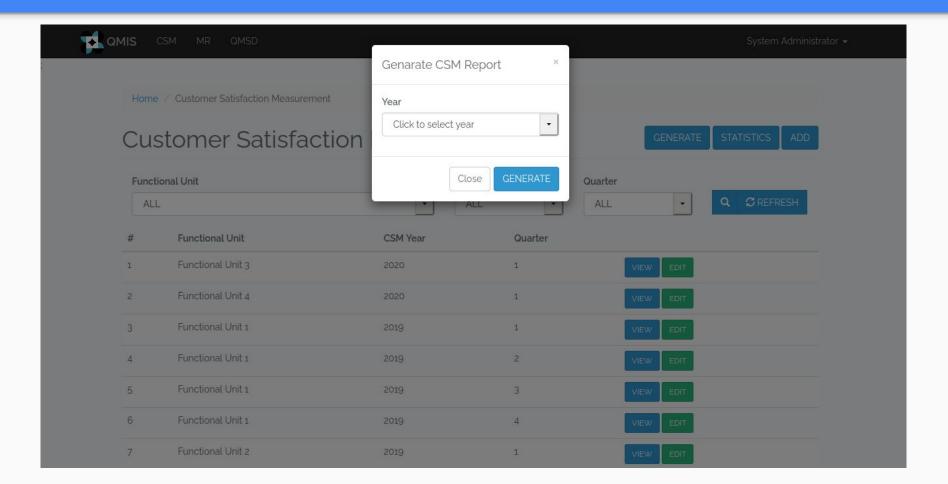
UPDATE AN ENTRY IN THE CSM MODULE



CUSTOMER SATISFACTION MEASUREMENT(CSM) MODULE

Users can generate a report that contains the overall summary about the satisfaction rating of the different functional units, the satisfaction rating compared to the previous year and the five year trend of the satisfaction rating of every functional unit.

GENERATE CSM REPORT



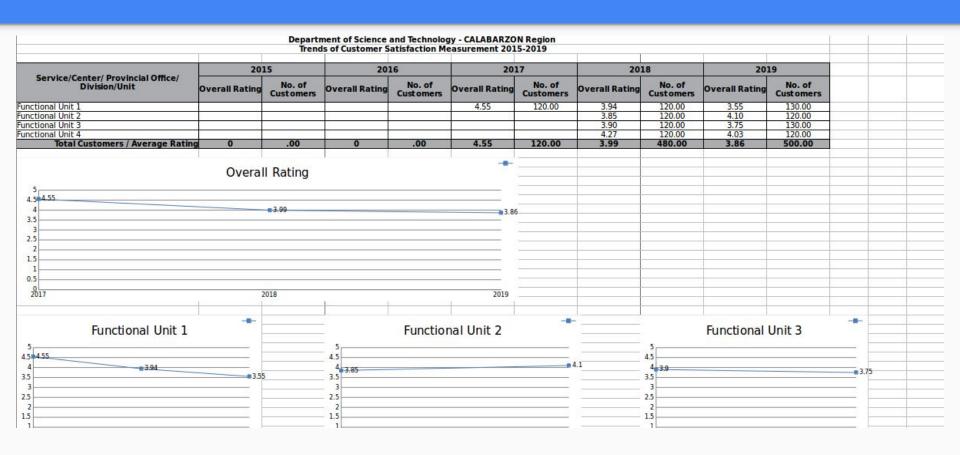
SAMPLE OVERALL SUMMARY REPORT



SAMPLE COMPARISON REPORT

n of Custome	er Satisfaction Measuremer	nt 2018 & 20	019	100
2019		2018		
Overall Rating	Adjectival Rating	Overall Rating	Adjectival Rating	Standing
3.55	Very Satisfactory	3.94	Very Satisfactory	-
4.10	Very Satisfactory	3.85	Very Satisfactory	+
3.75	Very Satisfactory	3.90	Very Satisfactory	-
4.03	Very Satisfactory	4.27	Very Satisfactory	
3.86	Very Satisfactory	3.99	Very Satisfactory	
Noted By:	Mellasuku		Evaluated By: Applage	Signatory 3
_6				Regional Directo
	Overall Rating 3.55 4.10 3.75 4.03 3.86	Overall Rating 3.55 Very Satisfactory 4.10 Very Satisfactory 4.03 Very Satisfactory 4.03 Very Satisfactory 4.03 Very Satisfactory Very Satisfactory And Very Satisfactory Satisfactory And Very Satisfactory And Very Satisfactory Signatory 2 ARD for Technical Operations	Overall Rating Adjectival Rating Overall Rating 3.55 Very Satisfactory 3.94 4.10 Very Satisfactory 3.85 3.75 Very Satisfactory 3.90 4.03 Very Satisfactory 4.27 3.86 Very Satisfactory 3.99 Noted By: Signatory 2 ARD for Technical Operations	Overall Rating 3.55 Very Satisfactory 3.94 Very Satisfactory 4.10 Very Satisfactory 3.85 Very Satisfactory 3.75 Very Satisfactory 4.03 Very Satisfactory 4.27 Very Satisfactory 3.86 Very Satisfactory 3.99 Very Satisfactory Very Satisfactory Signatory ARD for Technical Operations Adjectival Rating Adjectival Rating Adjectival Rating Evaluated Rating Adjectival Rating Adjectival Rating Adjectival Rating Adjectival Rating Evaluated Rating Adjectival Rating Adjectival Rating Adjectival Rating Adjectival Rating Adjectival Rating Adjectival Rating

SAMPLE FIVE YEAR TREND REPORT



CUSTOMER SATISFACTION MEASUREMENT(CSM) MODULE

Users can view yearly CSM data graphically. It shows the overall satisfaction rating from the 1st to 4th quarter of the year, the ratings given by the customers to the functional unit, the distribution of the different services availed by the customers and lastly the distribution of the addresses to know where the customer came from.

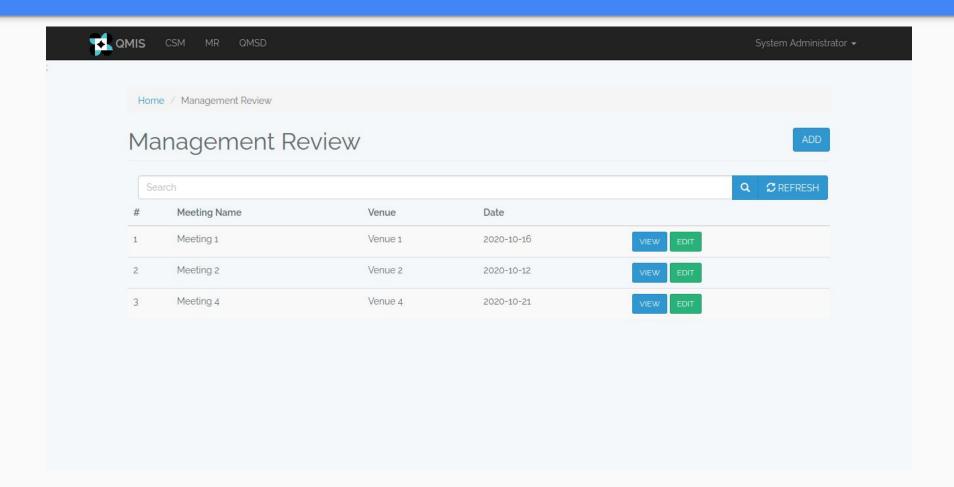
GRAPHS



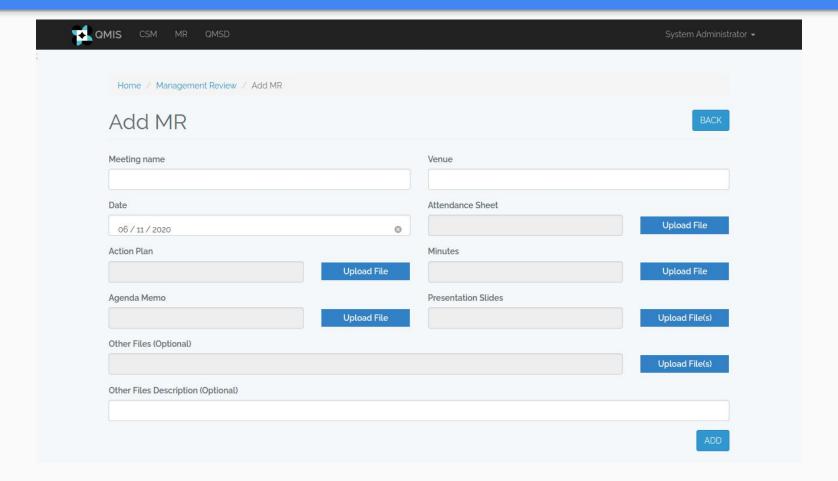
MANAGEMENT REVIEW(MR) MODULE

Authorized users can add, view and update an entry in the MR Module. Authorized users that can view an entry in the MR Module can download the supporting documents uploaded in the entry.

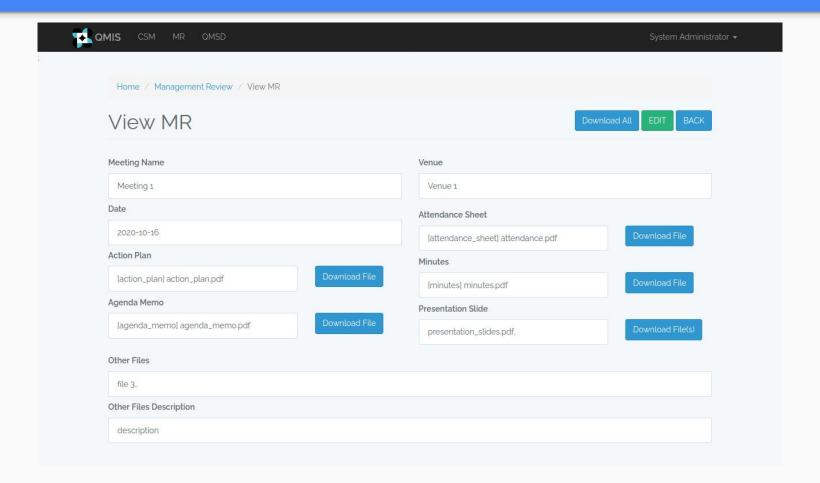
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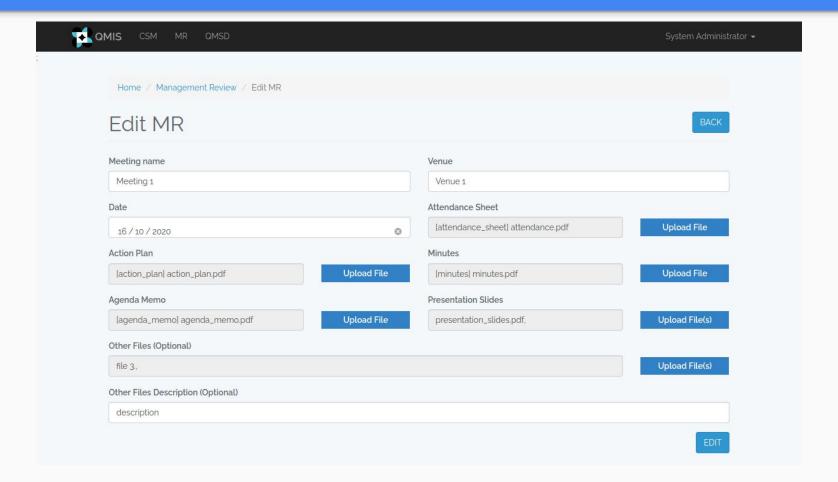
ADD ENTRY TO THE MR MODULE



VIEW AN ENTRY IN THE MR MODULE



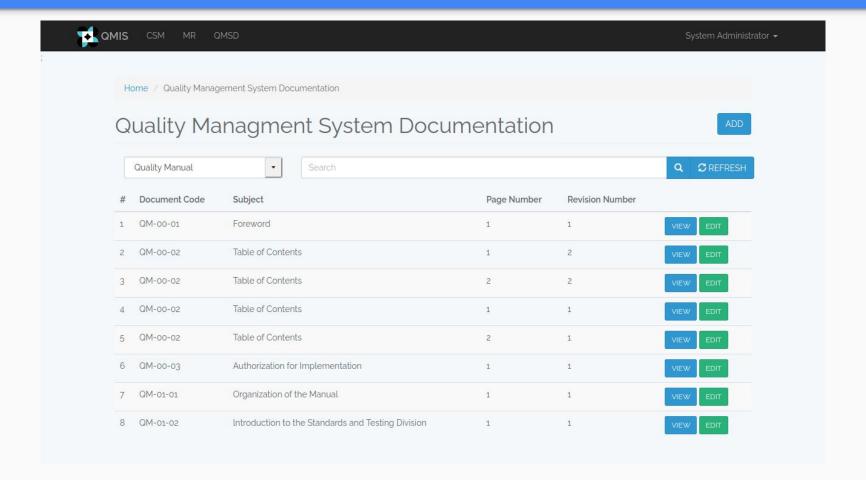
UPDATE AN ENTRY IN THE MR MODULE



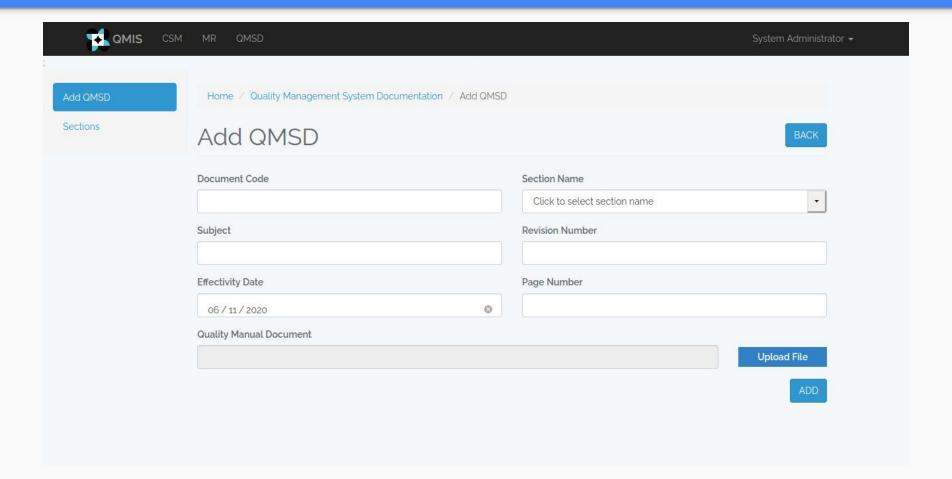
QUALITY MANAGEMENT SYSTEM DOCUMENTATION(QMSD) MODULE

Authorized users can add, view and update an entry in the QMSD Module. Authorized users that can view an entry in the QMSD Module can download the supporting documents uploaded in the entry.

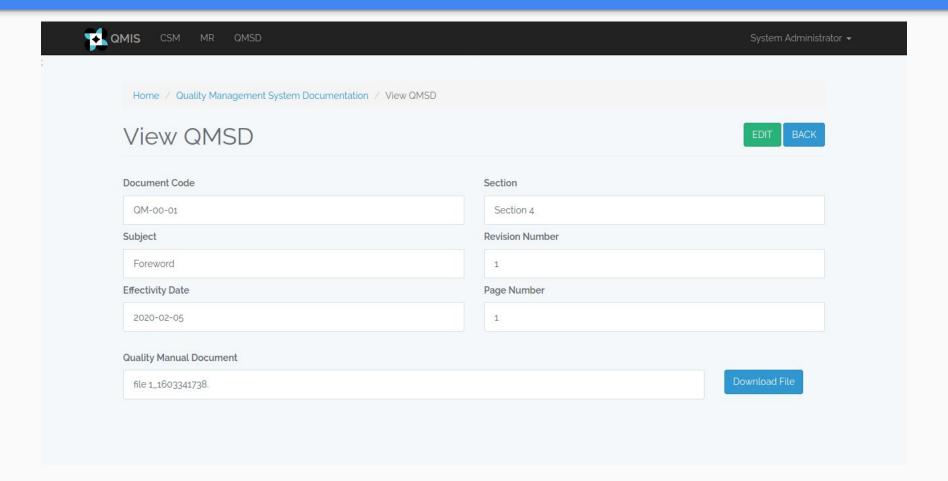
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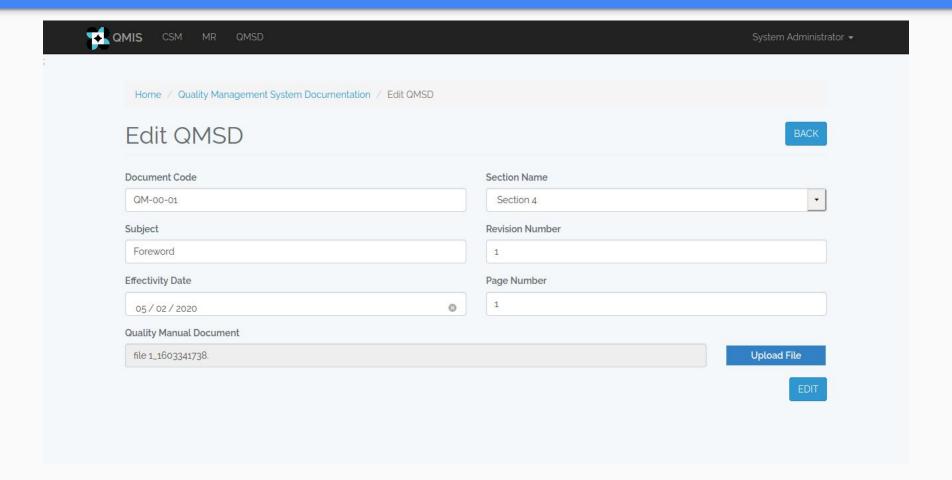
ADD ENTRY TO THE QMSD MODULE



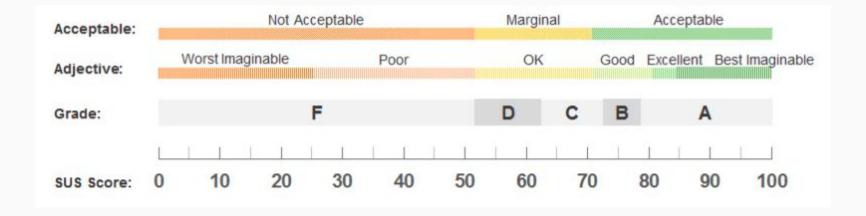
VIEW AN ENTRY IN THE QMSD MODULE



UPDATE AN ENTRY IN THE QMSD MODULE



SYSTEM USABILITY SCALE(SUS) EVALUATION



The information system got a raw score of 62.5 from Mr. Francis Barquilla, MIS Unit director. Based on the SUS score measurement, the score gets a grade of 'D', an adjectival rating of 'OK' and an acceptability rating of 'Marginally Acceptable'.

SUMMARY AND CONCLUSIONS

- The developer was able to develop Quality Management Information System for the DOST IV-A regional office.
- The developer was able to implement the Customer Satisfaction Measurement(CSM) Module that was able to collect quarterly customer satisfaction rating of different functional units.

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SUMMARY AND CONCLUSIONS

- The developer was able to implement the Management Review(MR) Module that was able to record all the meetings held within the organization.
- The developer was able to implement the Quality Management System Documentation(QMSD) Module that acts as the repository of the the quality manual used by the regional office.

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RECOMMENDATIONS

The system can be further improved by adding a graphical representation that contains the yearly overall rating of all the functional units and its five year trend for easier data comparison without generating a document.

RECOMMENDATIONS

The system can also be improved by adding email or phone number to send notifications whenever there is a new entry to the MR Module or there are revisions on the quality manual used by the regional office

RECOMMENDATIONS

The system can also be improved by archiving the previous versions of the rules and regulations of the quality manual used by the regional office.

THANK YOU!