

Course: COMP1640

Enterprise Web Software Development

Team: Tech Army V-02

Submitted To:

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Date of Submission: 10th April 2018

Team Members:

Team Members			
S/N	Greenwich ID	Member's Name	Role
1	001031936	Nusrat Jahan Juthi	Information Architect
2	001031944	Fahimul Islam	Database Designer
3	001031584	Foysal Ahammad	Programmer and Web Designer
4	001032086	Md. Jhadul Islam Rakib	System Tester

Application Live URL: <https://foysal.xyz>

Screencast URL: <https://www.youtube.com/watch?v=-22TdiHteSc>

Repository URL:
https://drive.google.com/drive/folders/1hFVYip1W18t9BzVGIZgi0xzb_8Z5hnYT

Credentials:

ideaBook		
Group	Email	Password
Quality Assurance Manager (QAM)	Foysal.int@gmail.com	123456
Quality Assurance Coordinator (QAC)	Foysalahammed055@gmail.com	123456
Student	Foysal35@diit.info	123456
Student	Sajid35@diit.info	123456
Student	Samir35@diit.info	123456

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Introduction:

This system name is ideaBook. This is a secure web-enabled role bases system for collecting ideas for improvement from students in a large University. There are three types of users. Those are Quality Assurance Manager, who is responsible to oversee the process. A quality assurance coordinator who is responsible for managing the process for their department and the students who will submit idea for particular categories. We named our group as "Tech Army V-02". There are four members in our group, each member has a specific role in building this system. We developed this system following Agile scrum methodology and we have done it successfully. We tried to meet all the requirements and provide some extra features. I had played programmer and UI designer roles. So I handled technical and design aspects.

Evaluation of Product and process:

Key features of the system

ideaBook meets the all useful prerequisites as situation demand. All of the features of ideaBook work effectively. All of the features of ideaBook are given bellow-

- QA Manager can launch a new category with set closure date and final closure date.
- QA Manager can edit category information any time. But delete only if have not used this category.
- Users can give the thumbs up and thumbs down for any idea, but only one for each idea.
- Students can submit an idea and comment as anonymous, but the administration can see all information.
- Students can upload multiple files with idea as supporting documents if necessary.
- The category will be invisible the category list after expired the closure date. Students can't post any idea in this category.
- After expiring the final closure date of the category all of those categories ideas comment sections will be hidden.

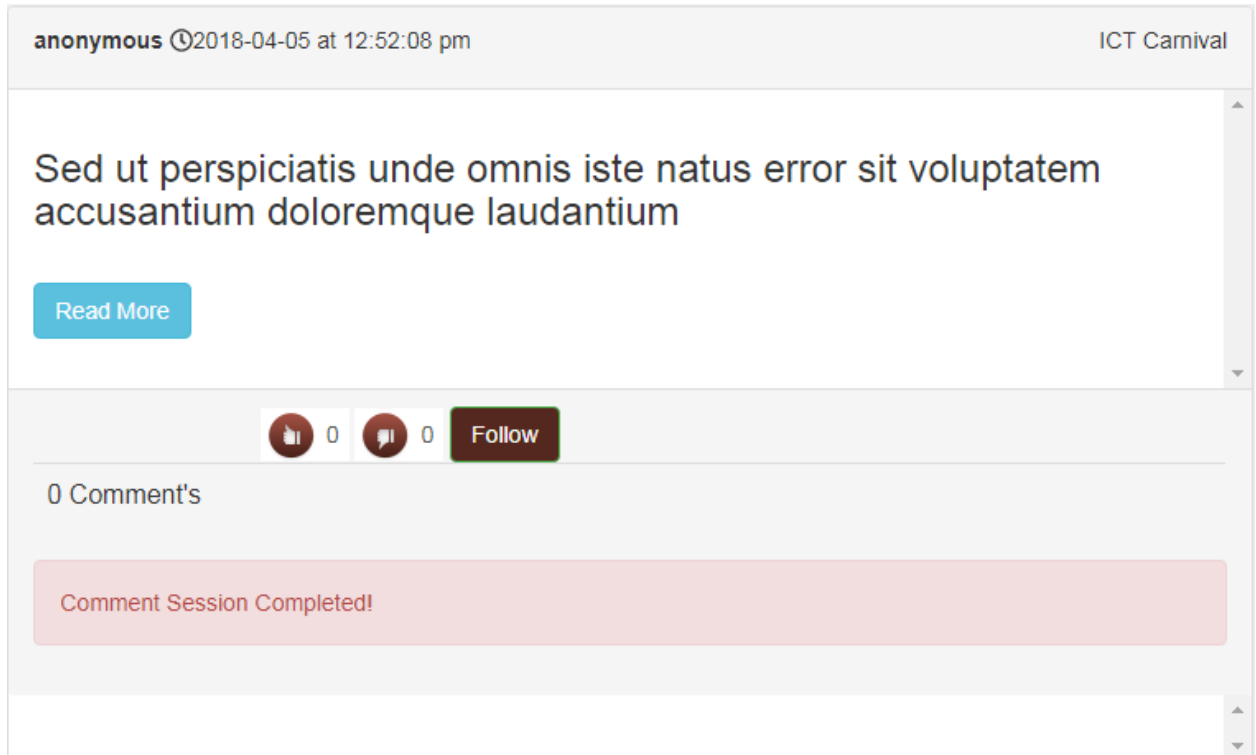


Figure 1 Comment section is hidden

- Any inappropriate ideas can be investigated by the administration.
- Idea category will be disabled after the closure date for submitting a new idea, but comments can continue until a final closure date.
- The Department's QA Coordinator get a notification email for posting a new idea from his/her responsible department.



Notification from ideaBook

One New Idea Posted From Your Department.

Idea Title : E-learning help as a source of information,

Idea Body :

E-learning sources provide best study materials which is very helpful for the students' knowledge building process..

MY ACCOUNT

Figure 2 Email notification to department QAC for posting a new idea

- Staffs can view all statistics and exception reports.
- The idea author gets an email notification whenever a comment is submitted to any their ideas by a student.



Notification from ideaBook

One New Comment Posted in Your Idea.

Identity : Identified,

Comment Body :

It's a good idea, I appreciate it.

MY ACCOUNT

Figure 3 Email notification for comment.

- System administrator (QAM, QAC) can view the most popular ideas, most viewed ideas, latest ideas and comments and anonymous ideas and comments.
- The system automatically Deactivate students account after completing the academic session.
- QAC can delete or block any idea if necessary.
- The system administrator (QAM) can deactivate any student user account if they think this account should not in this system.
- Quality assurance manager can deactivate staff (QAC) account if necessary.
- A statistical analysis report like numbers of idea each department, percentage of idea each department and number of contributors of each department are available for staffs.
- Each of the users of the system can create a conversation with anyone.
- Users can get runtime notifications for receiving messages.
- Users can follow any idea by pressing a Follow button., also unfollow that.
- Users can see his own post, followed post from visiting timeline.

Strength of our system

IdeaBook has some strong techniques and features that make it efficient and secured. The strangeness of ideaBook is given below:

- The system can prevent any SQL injection.
- The system is capable to prevent brute force attack.
- ideaBook send an email to users for every login with an IP address and client system details.



Notification from ideaBook

Hi

We detected a login into your account from...

IP Address :203.95.220.134

Browser :Google Chrome -65.0.3325.

Operating System :Windows

Date :2018-03-28

Time :12:13:14 pm

If this is not you, please ensure your account security as soon as possible.

MY ACCOUNT

Figure 4 Email notification for login.

- The hacker can't run any script from outside.
- The system script not editable from outside.
- User access control process is very efficient.
- The system is capable to prevent any bot or robot attack.

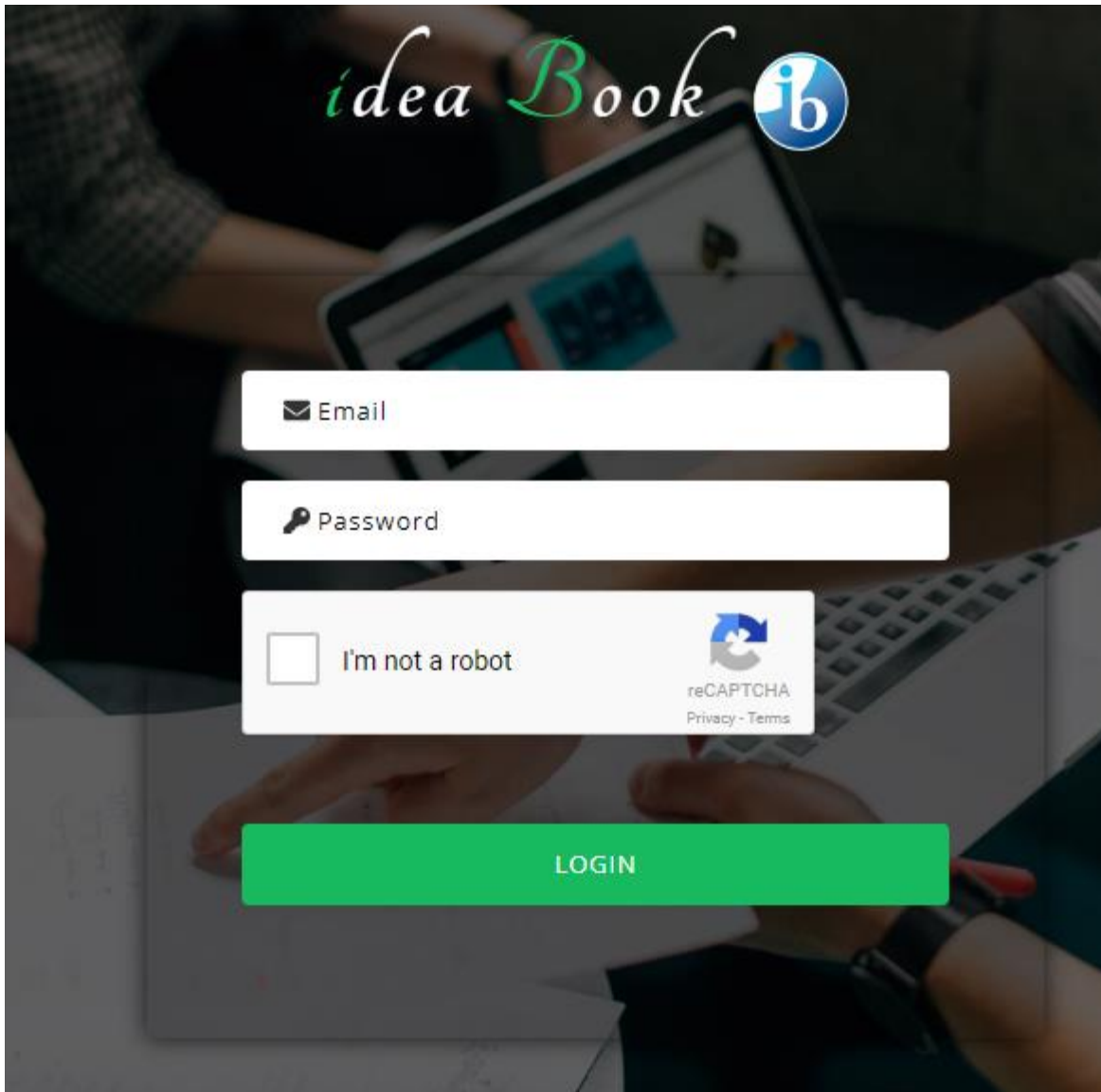


Figure 5 The system will check user is a robot or human.

- The system interface is responsive.

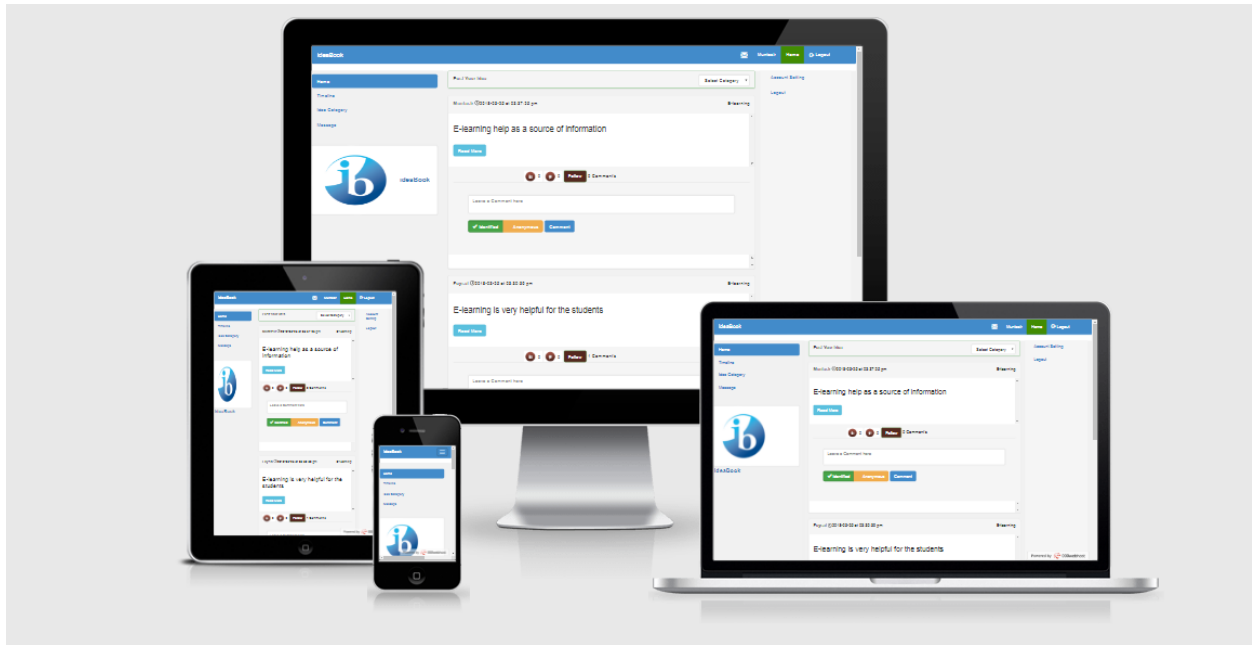


Figure 6 Responsive Students interface.



Figure 7 Responsive admin interface.

- This system interface will be easy to learn.
- Validation rules are set into client side & server side script because the client side script can be modified, then the server side script can catch any invalid input.
- The system has well navigation menu.
- The system database is fully normalized.
- The student can't access admin dashboard pasting admin side URL.
- QAC & QAM can see a statistical report in graphical charts.

Department wise Overall Contribution

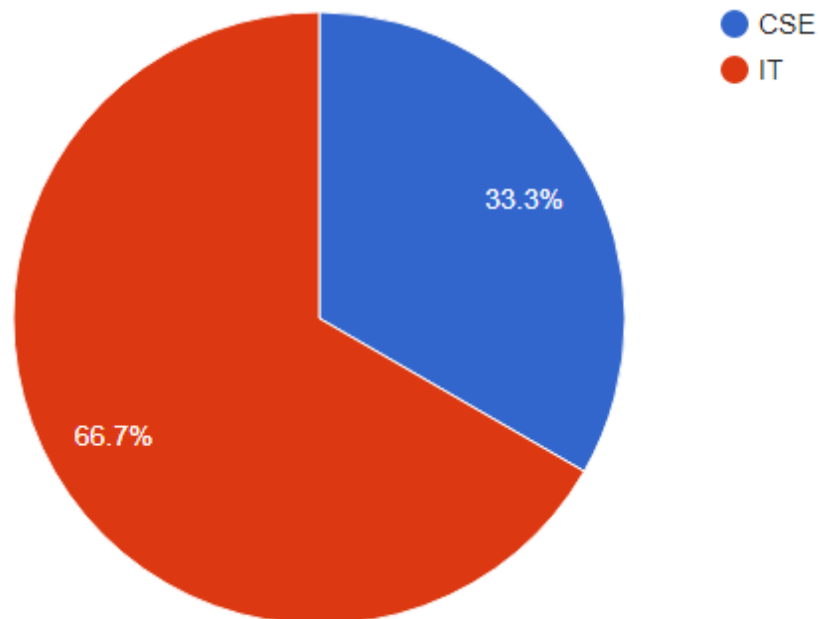


Figure 8 The system provides a graphical report.

- The system provides runtime message notifications.



Figure 9 Showing messages notification.

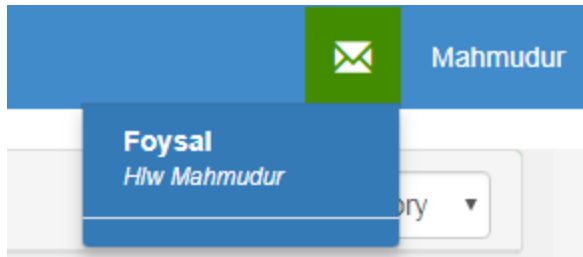


Figure 10 Showing messages list.

Weakness of the system

There is some weakness in this system, these are given below:

- System users can't modify their personal information except password.
- After post any idea and comment system take a refresh to show this.

Further Development:

This yearbook system is working perfectly as a requirement. But system development is a continuous process where required update old technology to new technology. Work to protect system from new threats. Some issues which can be take a place for further development.

- Using AJAX form post ideas and comments.
- The system will be able to provide live notification to users.
- The password recovery feature will be added to this system.

Methodology Used:

There are so many software development methodologies. Agile is one of them. Agile software development is a group of software development methodologies. Scrum is a subset of Agile methodology. In this software development, we used agile scrum methodology. It's enables collaboration of teamwork.

We divide our tasks between team members. We played many roles like System Architect and Analyst, Database Designer, UI Designer, Programmer and Tester for developing this system successfully. We make group meeting for discussion completed works and set next work.

Evaluation of Team:

This web based system developed by four members where everyone played different roles. We had developed it successful because of our hard work. At the start of this development process we assigned a member as a system architect and analyst,

one for database design, one for design UI and programming and one for system testing.

System architect and analyst done the hard work to find out functional and non functional requirements. The database designer worked to make a fully normalized ERD for minimize data redundancy. After completing every sprint as a programmer, I send developed part of QA/ Acceptance Tester to test this sprint to ensure it developed as required. I want to say without team members' collaboration and individual works of team members we can't do it successfully.

Team members' efforts can be evaluated by following some criteria.

Criteria	System Architect and analyst	Database Designer	QA/ Tester	Programmer & UI Designer
Technical Skill	Poor	Excellent	Poor	Excellent
Contribution on key requirement	Poor	Excellent	Poor	Good
Core skill in his area	Excellent	Excellent	Excellent	Good
Communication Skill	Excellent	Good	Good	Excellent
Availability	Poor	Excellent	Excellent	Excellent
Adaptability	Good	Good	Good	Good
Team Collaboration	Good	Good	Good	Excellent
Overall Performance	Good	Excellent	Good	Excellent

Self Evaluation:

Own Efforts

In system development team I played UI designer and Programmer role. But I have to focus on other members work because I was the team leader of this group. At first we work together to understand this system requirements. I also collaborate with database administrator in finding out better solutions to make a perfect ERD for this system. I worked to make a responsive user interface which will be easy to learn to the users. I hope the user can understand this system UI at first look. I have used HTML5 for creating UI structure, Bootstrap as CSS framework to make it responsive, JQuery and JavaScript for field validation and run some function in client side. After completing development process tester start the system testing process to ensure that system is working perfectly and found some bugs and I fixed it. The system analyst confirmed that this system met the all user's requirements and work properly.

Lessons Learnt:

This assignment was a group assignment so I have to work with a team for completing this assignment. At first I learned how to work with a team and collaborate with team members. I know most of the project done by team work in real life working field. So it was a great opportunity to know how it's done. I also learned some new techniques by developing this system like Google chart, Google recaptcha and like and unlike post using PHP and JavaScript and how to work following the agile scrum methodology.

Conclusion:

This ideaBook is a sub-system of University portal or University management system. This system gets some important data from the main system like users' information. This sub-system is just for gathering students' idea about some selected topics. University staffs' can observe students' activities and manage students posts' and comments'. We meet all requirements to make it successful.

At the end, I want to say thanks to all of my team members. I am really happy to work with them. We enjoyed some fantastic moments while doing this assignment. We worked like as friends. At last I want to say i learnt some important things while developing this system. This knowledge will be helpful in my future work.

Appendices

Appendices A User Interface Design

The wireframe interface model of this proposed system:

The wireframe shows a login form with a title 'Please Sign In' at the top. Below the title are two input fields: 'E-mail' and 'Password'. Under the 'Password' field is a checkbox labeled 'Remember Me'. At the bottom of the form is a large button labeled 'Login'.

Figure 11 Users login interface

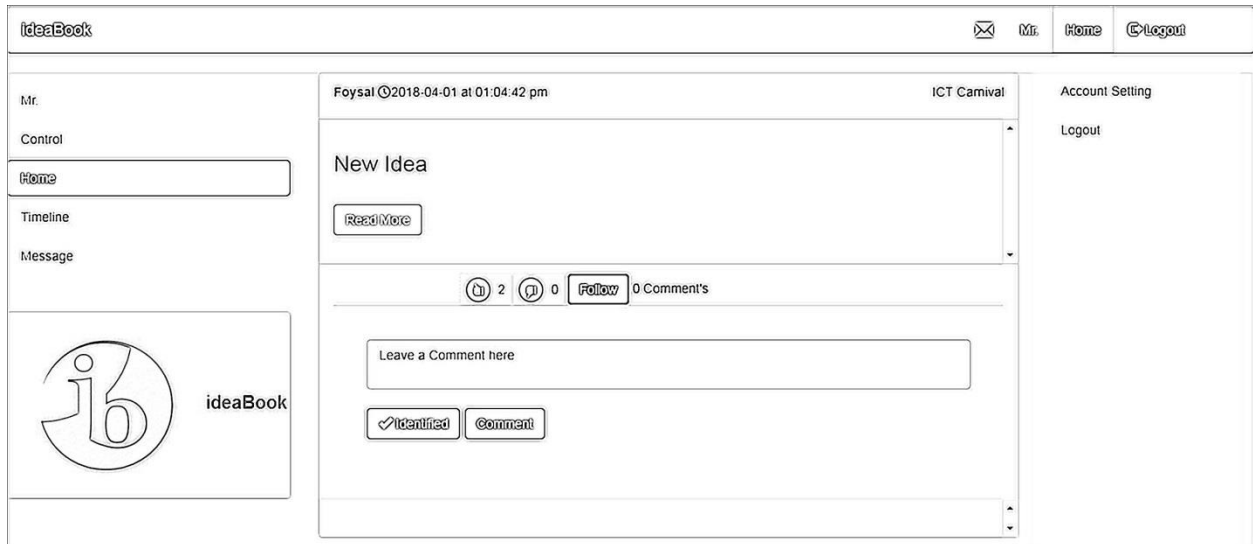


Figure 12 idea showing in the timeline view

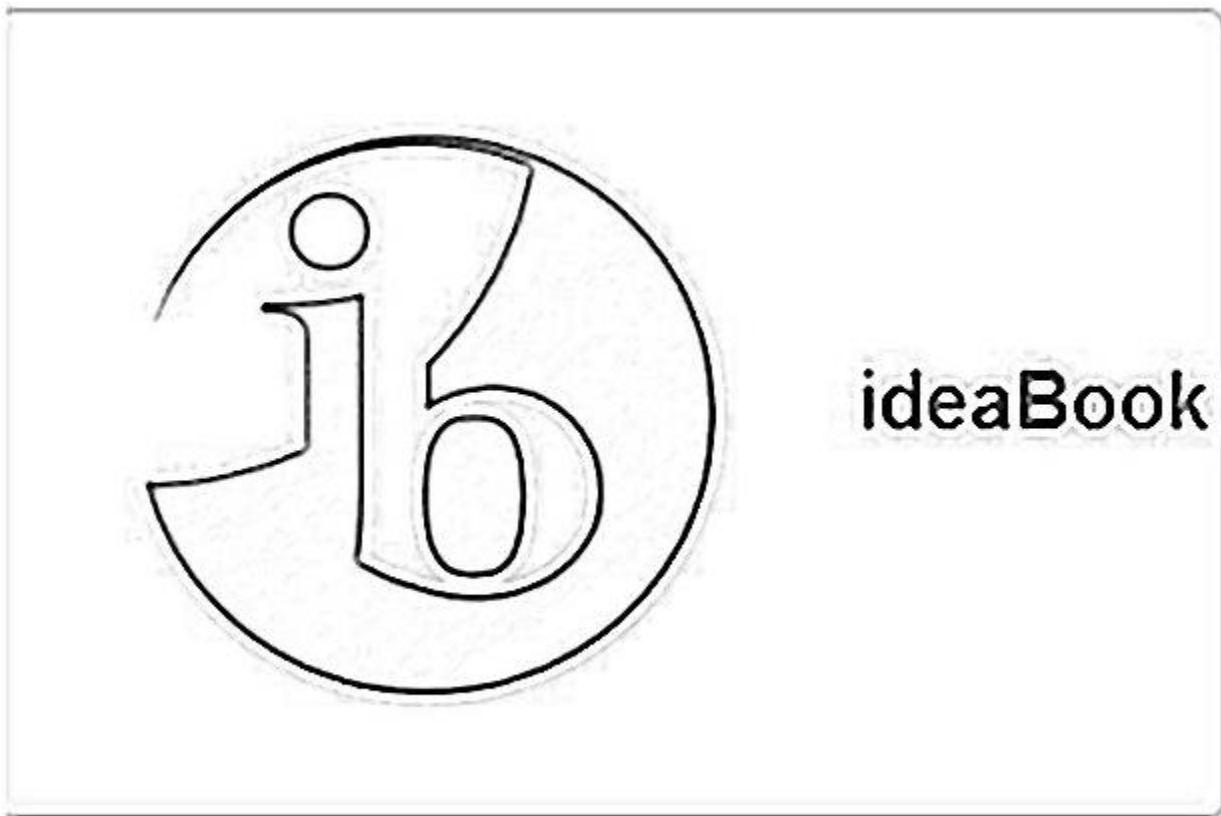



Figure 13 Proposed system's logo

Staff


Students List



Foyisal Ahammad

IT


Message



Mahmudur Rahman

IT


Message



Muntasir Hasan

CSE

Message



Najiul Tanvir

BBA

Message

Foyisal

No Conversation

Type Message ...

Send

Figure 14 Message send and view

Launch Category

Name

Category Name

Closure Date

Closure Date

Final Closure Date

Final Closure Date

Launch

On Going Category

Show 10 entries

Search:

Category Name:	Closure Date	Final Closure	Details
ICT Carnival	2018-04-20	2018-04-30	Details
Category Name:	Closure Date	Final Closure	Details

Showing 1 to 1 of 1 entries

Previous

1

Next

Figure 15 Category info ass and view

Appendix B: Tools Usages

Language

- PHP
- Javascript

{ 14 }

Framework

- Bootstrap

Libraries

- JQuery
- DataTables
- Gstatic
- Google recaptcha

Database

- Mysql

Appendices B: Responsive Application

This ideaBook application is developed by taking into account of all device screen sizes, including smart phone, tablets, desktop computer and etc. This responsive interface was a system requirement. Using CSS framework Bootstrap for make responsive interface to run the application on all devices. The user interface screenshot given below:

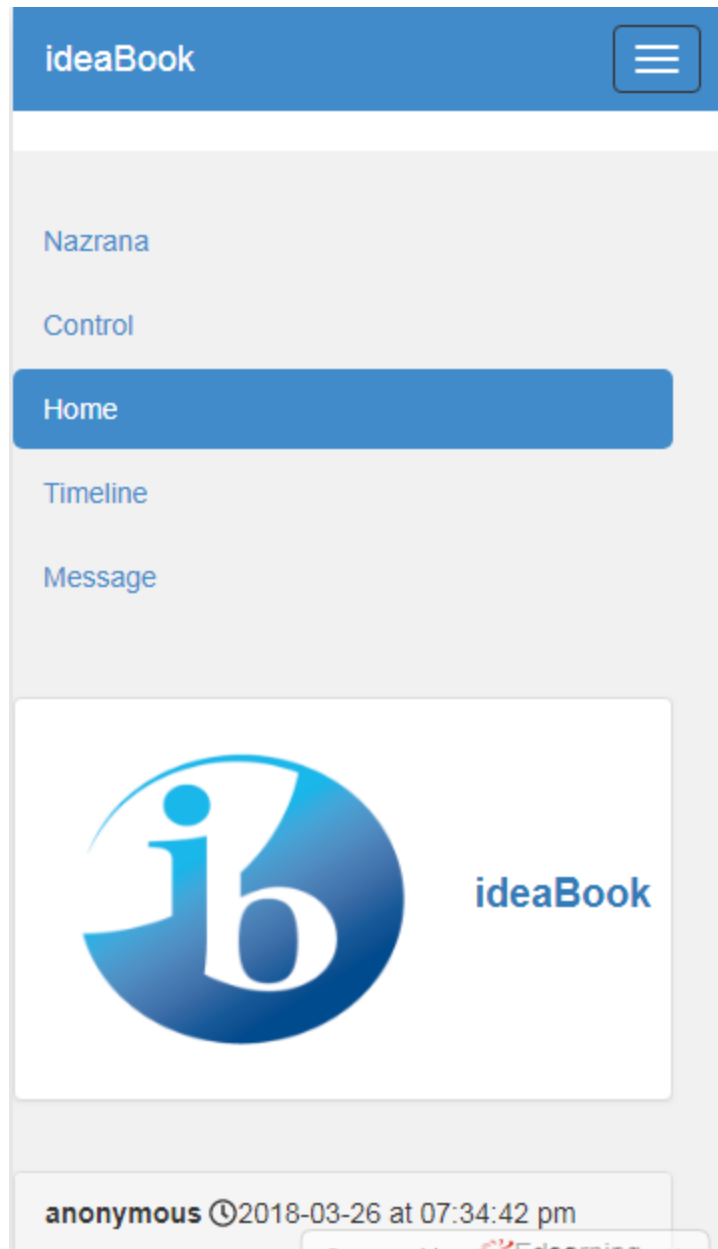


Figure 16 Samsung Galaxy S3-7 ideaBook timeline view

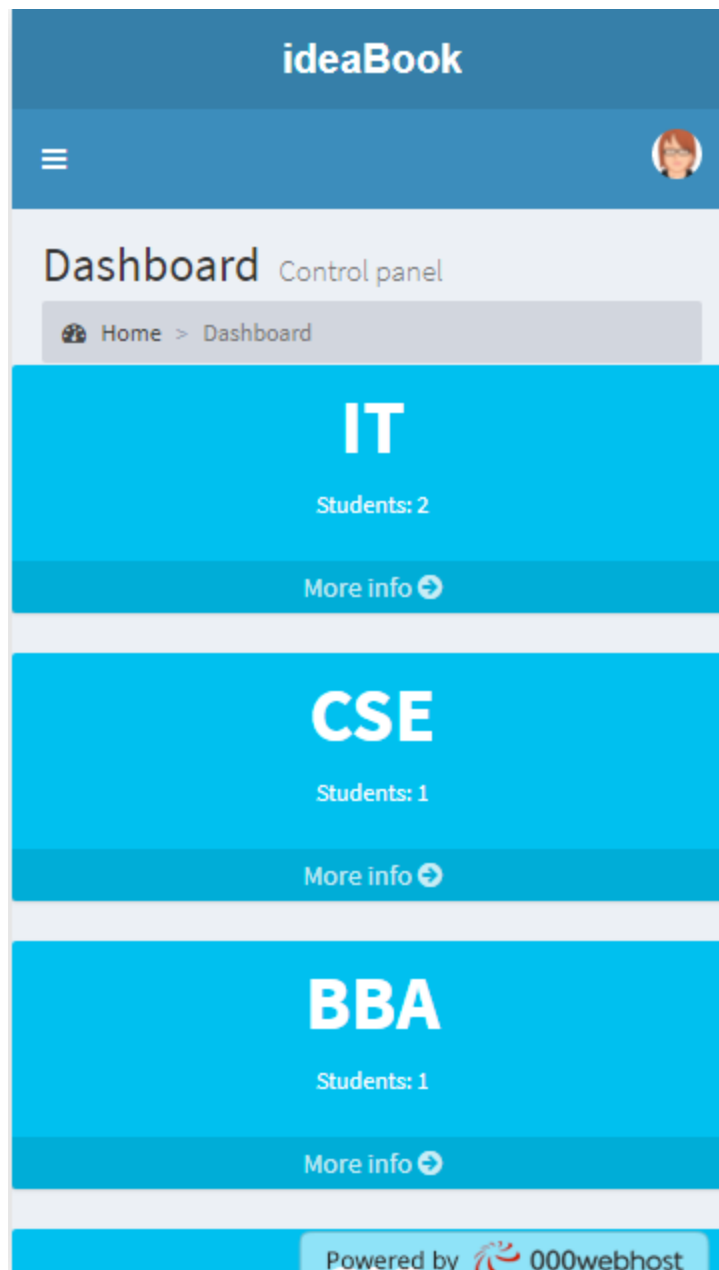


Figure 17 Samsung Galaxy S3-7 admin control view

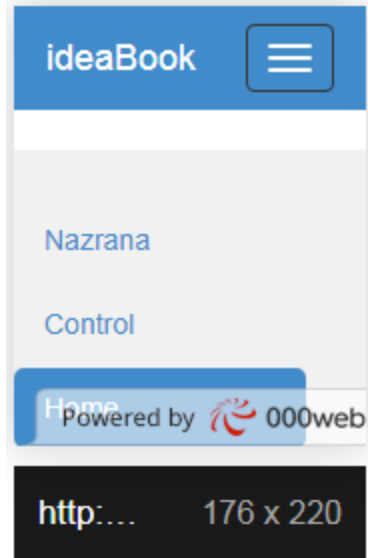


Figure 18 Motorola RAZR V3m timeline View

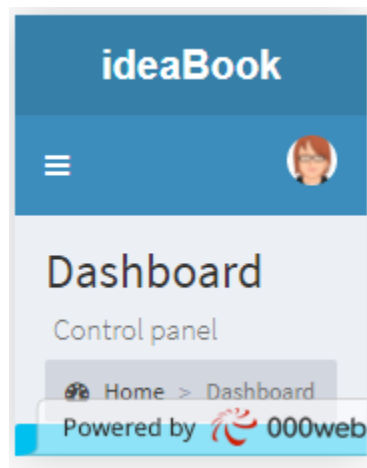


Figure 19 Motorola RAZR V3m admin control View

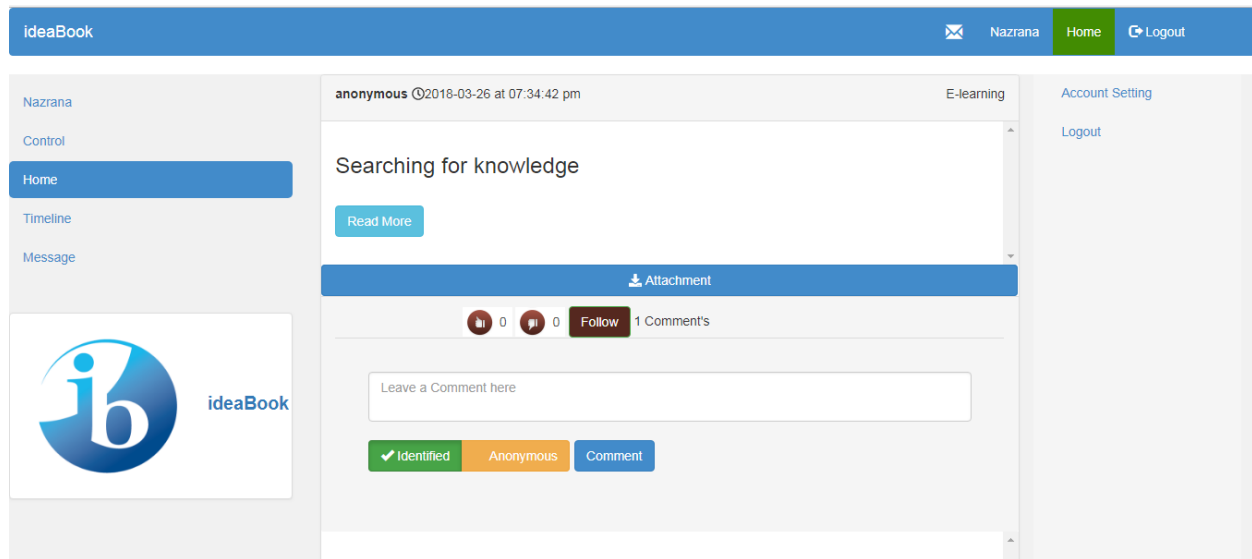


Figure 20 Desktop timeline view for Staff

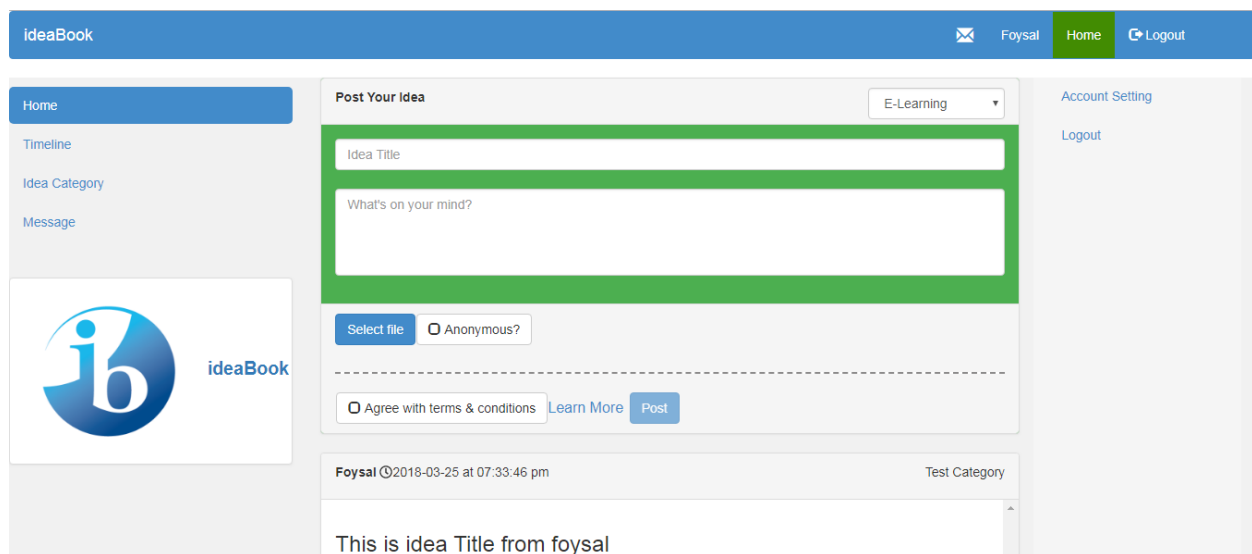


Figure 21 Desktop timeline view for students

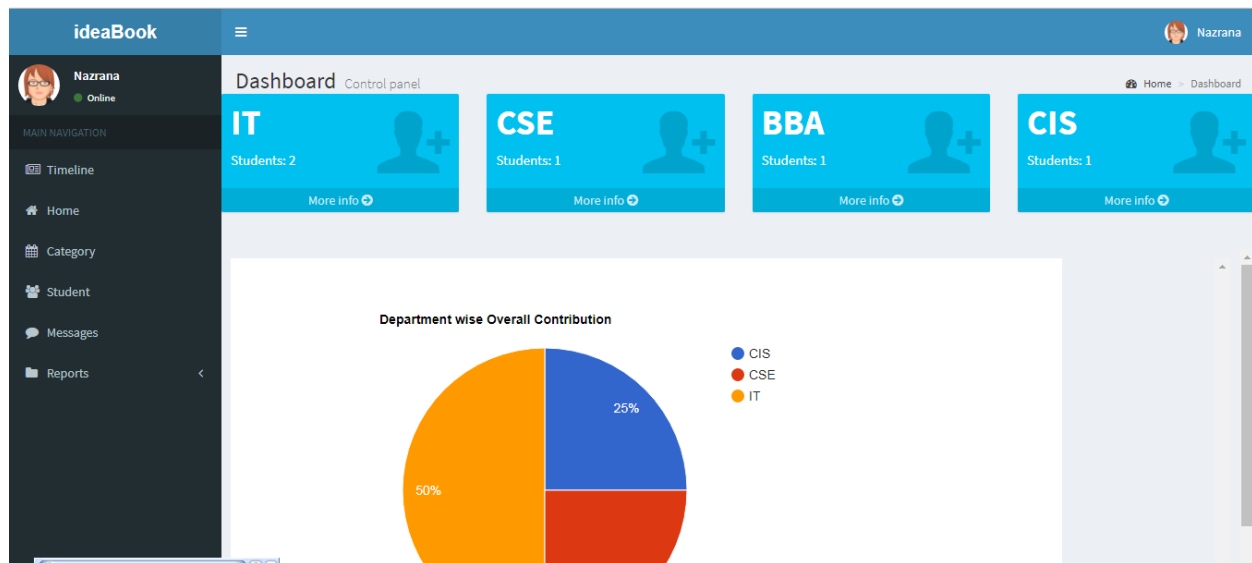


Figure 22 Admin Dashboard view for QAC

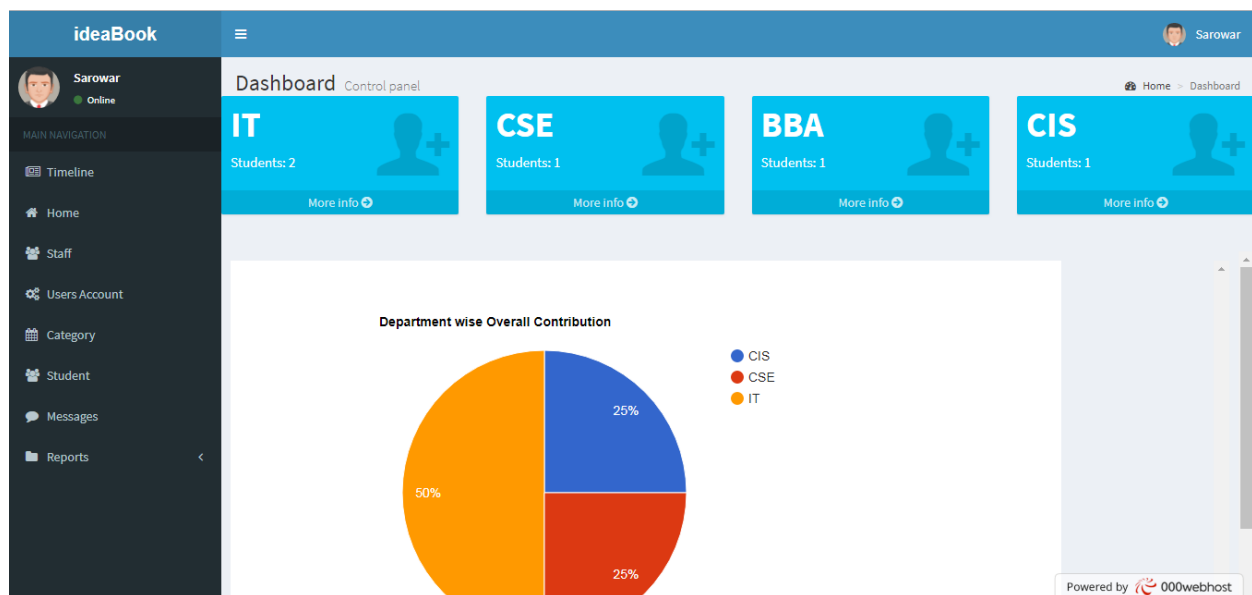


Figure 23 Admin Dashboard view for QAM

Appendices C: Completed System

Three Types of users use this system, they are Quality Assurance Manager (QAM), Quality Assurance Coordinators (QAC) and Students'. Every user have to login by email, password and pass google recaptcha to gain access to the system.

Key functions of users of the proposed system:-

Quality Assurance Manager (QAM) Functions

- Launch New Category:

QAM can launch a new category with set closure date and final closure date

The screenshot shows the 'ideaBook' dashboard. On the left is a sidebar with navigation links: Timeline, Home, Staff, Users Account, Category, Student, Messages, and Reports. The main content area is titled 'Dashboard Manage Category'. It features a 'Launch Category' form on the left, which is highlighted with a red box. The form has three input fields: 'Name' (with a placeholder 'Category Name'), 'Closure Date', and 'Final Closure Date' (with a placeholder 'Final Closure Date'). Below these fields is a green 'Launch' button. To the right of the form is a table titled 'On Going Category'. The table has columns for 'Category Name', 'Closure Date', 'Final Closure', and 'Details'. It contains two entries: 'E-Learning' with closure date '2018-04-11' and final closure '2018-04-25', and 'Test Category' with closure date '2018-04-12' and final closure '2018-04-20'. Each entry has a blue 'Details' button. Below the table, it says 'Showing 1 to 2 of 2 entries' and has 'Previous', '1', and 'Next' navigation links.

Figure 24 Launch New category

The screenshot displays four green boxes with white text. The top-left box says 'Category: E-Learning'. The top-right box says 'Remaining Closure Days : 14'. The bottom-left box says 'Launched: 2018/25/03'. The bottom-right box says 'Remaining Final Closure Days : 28'.

Figure 25 Showing remaining days of closure date and final closure date.

- Edit Category information

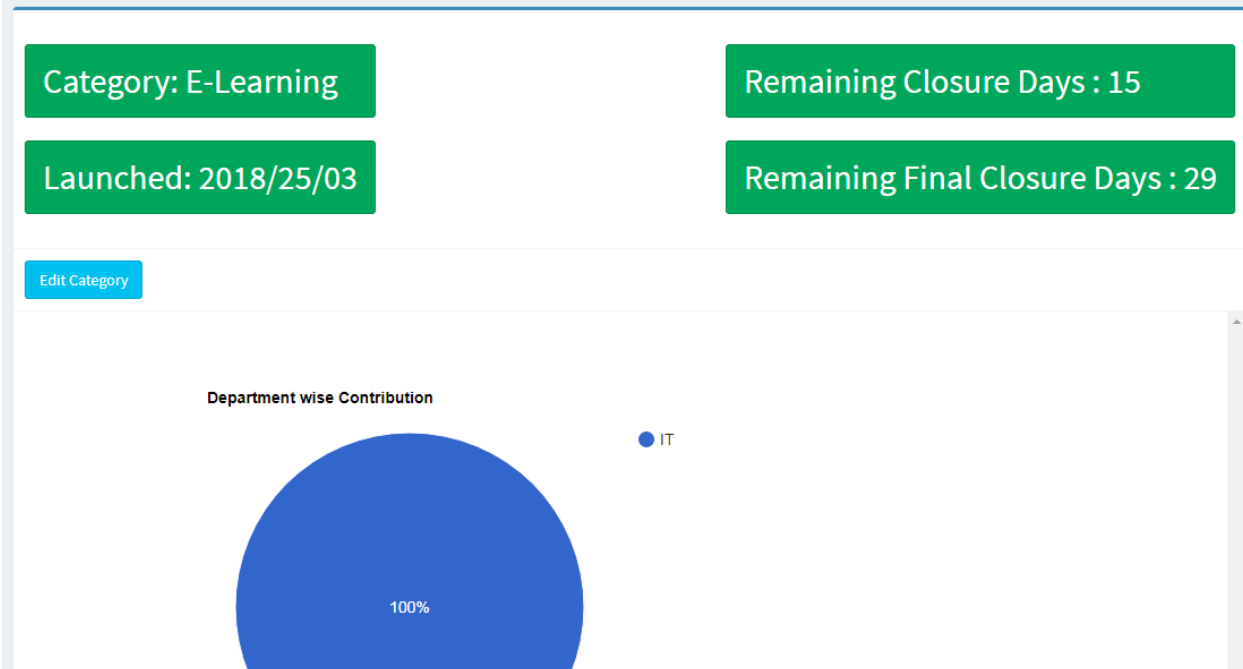


Figure 26 Edit Category name and dates

- Edit and Delete Category:

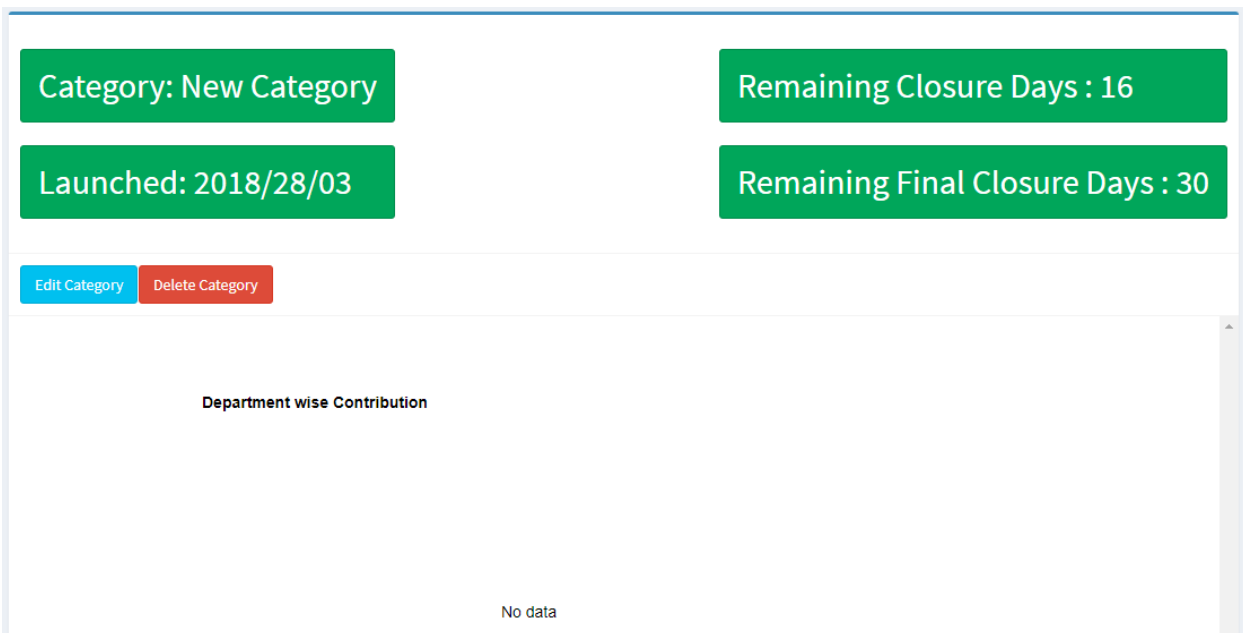


Figure 27 Edit and Delete a category if this category is unused.

Department wise Contribution

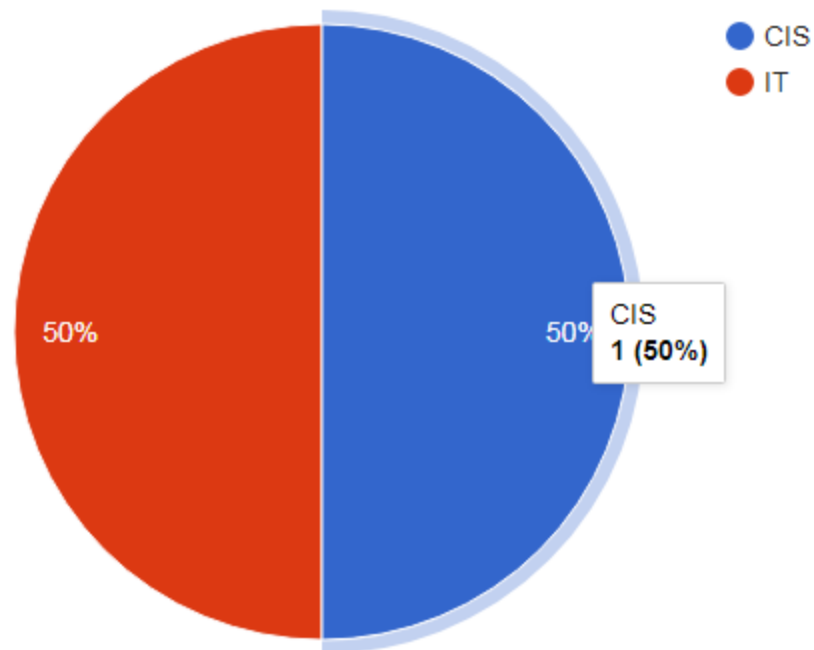


Figure 28 Department wise contribution on selected category.

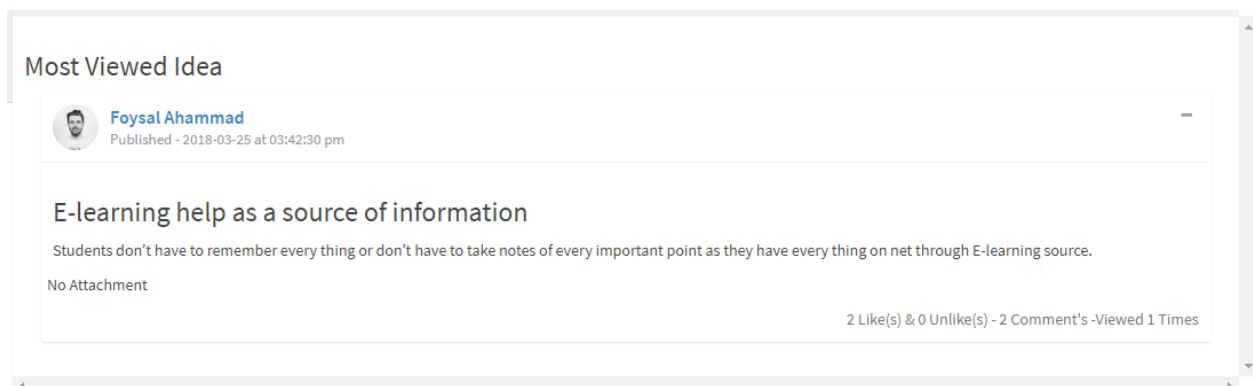



Figure 29 Showing most popular idea in this selected category

Show entries Search:

Idea Title	Idea Body	Punlisher Name	Date	Time	Attachment	Details
E-learning help as a source of information	Students don't have to remember every thing or don't have to take notes of every important point as they have every thing on net through E-learning source.	Foysal	2018-03-25	03:42:30 pm	No Attachment	Details
Test Post	ghjdfsfs	Sajid	2018-03-29	02:05:34 pm	No Attachment	Details
Idea Title	Idea Body	Punlisher Name	Date	Time	Attachment	Details

Showing 1 to 2 of 2 entries Previous **1** Next

Figure 30 Showing all posted ideas in this selected category.



Foysal Ahammad
 Published - 2018-03-25 at 03:42:30 pm

E-learning help as a source of information

Students don't have to remember every thing or don't have to take notes of every important point as they have every thing on net through E-learning source.

No Attachment [Block](#) [Delete](#)

2 Like(s) & 0 Unlike(s) - 2 Comment's


Sajid Rayhan
 Anonymous comment by Sajid
[Delete](#)
2018-03-29 at 12:12:57 pm



Sajid Rayhan
 good writing
[Delete](#)
2018-03-29 at 01:16:55 pm

Figure 31 QAM, QAC can Block and Unblock any posted idea. Also can delete any idea and comment



Anonymous 2018-03-29 at 12:12:57 pm

Anonymous comment by Sajid



Students View



Sajid Rayhan

Anonymous comment by Sajid

Delete



QAM, QAC view

Figure 32 Showig students and staff view of an anonymous comment.

- Manage Staff profile:

All Staffs List			
Show	10	entries	Search: <input type="text"/>
Full Name	Joinning Date	Department	Details
Nazrana Haque	2018-5-1	IT	Details
Full Name	Joinning Date	Department	Details
Showing 1 to 1 of 1 entries			
Previous		1	Next

Figure 33 View staffs' list

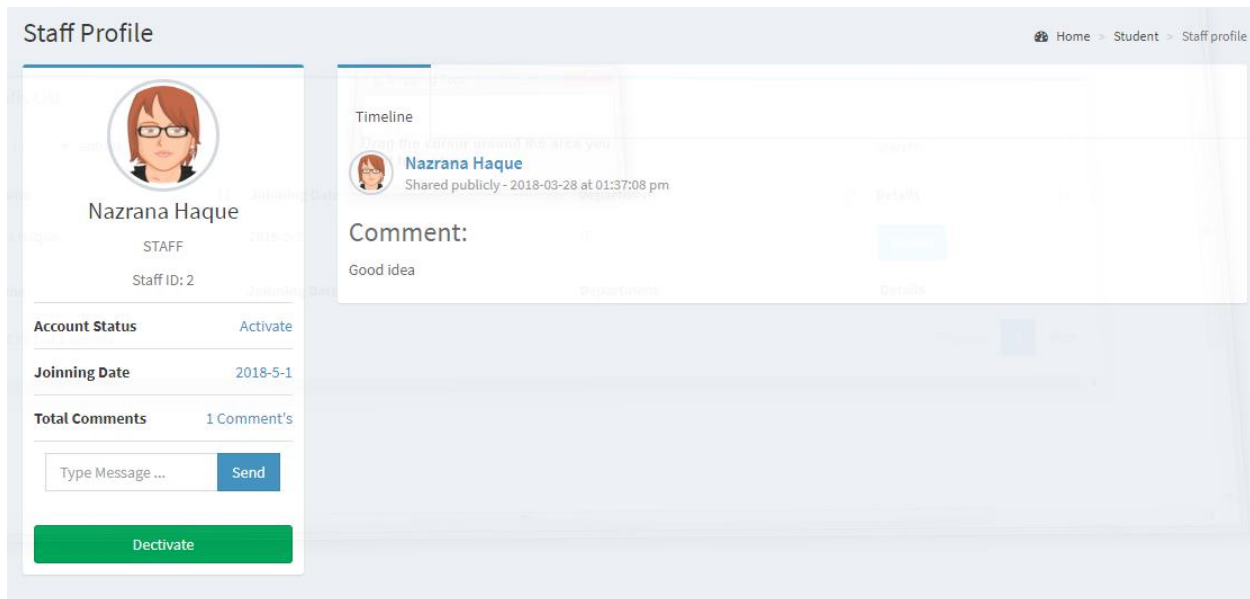


Figure 34 Showing staff profile with comments

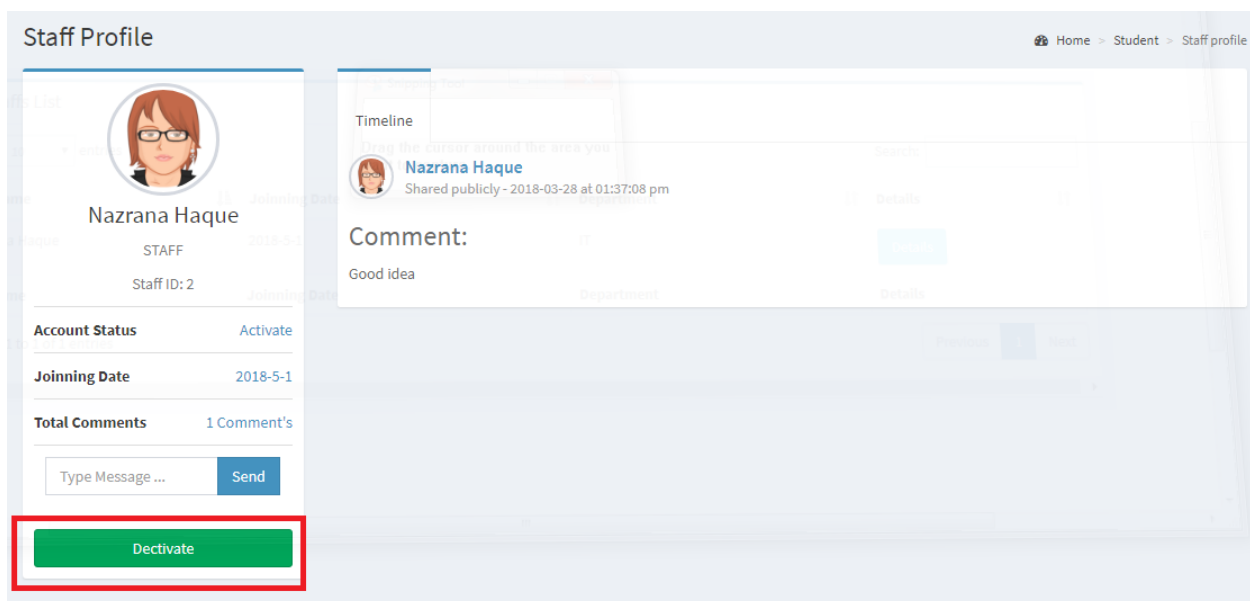


Figure 35 QAM can Activate or Deactivate staffs' account

All Users List

Show 10 entries

Search:

Full Name	User Type	Email	Password	Status	Action
Foysal Ahammad	STD	foysal35@diit.info	<button>Deactivate</button>	<button>Delete</button>
Mahmudur Rahman	STD	samir35@diit.info	...	<button>Deactivate</button>	<button>Delete</button>
Muntasir Hasan	STD	siam35@diit.info	...	<button>Deactivate</button>	<button>Delete</button>
Najiul Tanvir	STD	tanvir@gmail.com	...	<button>Activate</button>	<button>Delete</button>
Nazrana Haque	STAFF	foysalahammed055@gmail.com	...	<button>Deactivate</button>	<button>Delete</button>
Sajid Rayhan	STD	sajid35@diit.info	...	<button>Deactivate</button>	<button>Delete</button>
Full Name	User Type	Email	Password	Status	Delete

Showing 1 to 6 of 6 entries

Previous1Next


Figure 36 Change Users account status and delete accounts


Quality Assurance Coordinator (QAC) Functions

Foysal 2018-04-01 at 01:04:42 pm ICT Carnival

New Idea

Read More

 2

 0

Follow


0 Comment's

Leave a Comment here

✓ Identified

Comment

Figure 37 Submit comment and reactions (Like & Unlike)

 **Evan Ashton**
Published - 2018-03-29 at 07:21:49 am

What is eLearning?


Understanding eLearning is simple. eLearning is learning utilizing electronic technologies to access educational curriculum outside of a traditional classroom. In most cases, it refers to a course, program or degree delivered completely online. There are many terms used to describe learning that is delivered online, via the internet, ranging from Distance Education, to computerized electronic learning, online learning, internet learning and many others. We define eLearning as courses that are specifically delivered via the internet to somewhere other than the classroom where the professor is teaching. It is not a course delivered via a DVD or CD-ROM, video tape or over a television channel. It is interactive in that you can also communicate with your teachers, professors or other students in your class. Sometimes it is delivered live, where you can "electronically" raise your hand and interact in real time and sometimes it is a lecture that has been prerecorded. There is always a teacher or professor interacting /communicating with you and grading your participation, your assignments and your tests. eLearning has been proven to be a successful method of training and education is becoming a way of life for many citizens in North Carolina.

No Attachment

Block

Delete

1 Like(s) & 0 Unlike(s) - 1 Comment's

 **Freya Gardiner**
fgdgdgfd

Delete

2018-03-29 at 03:04:35 pm

Figure 38 Can manage idea

{ 28 }

Category Name:

Select Category

Get List

Departmental Students Ideas List

Show 10 entries Search:

Idea Title	Idea Body	Punlisher Name	Date	Time	Attachment	Details
New Idea	jfdlgfd	Foysal	2018-04-01	01:04:42 pm	No Attachment	Details
Idea Title	Idea Body	Punlisher Name	Date	Time	Attachment	Details

Showing 1 to 1 of 1 entries

Previous 1 Next

Figure 39 QAC can view own departmental ideas in category wise.

Students Function

- Submit a new idea

Post Your Idea

ICT Carnival

Idea Title

What's on your mind?

2000 characters remaining

Select file

☐ Anonymous?

☐ Agree with terms & conditions [Learn More](#) [Post](#)

Figure 40 Idea submission form

Post Your Idea

ICT Carnival ▼

The three day long 'Daffodil ICT Carnival-2018' is going to kick-off in Daffodil International University (DIU) at the

ICT Project Exhibition, Interactive Session, Panel Discussion, Career Talk, Seminar, Workshop, Symposium, Smart Campus Hackathon, Programming Contest, Quiz Contest, Fun Games, Movie, Game Shows, Techno Fashion Shows etc will take place during the carnival.

1744 characters remaining

Select file

☐ Anonymous?

☐ Agree with terms & conditions

[Learn More](#)

Post

Figure 41 Idea posting

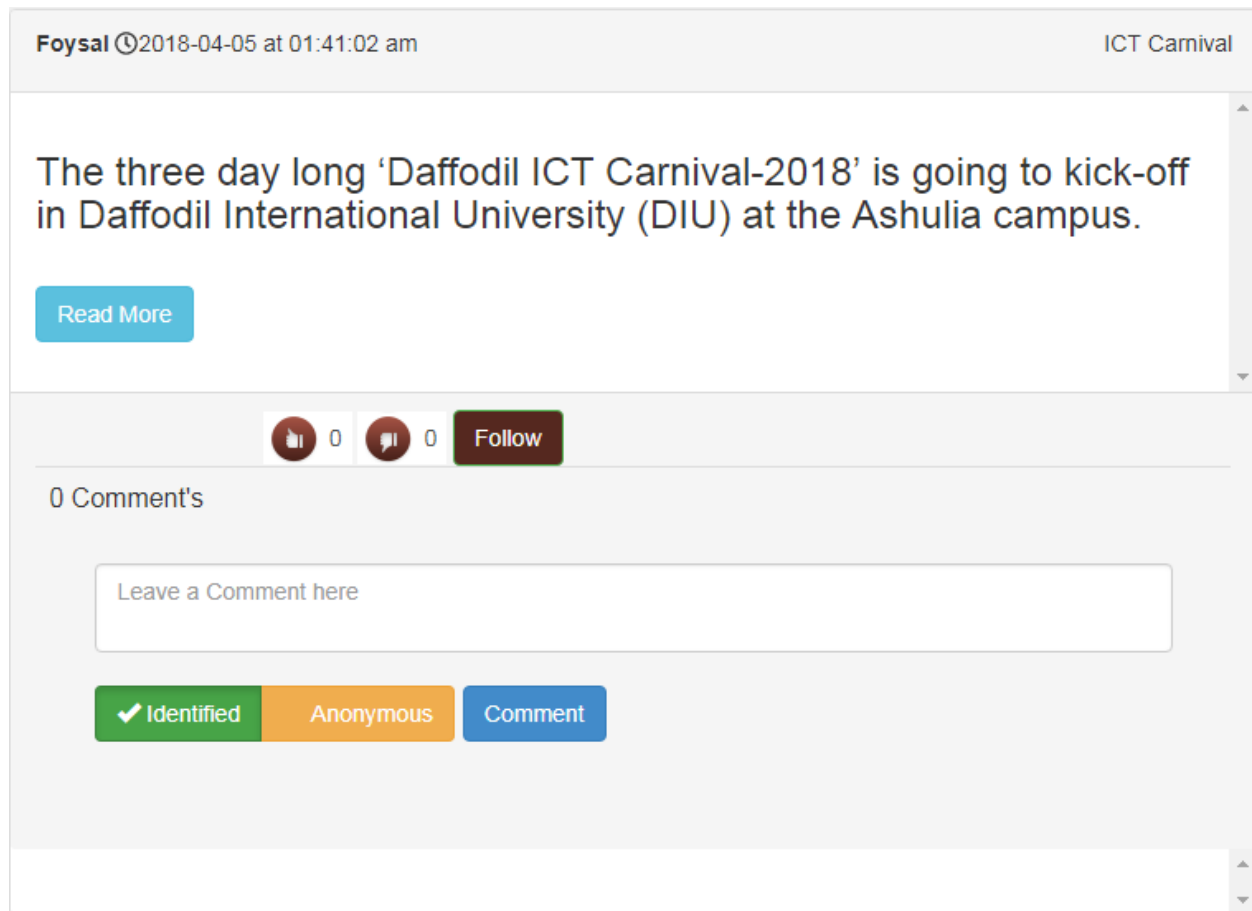


Figure 42 Posted idea view

Foysal 2018-04-05 at 01:41:02 am

ICT Carnival

The three day long ‘Daffodil ICT Carnival-2018’ is going to kick-off in Daffodil International University (DIU) at the Ashulia campus.

Read More

ICT Project Exhibition, Interactive Session, Panel Discussion, Career Talk, Seminar, Workshop, Symposium, Smart Campus Hackathon, Programming Contest, Quiz Contest, Fun Games, Movie, Game Shows, Techno Fashion Shows etc will take place during the carnival.

0

0

Follow

0 Comment's

Leave a Comment here

✓ Identified

Anonymous

Comment

Figure 43 User can read idea details by clicking read more button

Sajid 2018-04-05 at 01:45:13 am

Good thinking.

Leave a Reply here

Reply

Figure 44 Student commented on the idea

Foyisal

2018-04-05 at 01:41:02 am

ICT Carnival

The three day long 'Daffodil ICT Carnival-2018' is going to kick-off in Daffodil International University (DIU) at the Ashulia campus.

Read More

1

0

Unfollow


1 Comment's

Leave a Comment here

✓ Identified

Anonymous

Comment



Sajid

2018-04-05 at 01:45:13 am

Good thinking.

Figure 45 Idea view with like, comment and follower

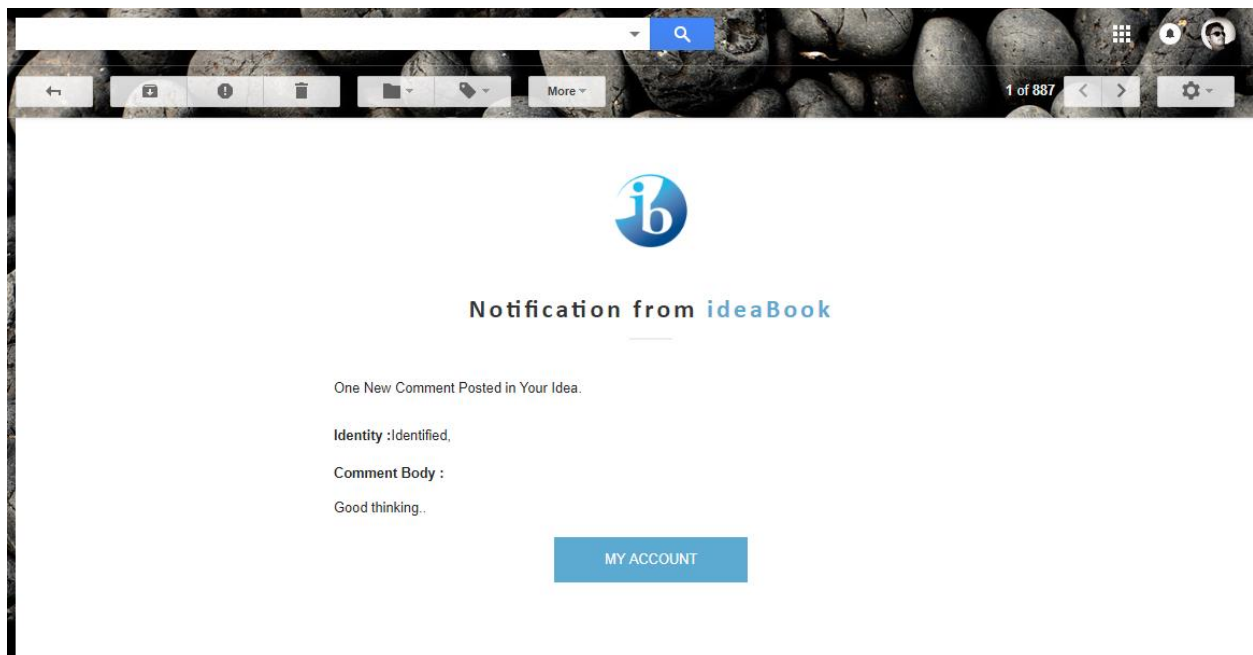


Figure 46 Student gets notification for every single posted comment on his idea