

Enterprise Web Software Development COMP1640

Kung Fu Pandas Group Report

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1. Group work details

URL of Group Repository: <https://github.com/jblaut/greenmag>

Screencast:

Website: <http://www.greenmag.co.uk/index.php>

Each user role has different types of features of the website they can use which is why an email and password are given for each role.

User Role	Email	Password
Admin	admin@greenwich.ac.uk	Password
Marketing Manager	marketingmanager@greenwich.ac.uk	Password
Marketing Co-ordinator	FACHCoordinator@greenwich.ac.uk	Password
Student	De309@greenwich.ac.uk	Password
Guest	guest@greenwich.ac.uk	Password

Table 1 User Roles Details

Database: <http://sql51.hostinger.co.uk/phpmyadmin/>

Username: u495998595_admin

Password: apb32axsoJVr

2. Introduction

The aim of the present report is to present and demonstrate the effective way of working in team. The main task for the team was to create a web-based secure role-based system for collecting student contributions for an annual university magazine. Further, it will be presented a user centred designed system with its capacity and capability to motivate its usage.

From a business point of view technology can increase company profit but also it can decrease a business image very quickly if is not addressed properly and if it's something that takes a long time to rebuild. It often happens with universities when they try to collect and engage pupils in the major period of student life.

So, we will present and document a *web-based secure role-based system* for collecting student contributions for the annual "GreenMag" university magazine. This system is dedicated for 4 faculties of the university: Faculty of Architecture, Computing and Humanities, Business School, Faculty of Education and Health, Faculty of Engineering and Science. All students across these faculties are open and encouraged to write and upload articles for the annual university magazine.

As a student, you should first register with your credentials so that you can login into the system. Once you register and login, you have access to the system so you can submit one or more articles and high quality images. Before any submission, you must agree with the terms and conditions. Also, you can update your submissions by the closure dates.

As a student, you also have a faculty based Marketing Coordinator who will take care of your own faculty submissions. The Marketing Coordinator will read, edit and publish your articles to the system. There is also a general Marketing Manager who will oversee the whole process and choose the articles that will be published.

If you are a guest, you can register and login within each Faculty and see the articles and the statistics about the annual submissions.

3. Agile Documentation

3.1. Minutes of meetings

Week	Minutes	Attendance	Activities/ Discussions	Tasks for next week	
1	17/01/2017	14:50 – 15:50 60 mins total	All	<ul style="list-style-type: none">- The first stage was to gather information about each member and to assign roles to each of us.- At the moment, the main way of communication is WhatsApp. We chose this app as everyone is using it and is comfortable with this. We plan to use Gig Hub in the future for sharing documents, ideas, etc.	<ul style="list-style-type: none">- Think of technologies- Make some research on backlog and user stories- Find agile scrum tool
2	24/01/2017	14:45 - 16:00 75 mins total	Cristina Off (illness)	<ul style="list-style-type: none">- We discussed and decided on the technologies that would be used to create the web site. These technologies will be PHP and MySQL for database and programming, CSS and HTML for designing and Bootstrap as a framework. We will also use GitHub to share documents and code and Visual Studio will be used as a Scrum tool.- Further, we discussed the product backlog structure and how to create efficient user stories.- Another subject of interest was how to design the database.	<ul style="list-style-type: none">- Create accounts for each team member on git hub and visual studio- Create a basic database ERD- Create some user stories
3	31/01/2017	14:30 – 15:00 15:00 – 16:00 90 mins total	All	<ul style="list-style-type: none">- Going through user stories- Decide on some parts of the design- Making changes in the database	<ul style="list-style-type: none">- Database improvement- Starting on designing- “login” page- Split the user stories- Sprints

4	07/02/2017	15:10 – 15:40 30 mins total	Sanda Off (travelling)	<ul style="list-style-type: none"> - Discussion about assumptions (statistical reports, exception reports) - Database checking (ERD) - Implementation of user stories - Web page design combination - Login and register page 	<ul style="list-style-type: none"> - Prioritize the tasks - Queries - Login connected to the database - Implementation of a profile page
5	14/02/2017	15:00 – 15:45 45 mins total	All	<ul style="list-style-type: none"> - Final design discussion - Basic functionalities such as login and register - Assumptions - Creating accounts for each member of the team on the system 	<ul style="list-style-type: none"> - Panopto presentation - Further development on design and functionalities (register page)
6	21/02/2017	15:10 – 15:50 40 mins total	Cristina Off (coursework)	<ul style="list-style-type: none"> - Uploading panopto screen cast - Working on database - Register and login done - Starting on “submit articles” functionality 	<ul style="list-style-type: none"> - Finish “submit articles” - Start on testing
7	28/02/2017	15:00 – 16:00 60 mins total	Jamie Off (work)	<ul style="list-style-type: none"> - Discussion on the new design - Begin testing on login and register pages 	<ul style="list-style-type: none"> - Populate the profiles with articles - Marketing Manager and Marketing Coordinator pages - Comment on an article
8	07/03/2017	15:15 – 15:50 45 mins total	All	<ul style="list-style-type: none"> - Creating more queries - Discussion on wireframes and site map - Testing on MM and MCo 	<ul style="list-style-type: none"> - Continues with testing - Statistics
9	14/03/2017	14:30 – 16:00 90 mins total	All	<ul style="list-style-type: none"> - Presentation discussions 	<ul style="list-style-type: none"> - Create presentation - Finish testing
10	21/03/2017	14:00 – 16:00 120 mins total	All	<ul style="list-style-type: none"> - Presentation discussions - Presentation day 	<ul style="list-style-type: none"> - Get feedback and improve the website
11	28/03/2017	15:30 – 16:15 45 mins total	All	<ul style="list-style-type: none"> - Get feedback from the other presentations 	<ul style="list-style-type: none"> - Create screen cast based on the feedback
12	11/04/2017	12:00 – 14:00 120 mins total	All	<ul style="list-style-type: none"> - Discussion on the final details and deliverables 	Upload project!!!
Total minutes: 820				Work successfully done!	

Table 2 Minutes of meeting

3.2. User Stories

Marketing Manager

As Marketing Manager, I want have access to the system so that I can oversee the process.

As Marketing Manager, I want to have a special access to the system so that I can keep track of the submissions and comments into the deadline date.

As Marketing Manager, once I am logged in the system, I want to be able to select the contributions in which I am interested, so that I can view them.

As Marketing Manager, I want to be able to download all the contributions, once selected, so that I can have them in a ZIP file on my machine.

As Marketing Manager, I want to be able to download a single Word file for each article so that I can have it on my machine.

As Marketing Manager, I want to be able to access to the statistic page so that I can view the report for approved articles, group by academic year and faculty.

Marketing Coordinator

As Marketing Coordinator, I want to have access to the system so that I can manage the process for my faculty.

As Marketing Coordinator, I want to have a special access to the system so that I can keep track of the contributions made by the students of my faculty.

As Marketing Coordinator, I want to receive an email notification for any new submissions so that I can make a comment in 14 days.

Make sure that the email is sent directly into my mail box even if I am not logged into the system.

As Marketing Coordinator, I want to have access to the contribution made by the students of my faculty, so that I can interact with them in case I need to edit or publish a submission.

As Marketing Coordinator, I want to be able to download a single Word file for each article so that I can have it on my machine.

As Marketing Coordinator, I want to be able to access to the statistic page so that I can view the report for approved articles, group by academic year and faculty.

Administrator

As Administrator, I want to have access to the system so that I can maintain the system data.

As Administrator, I want to have a specific access to the system so that I can manage the User table.

As Administrator, I want to have a specific access to the system so that I can add, edit or delete the closure dates for each academic year.

As Administrator, I want to be able to access to the statistic page so that I can view the report for approved articles, group by academic year and faculty.

As Administrator, I want to be able to access to the statistic page so that I can monitor the use of the system.

Student

As Student, I want to register my credentials so that I can login into the system.

As Student, I want to have access to the system so that I can submit one or more articles and high quality images.

Before any submission, I must agree with the terms and conditions.

As Student, I want to have access to the system so that I can update my submission within the closure date.

As Student, I want to be able to select a single article and download it as Word document so that I can have it on my machine.

As Student, I want to have access to the system so that I can read all the comment below the articles.

As Student, I want to be able to filter the articles so that I can group them by category.

As Student, I want to be able to access to the statistic page so that I can view the report for approved articles, group by academic year and faculty.

Guest

As a Guest, I want to be able to access to the system so that I can read all the selected articles and report for each faculty.

As a Guest, I want to be able to select a single article and download it as Word document so that I can have it on my machine.

As a Guest, I want I want to be able to access to the statistic page so that I can view the report for approved articles, group by academic year and faculty.

3.3. Workflow

After user stories list was created following the coursework specification, a workflow was necessary to clearly see the process that is under the system.

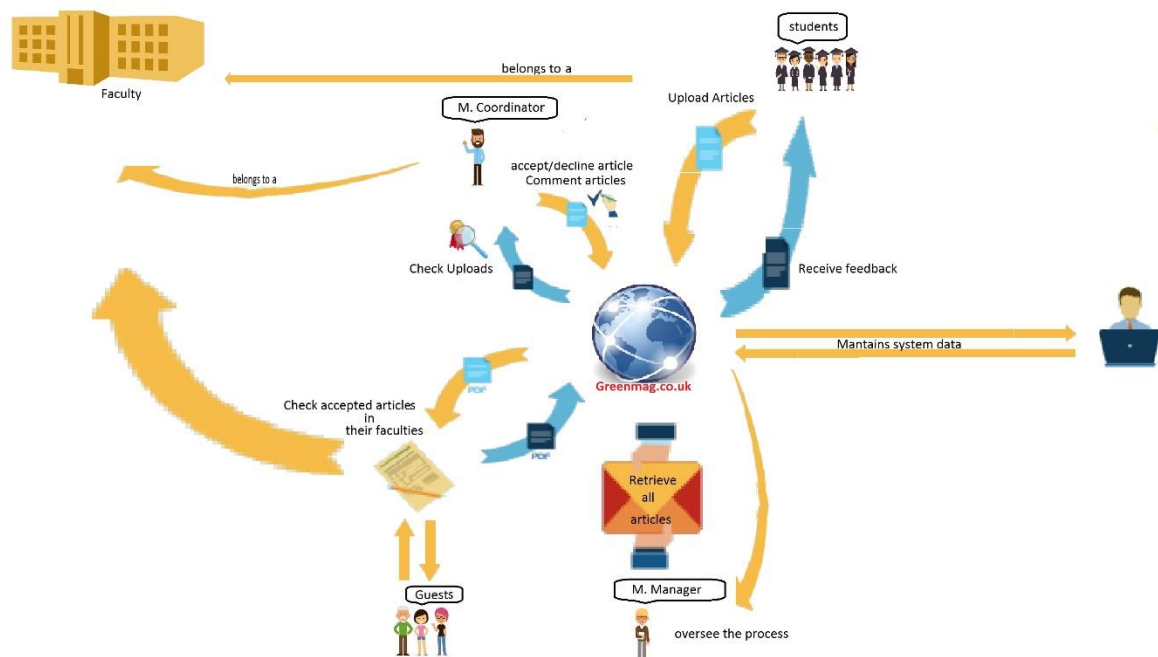


Figure 1 Workflow

3.4. Product Backlog

The product backlog was created at the beginning of the project so we could clearly see and prioritize the tasks for a smooth development. The following table contains the list of the initial requirements (user stories) in an order that we found it important to follow.

Priority	Tasks
Very Hight	1. All students have the opportunity to submit one or more articles as Word documents to the magazine.
	2.All students can also upload high quality images, e.g. photographs.
	3.The University has a Marketing Manager to oversee the process.
	4.All Faculties have a Marketing Coordinator who is responsible for managing the process for their Faculty.
	5.Each Marketing Coordinator needs to be able to interact with the students in their Faculty in order to edit the contributions and to select those for publication.
High	6. The University Marketing Manager can view all the selected contributions but cannot edit any. They need to be able to download all the selected contributions after the final closure date in a ZIP file for transfer out of the system.
	7. All students must agree to Terms and Conditions before they can submit.
	8. Once a contribution is submitted the system emails a notification to the Faculty's Marketing Coordinator, who must make a comment within 14 days.
	9. All new contributions are disabled after a closure date for new entries, but updates can continue to be done until a final closure date.
	10. A Marketing Coordinator can only access contributions by students in their Faculty.
Low	11. An administrator maintains any system data, e.g. closure dates for each academic year.
	12. A guest account for each Faculty can be used to view the selected reports.
	13. Statistical analysis (e.g. number of contributions per Faculty) needs to be available.
	14. The interface must be suitable for all devices (eg mobile phones, tablets, desktops).
	15. Statistics
	16. Exception reports

Table 3 Product Backlog

3.5. Sprints

After the product backlog was created, we started to think at sprints and how to share the work between the members of the team so we can work efficient and finish the product on time. We used the Trello software after a proper research of these kind of softwares. In addition to Trello, we also used Wunderlist as this one is an application that is designed to be used on mobile phones as well. So, Trello was used for product management purpose and Wunderlist for the times when we were on the go.

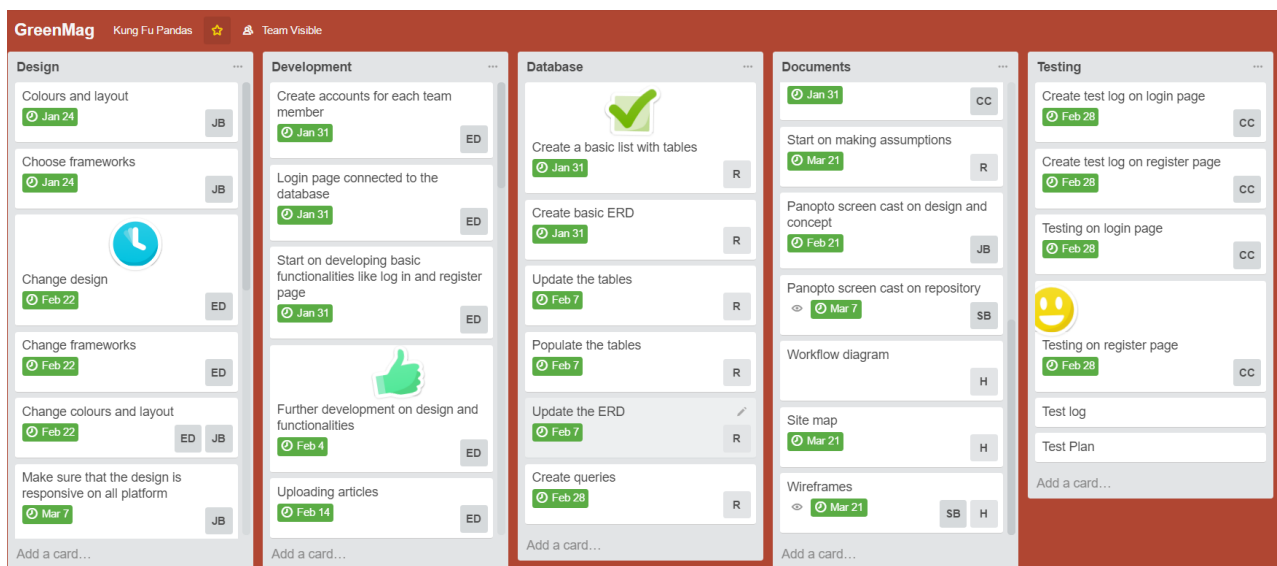


Figure 2 Trello sprints

We created weekly sprints for every stage of the project: designing, development, database, documentation and testing. Each sprint was assigned to one or more members, depending on each one's role and skills.

Design

Sprints	Deadlines	Assigned to	Accomplished
Choose colours and layout	24 Jan 2017	All	On time
Choose framework	24 Jan 2017	Jamie, Ellis	On time
Change design	22 Feb 2017	Jamie	On time
Change frameworks	22 Feb 2017	Jamie	On time
Change colours and layout	24 Feb 2017	Jamie	On time
Design responsive on all devices	7 Mar 2017	Jamie	On time
Mobile responsive issues to be solved	10 Mar 2017	Jamie	On time
Navigation Bar fixed	12 Mar 2017	Jamie	On time
Last login styling	14 Mar 2017	Jamie	On time
Student article comment styling	14 Mar 2017	Jamie	On time
Pie Charts layout	14 Mar 2017	Jamie	On time
Browser logos on each page	14 Mar 2017	Jamie	On time

Index page styling	20 Mar 2017	Jamie, Ellis	On time
View all articles	20 Mar 2017	Jamie	On time
Image size fixing	6 Apr 2017	Jamie	On time
General bugs fixing	6 Apr 2017	Jamie	On time

Table 4 Sprints on design

Development

Sprints	Deadlines	Assigned to	Accomplished
Create account for each team member	31 Jan 2017	Ellis	On time
Login page connected to the database	31 Jan 2017	Ellis	On time
Start on developing basic functionalities like login and register	31 Jan 2017	Ellis	On time
Further development on design and functionalities	4 Feb 2017	Ellis	On time
Uploading articles	14 Feb 2017	Ellis	On time
Updating articles	14 Feb 2017	Ellis	On time
Downloading articles	28 Mar 2017	Ellis	On time
Marketing Manager zip file to download	28 Feb 2017	Ellis	On time
Guest account – view only – on their faculty	6 Mar 2017	Ellis	*Delayed
Redirect to index page if logged out/sessions expired	6 Mar 2017	Ellis	On time
Statistics on which browser are used most/ who is the most active user	6 Mar 2017	Ellis	On time
Security for the edit page	8 Mar 2017	Jamie	On time
Validation for the edit page	8 Mar 2017	Jamie	On time
Leaving comments under an article	10 Mar 2017	Ellis	On time
Only @greenwich.ac.uk to register	10 Mar 2017	Jamie	On time
Marketing Manager section – view only – all faculties approved	14 Mar 2017	Ellis, Isaque	On time
Marketing coordinator – edit and view – on all faculties	14 Mar 2017	Ellis, Isaque	On time
Accept terms and conditions	14 Mar 2017	Isaque	On time
Email sent to marketing coordinator	16 Mar 2017	Isaque	On time
Admin page – system data	21 Mar 2017	Ellis	On time
Last login	21 Mar 2017	Ellis	On time
Page most viewed	21 Mar 2017	Ellis	On time
User most active	21 Mar 2017	Ellis	On time
Forgotten Password	21 Mar 2017	Ellis	On time
Disable upload after closure date	28 Mar 2017	Ellis	On time
Statistics	28 Mar 2017	Ellis	On time
General bugs fixing	6 Apr 2017	Ellis	On time

Table 5 Development sprints

Database

Sprints	Deadline	Assigned to	Accomplished
Create a basic list of tables	31 Jan 2017	Jaspreet	On time
Create basic ERD	31 Jan 2017	Jaspreet	On time
Implement the tables	7 Feb 2017	Jaspreet	On time
Populate the tables	7 Feb 2017	Jaspreet	On time
Update the ERD	14 Feb 2017	Jaspreet	On time
Create queries	28 Feb 2017	Jaspreet	On time
Populate the tables with more data	15 Mar 2017	Jaspreet	On time

Table 6 Database Sprints

Documentation

Sprints	Deadline	Assigned to	Accomplished
Create user stories	31 Jan 2017	Cristina, Sanda	On time
Split the user stories into multiple stories	6 Feb 2017	Cristina	On time
Product backlog	10 Feb	Sanda	On time
Assumptions	20 Feb 2017	Jaspreet	On time
Panopto screencast on design and concept	14 Mar 2017	Jamie	On time
Panopto screencast on repository	18 Mar 2017	Sanda	On time
Burndown chart	20 Mar 2017	Sanda	On time
Product sketches - Wireframes	20 Mar	Sanda	On time
Final presentation	21 Mar 2017	Sanda	On time
Information architecture - general info	4 Apr 2017	Isaque	On time
Create sprints	4 Apr 2017	Sanda	On time
Keep record of minutes' meetings	4 Apr 2017	Sanda	On time
Create weekly reports	4 Apr 2017	Sanda	On time
Final report – product evaluation	6 Apr 2017	Sanda	On time

Table 7 Sprints on documentation

Testing

Sprints	Deadline	Assigned to	Accomplished
Create test log on login page	28 Feb 2017	Cristina	On time
Create test log on register page	28 Feb 2017	Cristina	On time
Testing on user accounts – student account, MM, MC, guest and admin	21 Mar 2017	Cristina	On time
Check the testing log and test plan	24 Mar 2017	Sanda	On time
Testing on statistics and general functionalities across the system	26 Mar 2017	Cristina	On time
Final version of writing testing – test plan and test log	28 Mar 2017	Cristina	On time
Final testing on fixed bugs	4 Apr 2017	Cristina	On time

Table 8 Sprints on Testing

3.6. Burndown chart

A burndown chart was created in parallel with the sprints in order to see the progress of the team and also it helped us to organize the hours and the tasks distribution. This is the final chart that shows:

- the number of total cards (sprints) completed: 65
- the number of completed hours: 150
- the number of worked days (including weekends and public holidays): 70

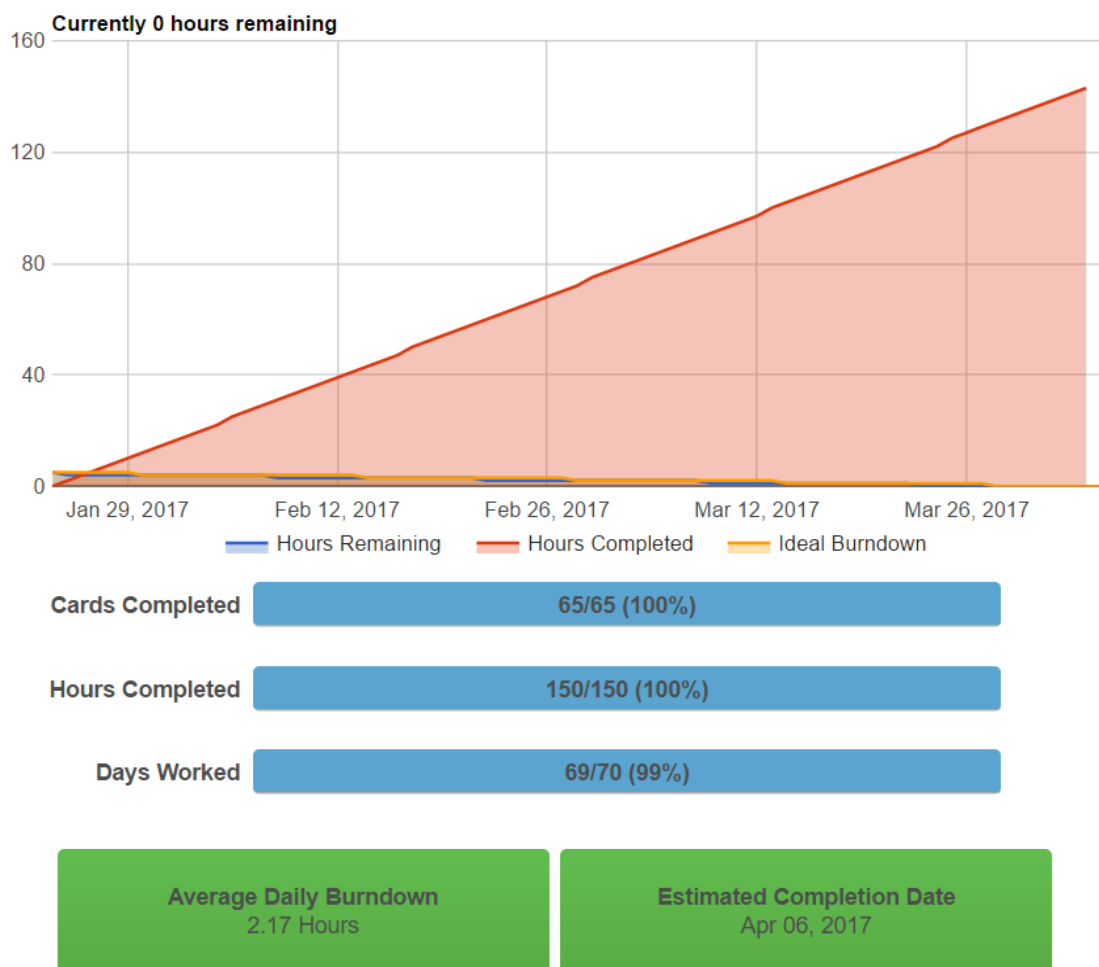


Figure 3 Burndown Chart

Burndown chart generated by <https://www.burndownfortrello.com/index.php>

3.7. Assumptions

A set of assumptions was made in order to have a smooth and clear development process.

- There are 4 faculties only
 1. Architecture, Computing & Humanities
 2. Business School
 3. Education & Health
 4. Engineering & Science
- Only Students have to register via the registration page. When registered, the User will be saved into the database as a student.
- Login is for all users.
- Marketing Manager, Co-ordinator and Guest will be assigned by Admin as they will not change as often as students do.

Articles

- Only approved articles can be viewed by everyone logged in.
- Roles settings for Articles

Admin = N/A

Marketing Manager = Can view all approved articles with exception reports

Marketing Co-ordinator = Can view and comment on all articles in their own faculty

Student = Can only see approved articles from other students and all of their own.

Guest = Can only see approved articles in their own faculties

Statistics

- Statistics diagrams and numbers can be viewed by all users
- Only approved articles statistics can be selected by Users. Total articles submissions, including non-approved ones, cannot be viewed individually.

4. Product sketches – Wireframes

4.1. Welcome page

The wireframe shows a 'WELCOME' header at the top. Below it are two panels. The left panel is for login, with fields for 'Email address' and 'Password', and buttons for 'Sign In!' and 'Forgotten Password'. The right panel is for registration, with fields for 'Email address', 'Password', and 'Confirm Password', a dropdown for 'Choose your faculty...', and a 'Sign me up!' button.

WELCOME

LOGIN

Email address

Password

Sign In!

Forgotten Password

LOGIN

Email address

Password

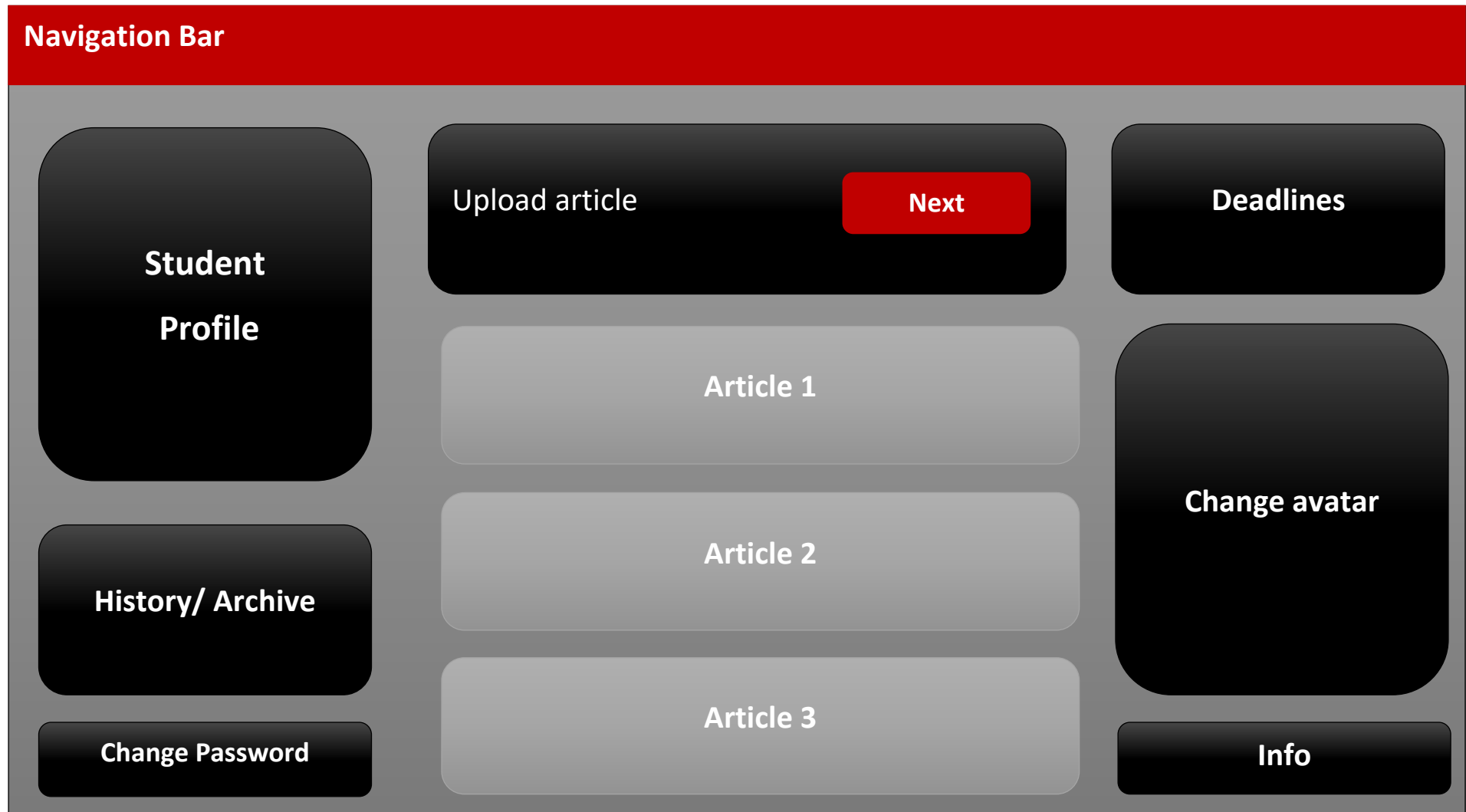
Confirm Password

Choose your faculty...

Sign me up!

Figure 4 Welcome page

4.2. Student page – main page

*Figure 5 Student main page*

4.3. Student page – upload articles

Navigation Bar

Student Profile

History/ Archive

Change Password

Upload article

Article

Choose file

Image

Choose file

Agree with terms and conditions

SUBMIT

Deadlines

Change avatar

Info

Article 1

Figure 6 Student page upload articles

4.4. Marketing Manager page

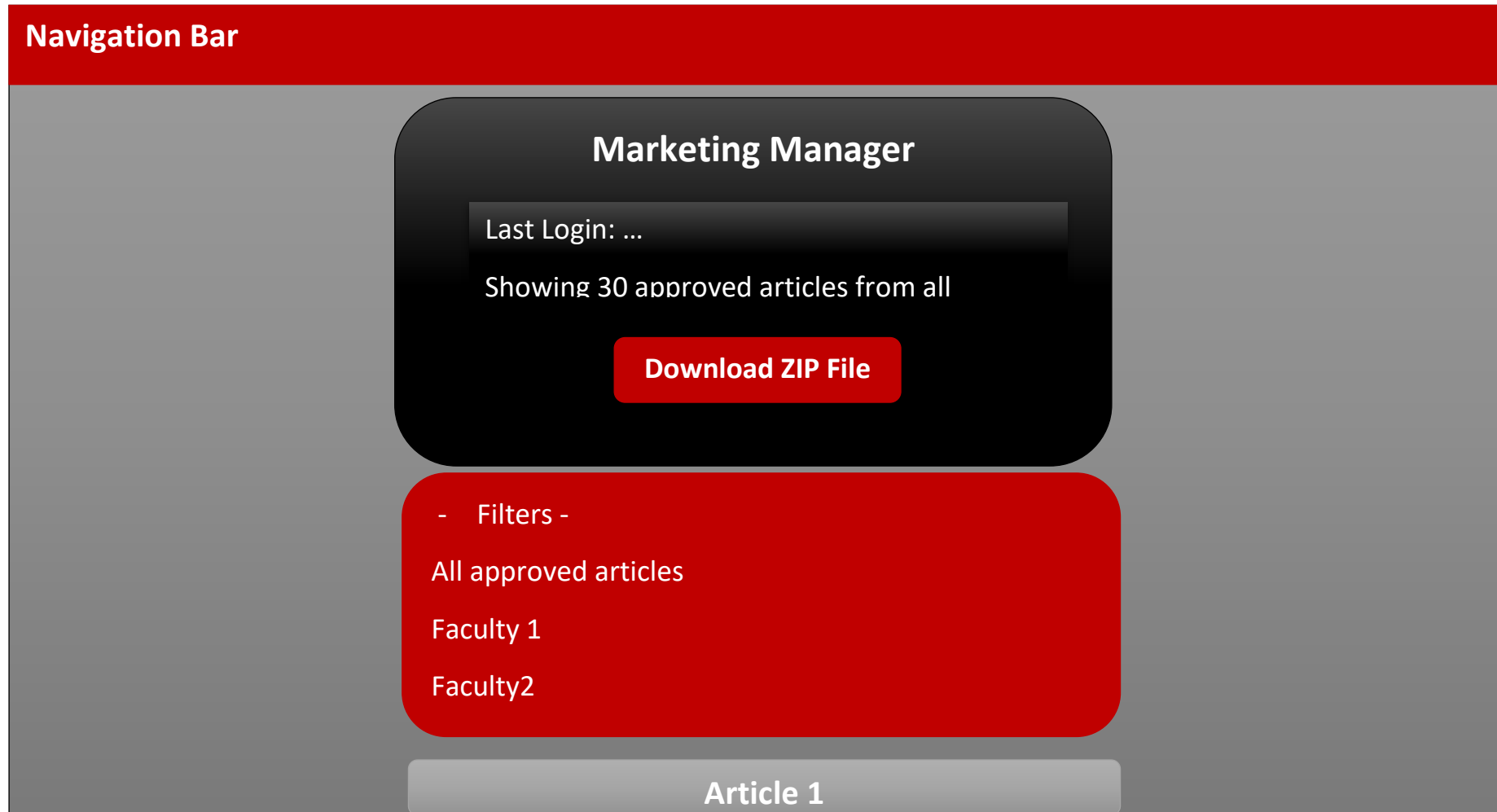


Figure 7 Marketing Manager page

4.5. Marketing Coordinator page

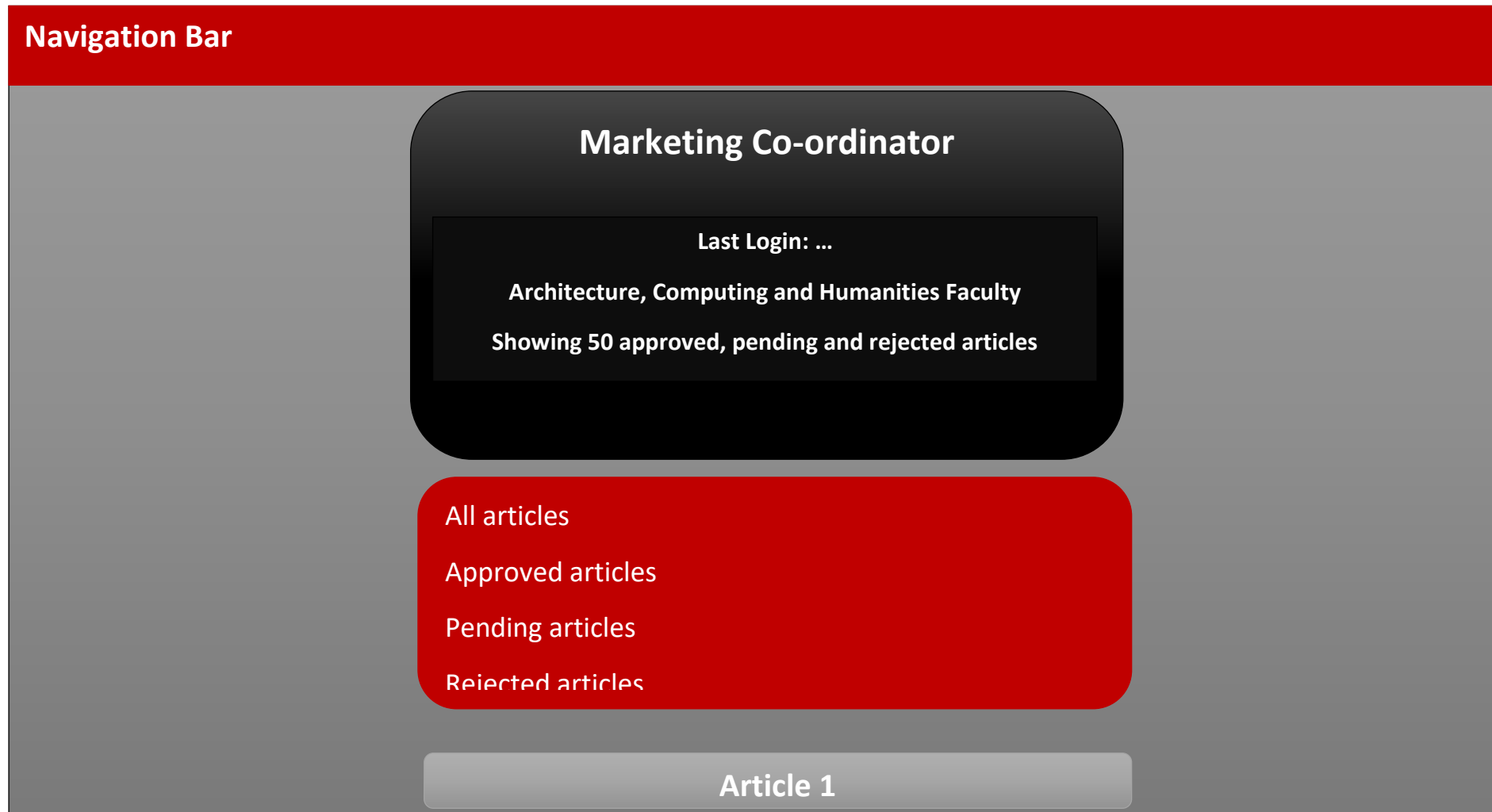


Figure 8 Marketing coordinator page

4.6. Guest page



Figure 9 Guest page

4.7. Administrator page

Navigation Bar

Administrator account

Current academic year:
Select September 2017 – August 2017

Save

Show:

Users Table

Academic Year Table

Close Dates Table

User Table

User	Faculty	Role
------	---------	------

Figure 10 Administrator page

5. Information architecture

We conducted an efficiency sort to expose how users will sort the website content, and to estimate the findability of a couple of proposed site structures.

User sorting:

When sorting system specification content into groups:

- Group Participants separated by 5 groups.
- The groups were overwhelmingly topic-based (e.g. faculty, role.).
- All sections (by Year of study, faculty name or location, etc.) chose similar groupings, suggesting that a single site structure will work for all site users.

During design and testing, the following general principles also emerged:

- Organise mainly by topic.
- Avoid (or explain) sections.
- Define the top 2 levels.
- Make every word earn its keep.
- Consider the order of topics.
- Put content where most people.
- Aim for 4-10 topics at lower levels.
- Avoid general or ambiguous terms.

The Department of Enterprise Web Software Development is planning to develop a website to provide Student and coordinators an online interaction that is a customer-centric and easy-to-use. Part of this design was to find out how users find the information they're looking for. The design must ensure that users can:

- Search successfully, using familiar everyday keywords (not necessarily academically terms)
- Browse successfully, using categories that are clear and distinguishable to them
- Find information efficiently, on their first visit and on subsequent visits.

We used sections to generate ideas for organising the new site and to design several alternative site structures, and finally we tested the respective structures.

Section sorting

We conducted an "open" Section sort, where group participants were asked to sort Sections into groups that made sense, and then label the groups. The sections were representative content taken from both the scenario and the client. After an internal pilot study and revisions, a profile picture was placed on student profile page, offering a more interaction for students. Group participants were also asked to engage with the design. which suggested substantial user interest in improving the site.

Designing the site structures

Based on the results of section sorting, we created several trees to test different participant ideas and labels, including:

- A tree that attempted to cover all scenario topics
- A minimal tree that covered only the top content used or requested.
- Revisions of the tree, which covered most content needed by users

Business needs analysis - Engagement between users

Focusing on how to get discretionary effort from users and how to ensure they will believe the University's mission, we came up with the following ideations:

- Giving them a sensation of control of the website which will give them confidence to use the website.
- A design that will modify the reason of using the system not just to upload articles and get it published but to get them to believe in the university.
- Interactions that will make users commit to the university not just a role.
- A system that promotes it's use for better results not just for better performance but also for users' satisfaction and less criticism.

Motivations – it is important to offer the users an attractive design so they feel confident and can get the best of the system.

Images - Students or anybody are often impressed by visualising attractive things, it doesn't have to be something from outer earth, something as simple as a picture with different effects or taken from a different angle or in a different coloured frame makes the difference.

Colours - are important because they define the users of the system, using colours that are normally among students, indirectly give them a natural feeling when using the system.

Design and its architecture - User-centered design to develop structures and software that will help users catalogue data more efficiently and to be able to access it more quickly.

The final site structure

Across all participants, the following groupings emerged:

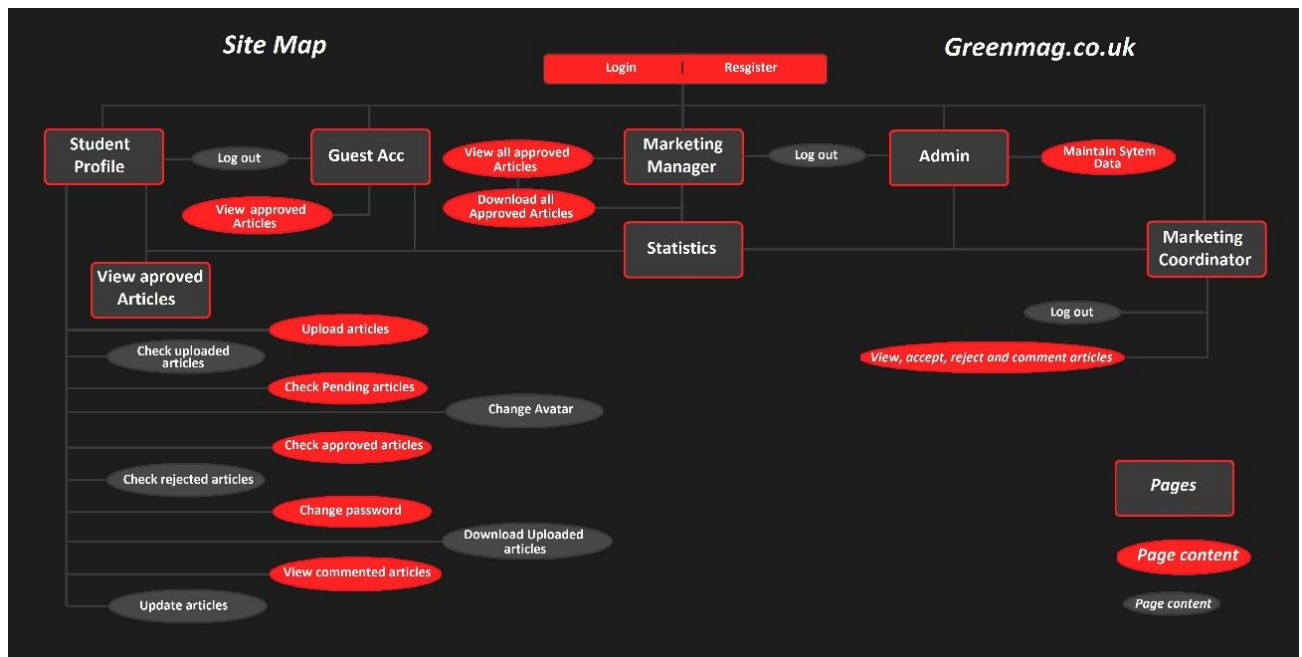


Figure 11 Site Map

Analysis of various user groups (Student, Marketing Coordinator, Marketing Manager, Administrator and guest) revealed no large differences in their groupings. This suggests that a single site structure may work for all users.

There was widespread agreement about which content belonged to what group: Statistics, View rejected articles and Pending articles.

Top findings:

- Contacts & Feedback was not appropriate. It needs to be more specific to avoid unwanted hits.
- The combined “commented articles / accepted articles” worked well, and proved a good way to consolidate top-level topics. More details.

Based on the results of section sorting and testing, the original “greenmag.co.uk” site structure has been revised to the following top-level sections: Student, Marketing coordinator, Marketing Manager, Guest and Administrator. It explicitly excludes the following content: Uploading articles, Faculty roles, E-mailing notification.

6. Presentation and product evaluation

By the time of the final presentation demo, we had the website fully functional and we received positive and negative feedback. All was constructive and we managed to make some improvements on the system.

The presentation can be found here:

<https://drive.google.com/file/d/0B3y1naOippmVLWQzNzB0alg2TnM/view?usp=sharing>

Next, a briefly analyse of the final product will be explained.

The **welcome page** provides a login form for those who already have an account and a register form for the new students that wish to register and upload articles. Under the login form, a “Forgotten button” is provided for those who don’t remember the initial password, so they can create a new one.

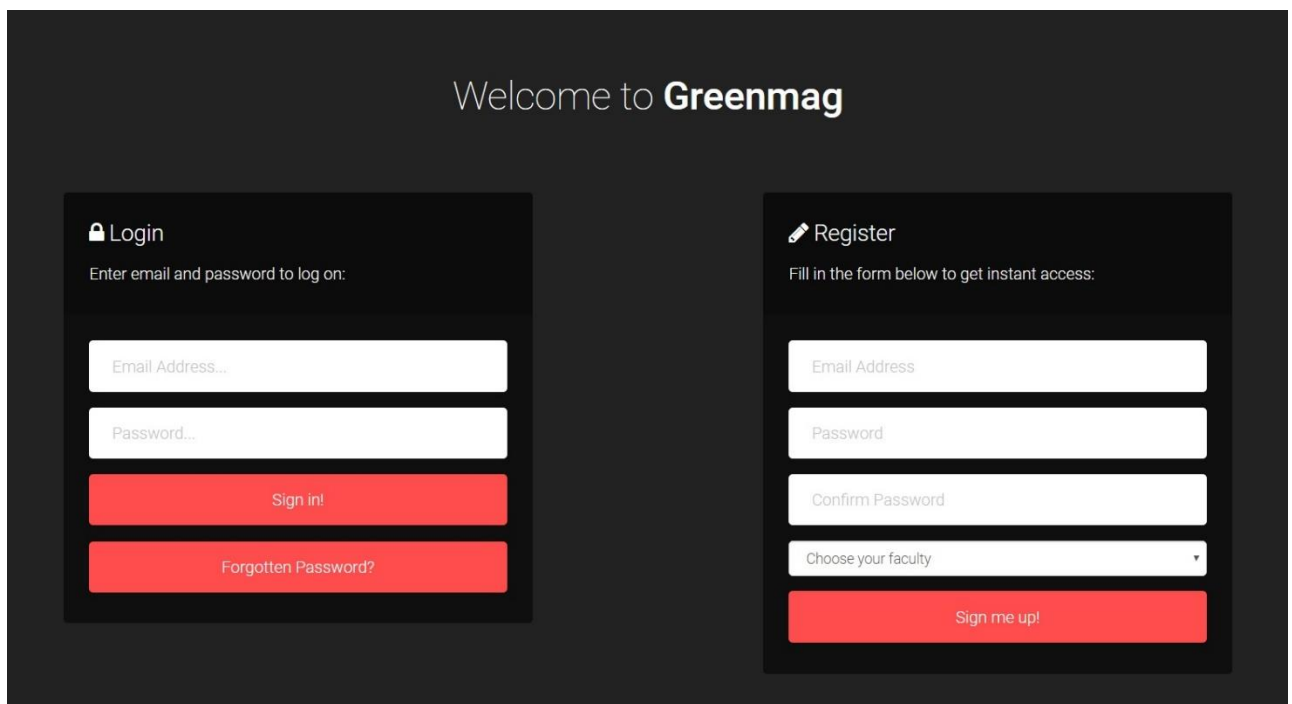
The screenshot shows the 'Welcome to Greenmag' page. It features two main sections: 'Login' and 'Register'. The 'Login' section has a title 'Login' with a lock icon, followed by the instruction 'Enter email and password to log on:'. It contains two input fields for 'Email Address...' and 'Password...', a red 'Sign in!' button, and a red 'Forgotten Password?' button. The 'Register' section has a title 'Register' with a pencil icon, followed by the instruction 'Fill in the form below to get instant access:'. It contains three input fields for 'Email Address', 'Password', and 'Confirm Password', a dropdown menu for 'Choose your faculty', and a red 'Sign me up!' button.

Figure 12 Welcome page

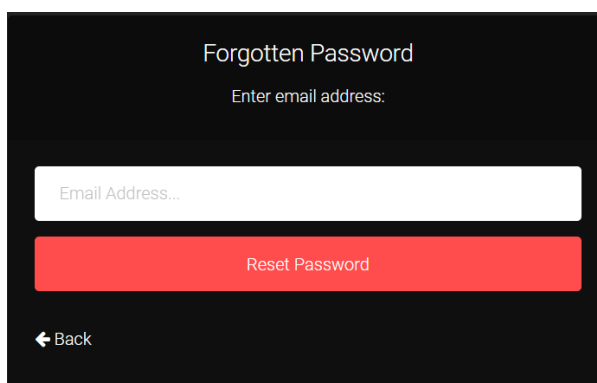
The screenshot shows the 'Forgotten Password' page. It has a title 'Forgotten Password' and the instruction 'Enter email address:'. There is a single input field for 'Email Address...'. Below the input field is a red 'Reset Password' button. At the bottom left, there is a 'Back' button with a left-pointing arrow.

Figure 13 Forgotten Password

Once you logged in as a student, for example, this is the interface for the student account. It has a simple, symmetrical structure so it can be easily followed and understood. In terms of functionalities and user interface design, there is a profile part where details of the user are displayed, there is a “Faculty Deadlines” box where the students can see if they are on time with their submissions and as additional features, they can change their avatar and filter their submissions. The main part of the interface is occupied by the upload articles and view articles section.

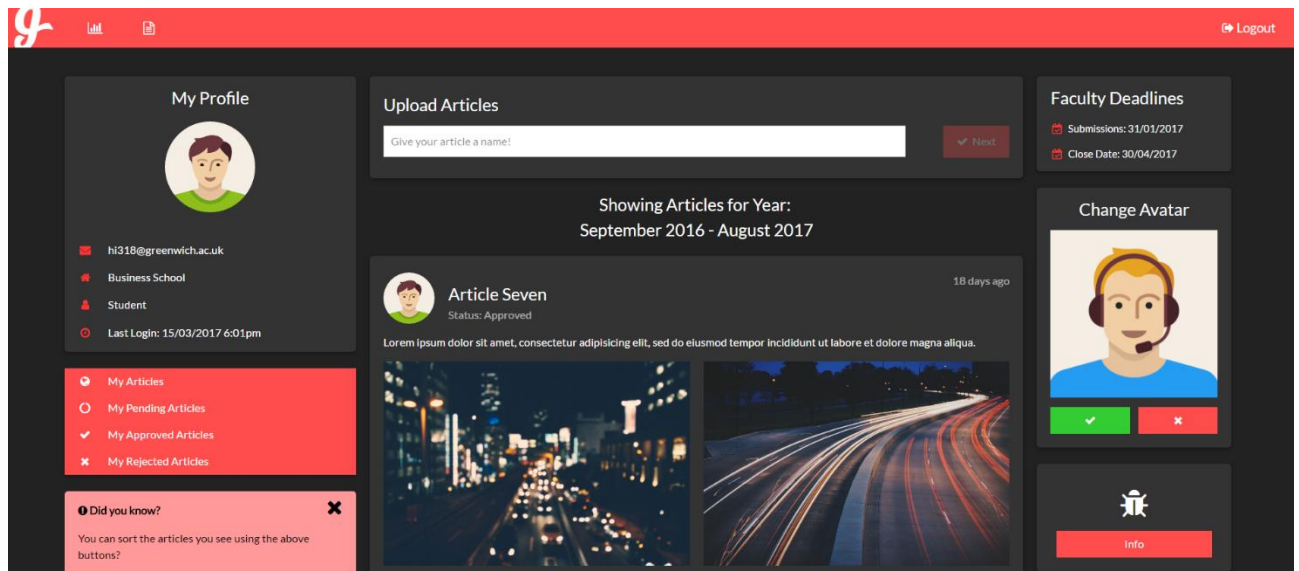


Figure 14 Student main page

The “**Upload articles**” section permits students to provide the submission with a title, a description and even add up to 3 images.

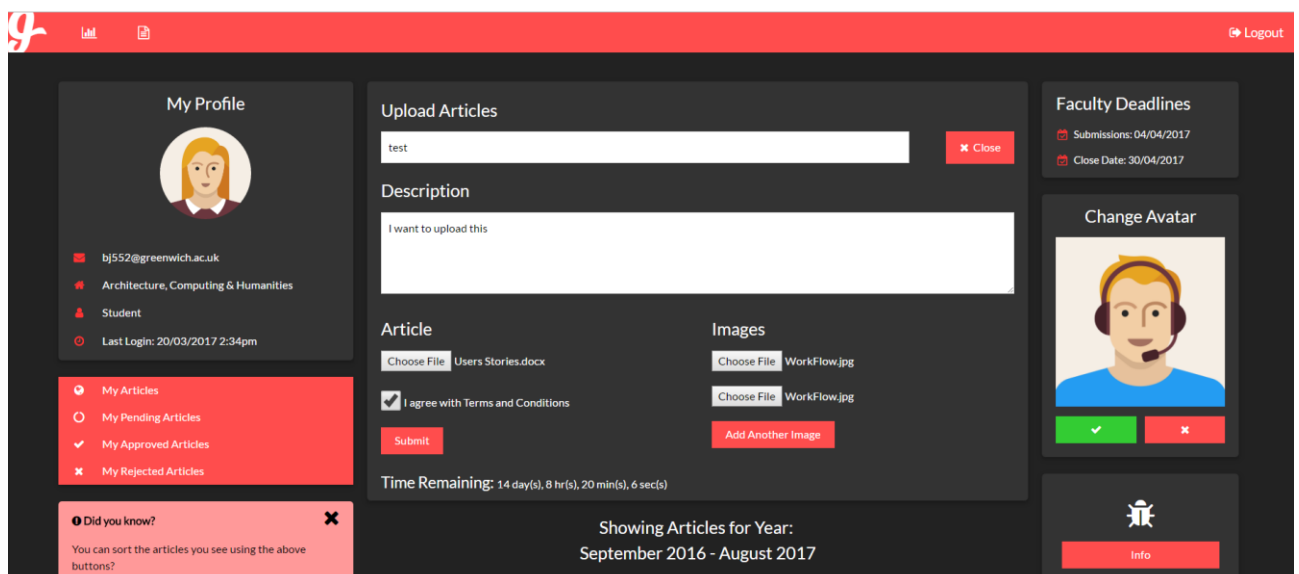


Figure 15 Upload Articles section

The **Marketing Manager** can see all the approved articles by faculties from his page. He can also download a zip file containing all the approved articles.

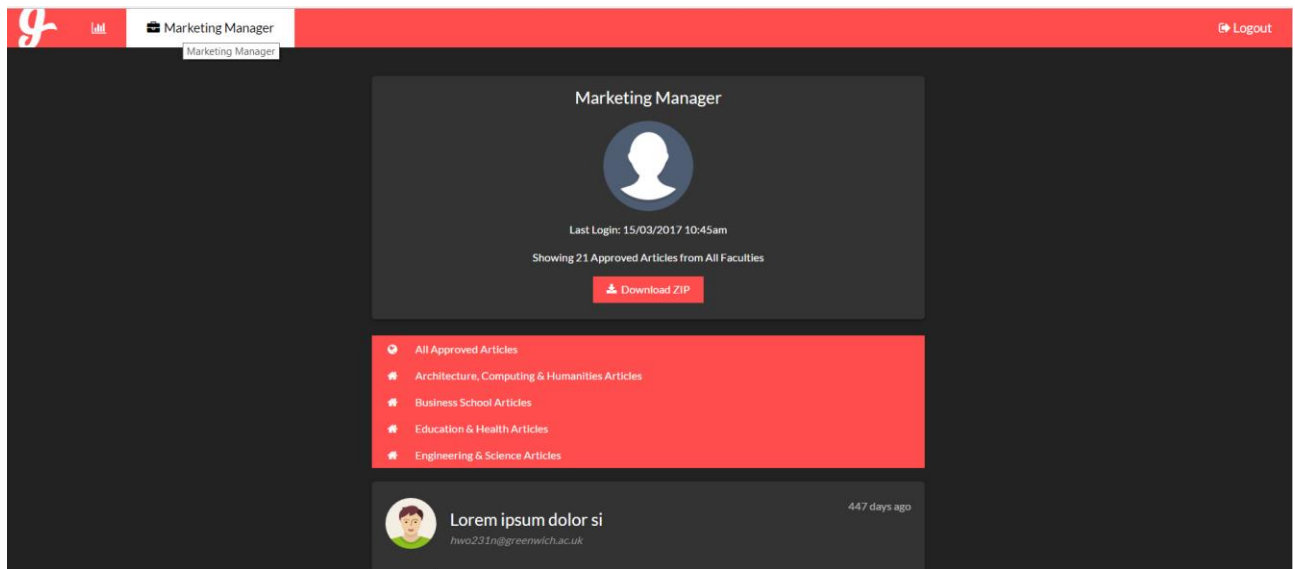


Figure 16 Marketing Manager page

Scrolling down, the Marketing Manager can view and download all the approved articles on his dedicated page.

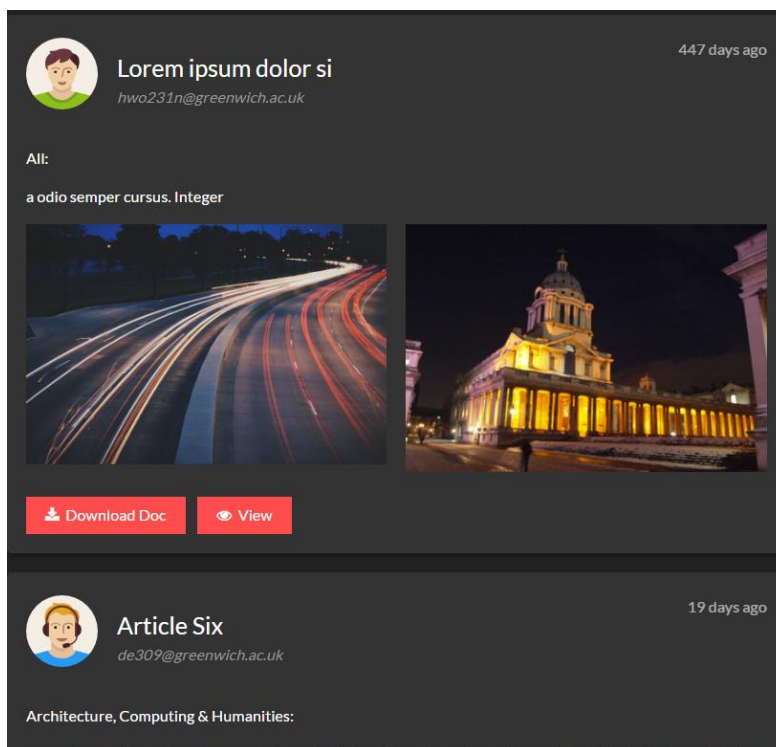


Figure 17 MM View articles

Marketing Co-Ordinator can only see all approved, pending and rejected articles from his faculty (e.g. Architecture, Computing and Humanities Faculty). From this page, he can filter the articles according to his desires.

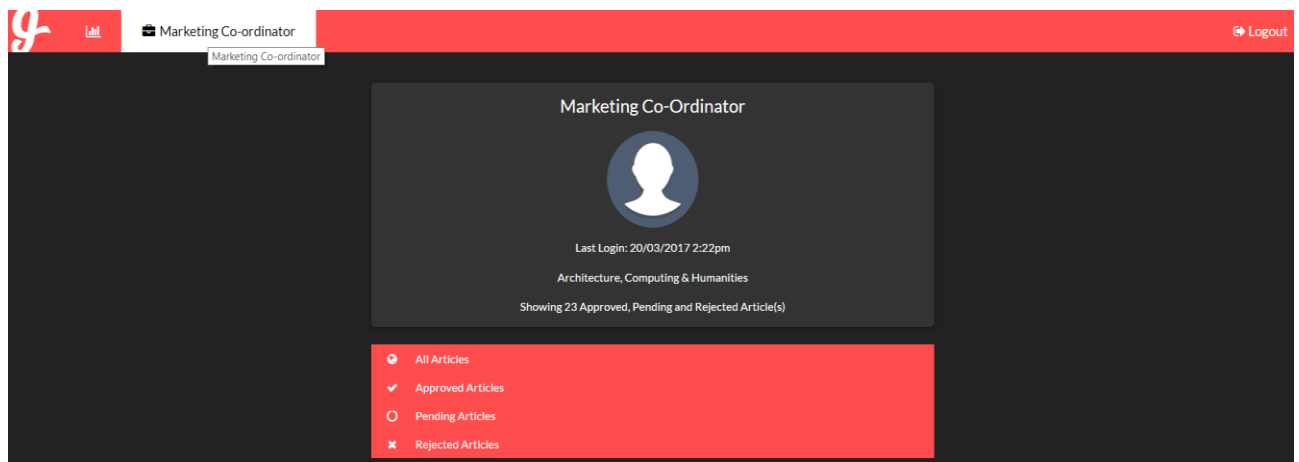


Figure 18 Marketing Coordinator page

A Marketing Co-Ordinator can download, view or edit an article submitted under the profile of his faculty.

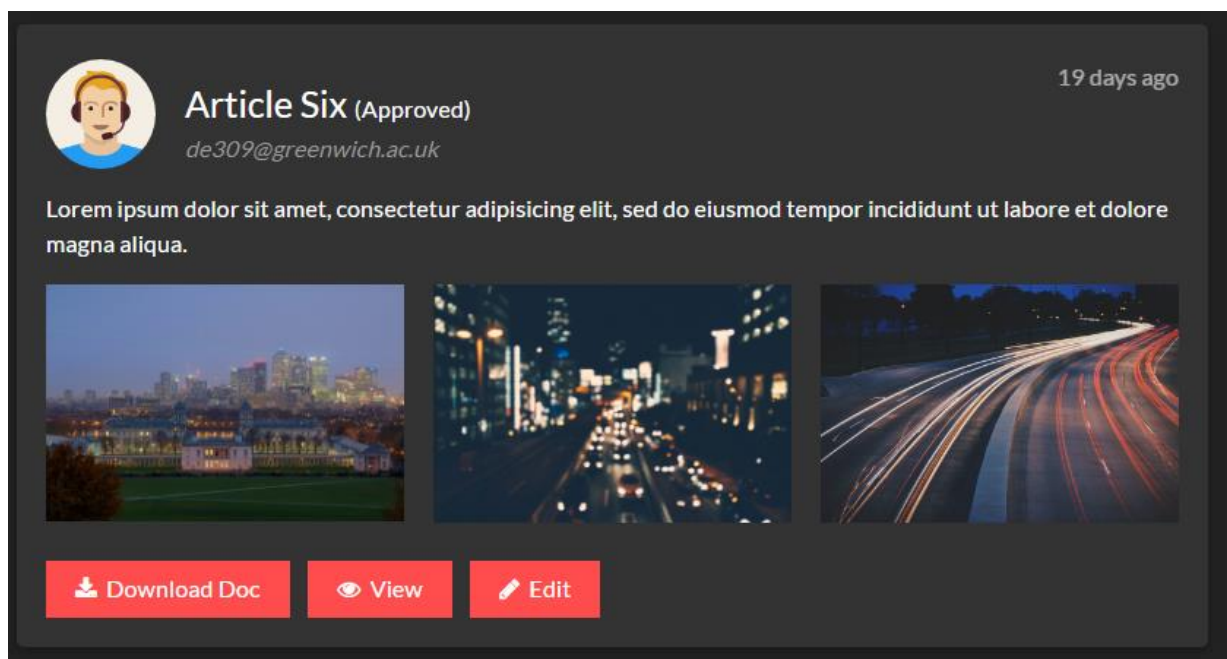


Figure 19 MC Article

A **guest account** is available for each faculty, and from this page, the guest can see all the approved articles from a chosen academic year (e.g. September 2016 – August 2017). The guest is also able to download separate articles to read.

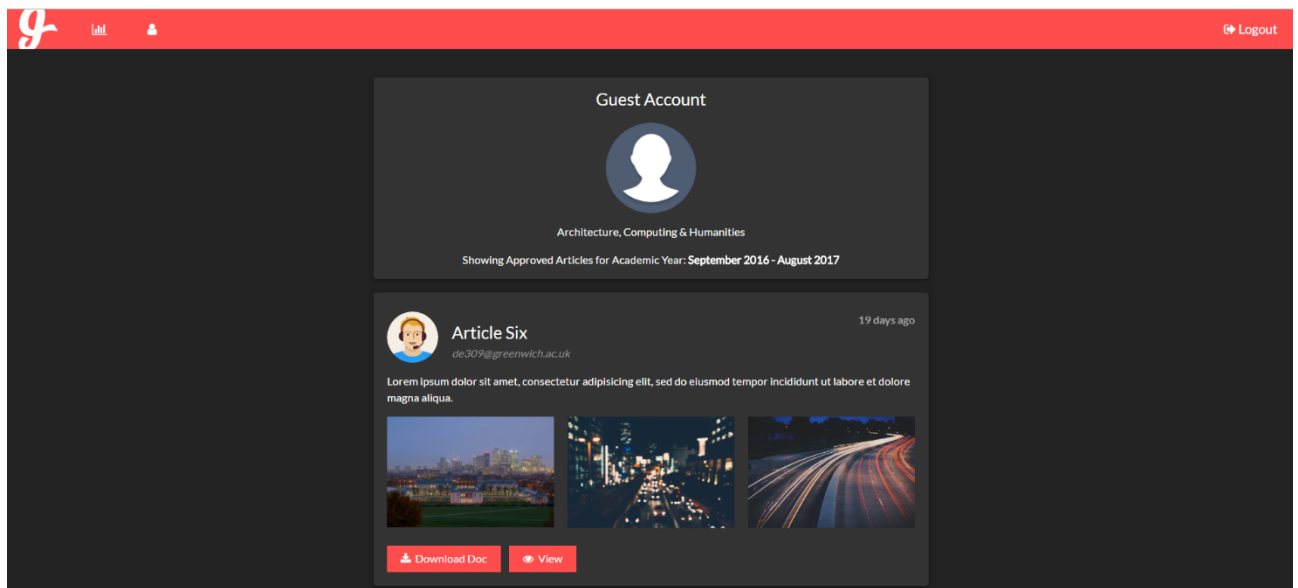


Figure 20 Guest page

The **Administrator page** is a complex one, because this role involves many attributions. As a general task, the administrator has to maintain the system data. This process includes: managing the User table, adding, editing or deleting the closure dates for each academic year, can view the reports for approved articles, group by academic year and faculty, and he is also able to access to the statistic page so he can monitor the use of the system.

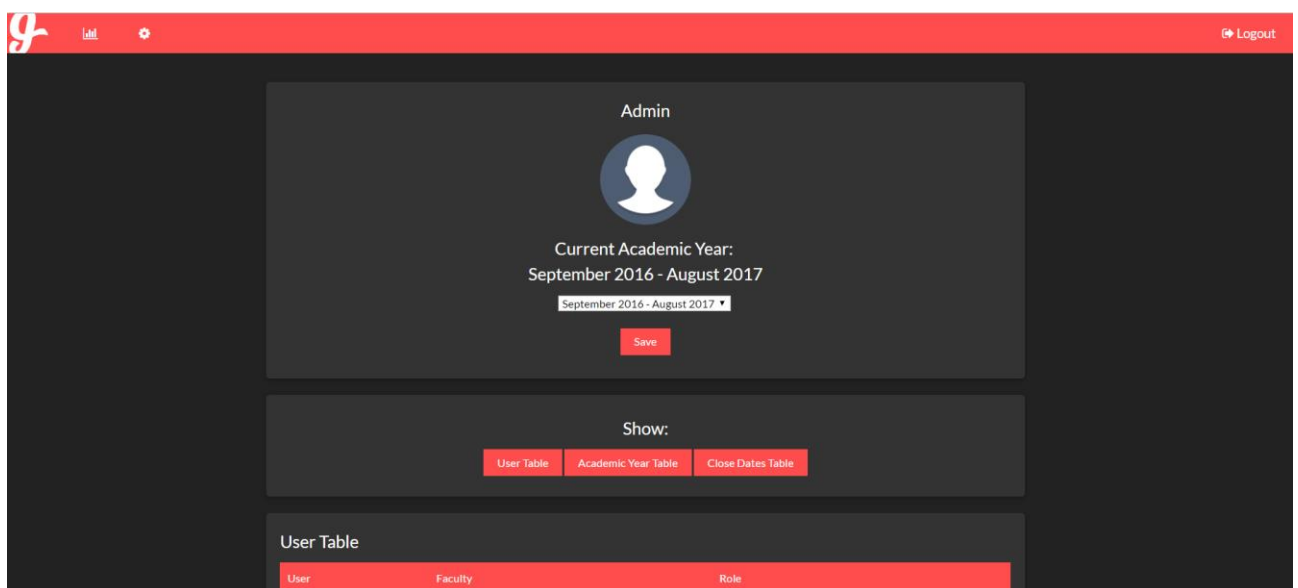


Figure 21 Admin page

From the academic year table, the administrator can group articles by academic year and edit and delete any of them.

Show:

User Table

Academic Year Table




Close Dates Table

Academic Year Table

Academic Year ID	Academic Year		
1516	September 2015 - August 2016	Edit	Delete
1617	September 2016 - August 2017	Edit	Delete
1718	September 2017 - August 2018	Edit	Delete
Academic Year ID	Academic Year		
Insert Content Here	Insert Content Here		add

Figure 22 Admin Academic Year table

From the user table, the administrator can edit and delete any user details.

Logout

User Table

User	Faculty	Role		
admin	All	Admin	Edit	Delete
marketingmanager	All	Marketing Manager	Edit	Delete
hwo231n	All	Student	Edit	Delete
FACHGuest	Architecture, Computing & Humanities	Guest	Edit	Delete
FACHCoordinator	Architecture, Computing & Humanities	Marketing Co-ordinator	Edit	Delete
cc9707t	Architecture, Computing & Humanities	Marketing Co-ordinator	Edit	Delete
de309	Architecture, Computing & Humanities	Student	Edit	Delete
hjkqb868	Architecture, Computing & Humanities	Student	Edit	Delete
hft775	Architecture, Computing & Humanities	Student	Edit	Delete
yf567	Architecture, Computing & Humanities	Student	Edit	Delete
hu80	Architecture, Computing & Humanities	Student	Edit	Delete
3nk3	Architecture, Computing & Humanities	Student	Edit	Delete
co675	Architecture, Computing & Humanities	Student	Edit	Delete
hkg6	Architecture, Computing & Humanities	Student	Edit	Delete

Figure 23 Admin user table

From the close date table, the administrator can set final submission dates for a specific faculty and a specific academic year and can edit and delete any of them.

Show:

User Table Academic Year Table Close Dates Table

Close Dates Table

Close Dates ID	Faculty ID	Submission Date	Final Submission Date	Academic Year ID		
1	Architecture, Computing & Humanities	2016-01-31	2016-04-22	1516	Edit	Delete
2	Business School	2016-01-31	2016-04-22	1516	Edit	Delete
3	Education & Health	2016-01-31	2016-04-22	1516	Edit	Delete
4	Engineering & Science	2016-01-31	2016-04-22	1516	Edit	Delete
5	Architecture, Computing & Humanities	2017-04-04	2017-04-30	1617	Edit	Delete
6	Business School	2017-01-31	2017-04-30	1617	Edit	Delete
7	Education & Health	2017-01-31	2017-04-30	1617	Edit	Delete
8	Engineering & Science	2017-01-31	2017-04-30	1617	Edit	Delete

Faculty ID	Submission Date	Final Submission Date	Academic Year ID	
FACH	dd/mm/yyyy	dd/mm/yyyy	1516	add

Figure 24 Admin close dates table

The **statistics page** is an important part of the system as it clearly shows how many articles have been submitted, how many have been approved or how many contributor were per faculty per academic year. Here, statistics such as most active user, most used browser, most viewed articles and most viewed pages are available as well.

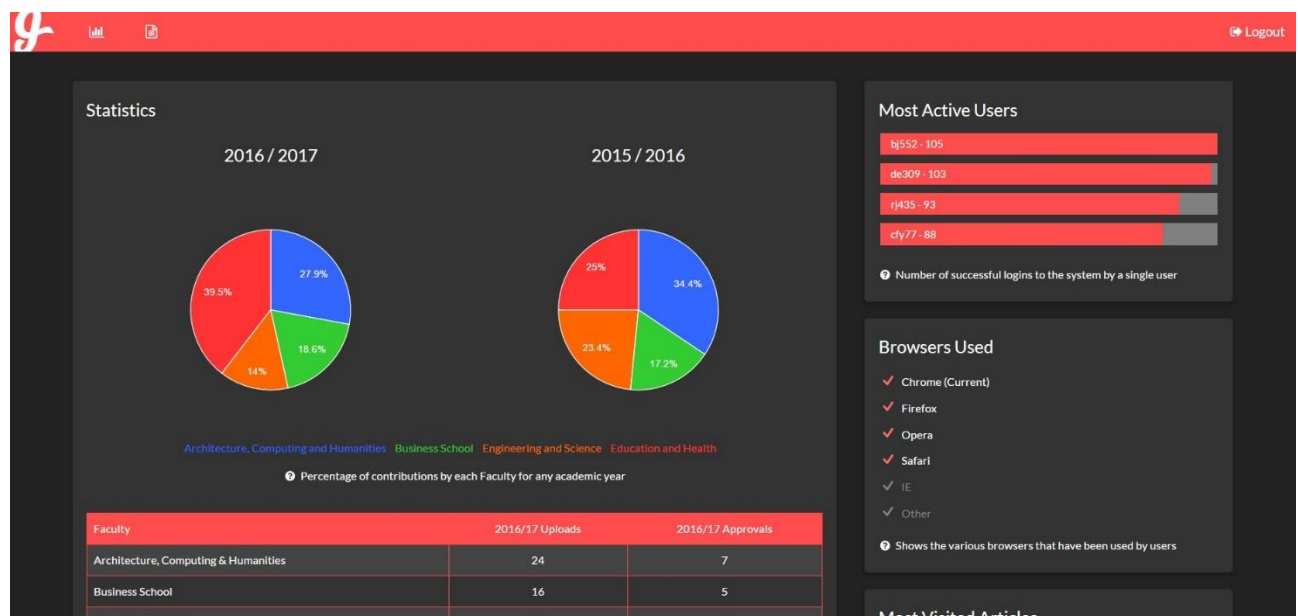


Figure 25 Statistics

Statistics page showing numbers of upload and approved articles and contributors.

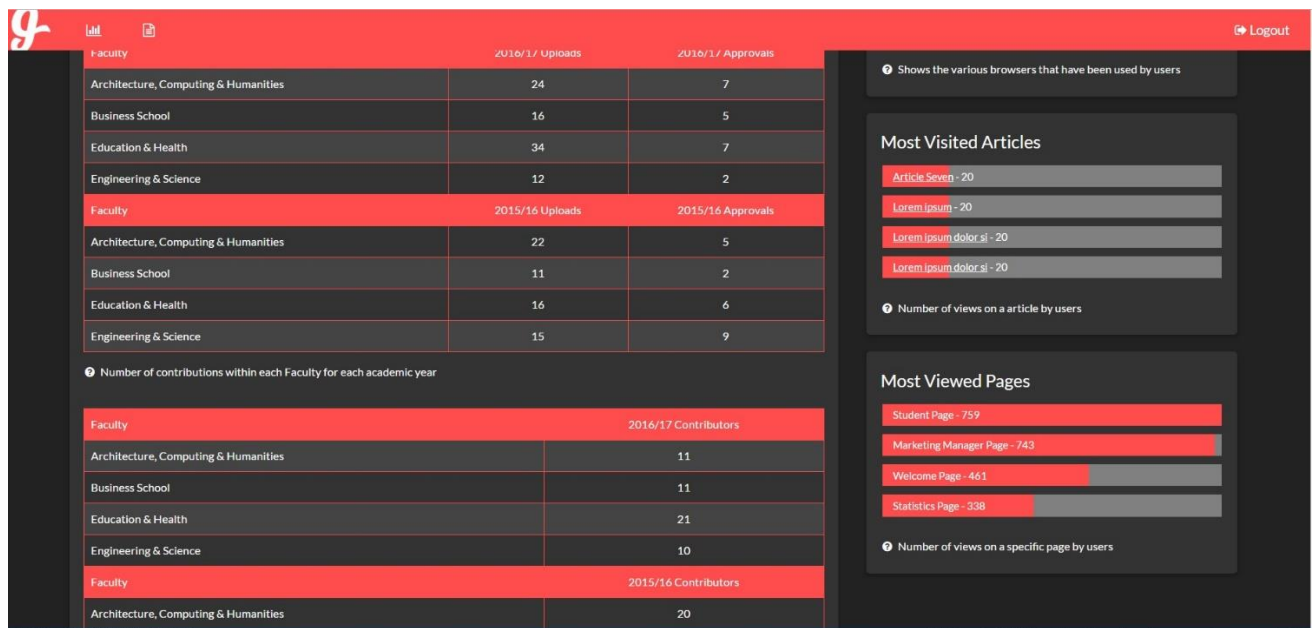


Figure 26 Statistics

There is also an **exception report** that shows the articles without a comment from the marketing co-ordinator from a specific faculty.

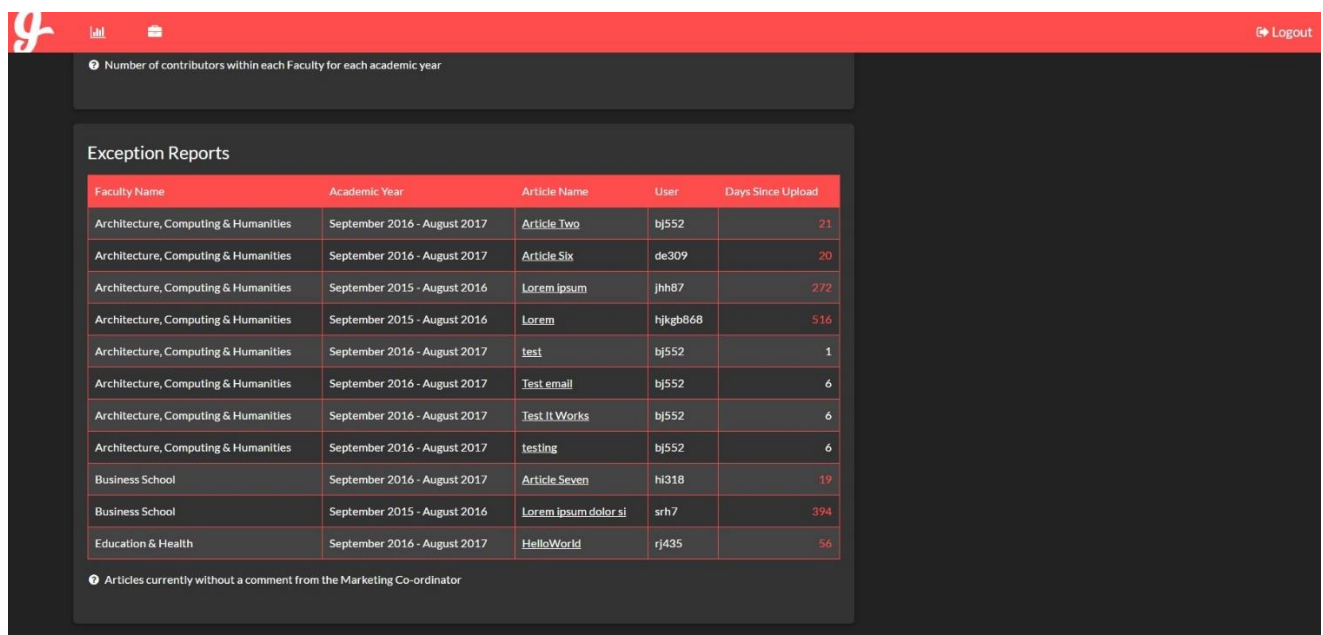


Figure 27 Exception Reports

7. Testing

7.1. Test plan

Test	What is being tested	How	Expected results
1.	See the website	Typing the Website address: www.greenmag.co.uk	Load a page that allow the user to insert the details to login or register in the fields provided.
2.	Register validation	Click on the register button without inserting any value	An error message should appear to inform the user.
3.	Register validation	Click on the register button entering not valid values	An error message should appear to inform the user.
4.	Register Page for new users (just student per the assumption)	Insert valid data into the fields provided and proceed with the registration clicking on the register button.	The system should allow the user to login and have a dedicate page.
5.	Logout	Click the logout button provided	The system is going to logout the user.
6.	Login validation	Click on the login button without inserting any value	An error message should appear to inform the user.
7.	Login validation	Click on the login button inserting not valid values	An error message should appear to inform the user.
8.	Login	Insert the data register into the registration phase and proceed with the login	The system should check the details and allow the user to log in
9.	Logout	Click the logout button provided	The system is going to logout the user.
10.	<i>Student last login</i>	Login into the system	Once the page is load under the profile picture is shown the last login date and time
11.	<i>Student: Upload articles</i>	Login as a student click next in the "Upload Articles" area.	A popup window is appearing with apposite fields to make a new submission.
12.	<i>Student: close the Upload articles section</i>	Click on the close button that replace the next button once the popup window appears.	The popup window will be close without making any submission.
13.	<i>Student: Submit one or more articles as Word documents to the magazine.</i>	Click on "choose file" in the article section into the popup window.	Load a file uploader popup window to let the user to select and add the file.
14.	<i>Student: Upload high quality images, e.g. photographs.</i>	Click on "choose file" in the Image section into the popup window.	Load a file uploader popup window to let the user to select and add the picture.
15.	<i>Student: Add another image</i>	Click on "Add Another Image" in the Image section into the popup window.	Another "choose file" button will appear in the image section.

16.	<i>Students: Agree to Terms and Conditions before they can submit.</i>	Ticked the T&C check box and then clicked the submit button.	Load the dedicate home page with the new article added.
17.	<i>Student upload article validation.</i>	Click on submit button without typing or inserting any value.	Error message will be show referring to the first field that has to be filled up.
18.	<i>Student upload article validation.</i>	Click on submit button typing just the article title	Error message will be show referring to the first field that has to be filled up.
19.	<i>Student upload article validation.</i>	Click on submit button typing just the article title and a description.	Error message will be show referring to the first field that has to be filled up.
20.	<i>Student upload article validation.</i>	Click on submit button typing the article title, a description and inserting the word document.	Error message will be show referring to the first field that has to be filled up.
21.	<i>Student T&C validation.</i>	Click on submit button without agree with the Terms and Conditions.	Error message will be show and the submission will not proceed.
22.	<i>Student: upload articles within the closure date.</i>	Login as a student click next in the "Upload Articles" area.	A popup window will appear with at the bottom the countdown of the time before the closure date.
23.	<i>Student upload articles within the closure date validation.</i>	Login as a student click next in the "Upload Articles" area	The next button will not open the popup window.
24.	<i>Student: update submission</i>	Select the "Update" button at the bottom of each article	A new page will Load where is possible to change the article title and description and choose a new file to upload.
25.	<i>Student: Update the changes to the submission</i>	Once the changes are made click on the "update details" button	The dedicate home page will be load with the changes made to the article.
26.	<i>From the student account download the single Word files on the machine.</i>	Select the "Download Doc" button at the bottom of each article.	The Word file download begins at the bottom of the page.
27.	<i>Student: view comment</i>	Select the "View Comment" button place below each article.	A list of comment will be show below the article. If not comment "No comment" will appear.
28.	<i>Student: Read the articles</i>	Selecting the provided "view" button	The page is loaded and just the article selected is shown.
29.	<i>Student: Go back to the home page</i>	Select the "back" button that appears once the "view" articles selection is made.	The dedicated home page is loaded.
30.	<i>Student: change avatar</i>	Login into the system and clicked on the "x" avatar button.	The "change avatar" section shows different avatar pictures once the "x" button is selected.
31.	<i>Student: confirm the avatar</i>	Login into the system and clicked on the tick in the "change avatar" section	Once the tick is clicked the page is reloaded with a new profile avatar image.

32.	<i>Student: Open "Info" section</i>	Login into the system as student and clicked on the info button.	A popup window is appearing to show some info about the university.
33.	<i>Student: close "info" section</i>	Clicked on the "x" in the popup window.	Once the "x" is clicked the popup window disappear and student home page is shown.
34.	<i>Student: change password</i>	Type the previews password, a new one and click on the "Update password" button	The page is reloaded and in the "Change password" section a successful message is shown
35.	<i>Student: change password email confirmation</i>	Type the previews password, a new one and click on the "Update password" button	Email present in the mail box for the user that logged in to confirm the successful password change.
36.	<i>Student: change password validation</i>	No values typed and click the "Update password" button.	In the "Change password" section an error message is shown.
37.	<i>Student: change password validation</i>	Same passwords typed and click on the "Update password" button	In the "Change password" section an error message is shown.
38.	<i>Student: change password validation</i>	type a wrong old password and a new one and click on the "Update password" button	In the "Change password" section an error message is shown.
39.	<i>Student: Filtering the articles</i>	Clicked on the filter button provided under "My articles" section	All the student articles are shown in the student page.
40.	<i>Student: Filtering the articles</i>	Clicked on the filter button provided under "My pending articles" section	The student Pending articles are shown in the student page.
41.	<i>Student: Filtering the articles</i>	Clicked on the filter button provided under "My approved articles" section	The student approved articles are shown in the student page.
42.	<i>Student: Filtering the articles</i>	Clicked on the filter button provided under "My rejected articles" section	The student rejected articles are shown in the student page.
43.	<i>Student: view all Articles</i>	Login into the system and select the all article button at the top of the page.	Load a new page with all the articles approved by the students of the same faculty in the current academic year.
44.	<i>Student: view the report for approved articles, grouped by academic year and faculty.</i>	Login into the system and select the statistic button at the top of the page.	Load a new page that shows statistical analysis such as <ul style="list-style-type: none"> • Number of contributions within each Faculty for each academic year. • Percentage of contributions by each Faculty for any academic year. • Number of contributors within each Faculty for each academic year. • Most Active Users • Browsers Used • Most Visited Articles • Most visited Pages
45.	<i>Access to the system as a Marketing Manager.</i>	Login with the Marketing Manager email and password provided according to the assumption made.	Load the Marketing Manager dedicated page.

46.	<i>Marketing Manager last login</i>	Login into the system	Once the page is load under the profile picture is shown the last login date and time
47.	<i>Marketing Manager: Selection of the interested contributions.</i>	Using the filter button provided in the page.	The articles are grouped by Faculty
48.	<i>Marketing Manager: Label for selection of the interested contributions.</i>	Using the filter button provided in the page.	A label is shown under the profile picture with the filter selection made. In the label count the number of approved articles.
49.	<i>From the Marketing Manager account download the ZIP file on the machine.</i>	Selecting the provide button at the top of the page into the Marketing Manager special account	The ZIP file download begins at the bottom of the page.
50.	<i>From the Marketing Manager account download the single Word files on the machine.</i>	Select the "Download Doc" button at the bottom of each article.	The Word file download begins at the bottom of the page.
51.	<i>Marketing Manager: Read the articles</i>	Selecting the provided "view" button	The page is loaded and just the article selected is shown.
52.	<i>Marketing Manager: Go back to the home page</i>	Select the "back" button that appears once the "view" articles selection is made.	The dedicated home page is loaded.
53.	<i>Marketing Manager: view the report for approved articles, grouped by academic year and faculty.</i>	Login into the system and select the statistic button at the top of the page.	Load a new page that shows statistical analysis such as <ul style="list-style-type: none"> • Number of contributions within each Faculty for each academic year. • Percentage of contributions by each Faculty for any academic year. • Number of contributors within each Faculty for each academic year. • Exception reports • Most Active Users • Browsers Used • Most Visited Articles • Most visited Pages
54.	<i>Access to the system as a Marketing Coordinator.</i>	Login with the Marketing Coordinator email and password provided, according to the assumption made.	Load the Marketing Coordinator dedicated page.
55.	<i>Marketing Coordinator: Visualize just the articles that belong to a specific faculty.</i>	Login with the Marketing Coordinator email and password provided, according to the assumption made.	Load the Marketing Coordinator dedicated page

56.	<i>Marketing Coordinator last login</i>	Login into the system	Once the page is load under the profile picture is shown the last login date and time
57.	<i>Marketing Coordinator: Send directly an email to the mail box when a submission is made.</i>	Upload a file as student and check into the Marketing Coordinator Mail box.	In the Marketing Coordinator mail box, the email is arrived when the submission was made. The email has a link that connect directly to the article.
58.	<i>Marketing Coordinator: Possibility to add and edit a comment or publish a submission.</i>	Select the “edit” button provided below each article.	Load a dedicate space to add or edit a comment, a selection of status and the possibility to submit.
59.	<i>From the Marketing Coordinator account download the single Word files on the machine.</i>	Select the “Download Doc” button at the bottom of each article.	The Word file download begins at the bottom of the page.
60.	<i>Marketing Coordinator: Read the articles</i>	Selecting the provided “view” button	The page is loaded and just the article selected is shown.
61.	<i>Marketing Coordinator: Go back to the home page</i>	Select the “back” button that appears once the “view” articles selection is made.	The dedicated home page is loaded.
62.	<i>Marketing Coordinator: view the report for approved articles, grouped by academic year and faculty.</i>	Login into the system and select the statistic button at the top of the page.	Load a new page that shows statistical analysis such as <ul style="list-style-type: none"> • Number of contributions within each Faculty for each academic year. • Percentage of contributions by each Faculty for any academic year. • Number of contributors within each Faculty for each academic year. • Exception reports • Most Active Users • Browsers Used • Most Visited Articles • Most visited Pages
63.	<i>Access to the system as Administrator.</i>	Login with the Administrator email and password provided, according to the assumption made.	Load the Administrator dedicated page.
64.	<i>Administrator: Select the current Academic year</i>	Select the Academic year from the dropdown list provided under the profile picture.	Re-load the page applying the changes and show them into the label provided under the profile picture.
65.	<i>Administrator: Show the User table</i>	Click on the “User table” button in the show section	Re-load the page showing the user table.

66.	Administrator: Edit the user	Select the “edit” button in the User table.	Load a page where is possible type a different value and save the changes.
67.	Administrator: Delete the user	Select the “delete” button in the User Table	Reload the page, deleting the value selected from the User table.
68.	Administrator: Show the Academic Year table	Click on the “Academic Year” button in the show section	Re-load the page showing the Academic Year table.
69.	Administrator: Possibility to edit the Academic years.	Select the “edit” button in the Academic Years table	Load a page where is possible type a different value and save the changes.
70.	Administrator: Possibility to delete the Academic years.	Select the “delete” button in the Academic Years Table	Reload the page, deleting the value selected from the Academic Years table.
71.	Administrator: Possibility to add the Academic years.	Choose the values in the table below the Academic Years Table and click the “add” button.	Reload the page with a new row in the Academic Years Table, populate of the values inserted.
72.	Administrator: Show the Close Dates table	Click on the “Close Dates” button in the show section	Re-load the page showing the Close Dates table.
73.	Administrator: Edit the closure dates for each academic year.	Select the “edit” button in the Close Dates table	Load a page where is possible with some dropdown lists to select a different value and save the changes.
74.	Administrator: Delete the closure dates for each academic year.	Select the “delete button” in the Close Dates Table	Reload the page, deleting the value selected from the Close Dates table.
75.	Administrator: Add the closure dates for each academic year.	Choose the values in the table below the Close Dates Table and click the “add” button	Reload the page with a new row in the Close Dates Table, populate of the values chosen.
76.	Administrator: view the report for approved articles, grouped by academic year and faculty.	Login into the system and select the statistic button at the top of the page.	Load a new page that shows statistical analysis such as <ul style="list-style-type: none"> • Number of contributions within each Faculty for each academic year. • Percentage of contributions by each Faculty for any academic year. • Number of contributors within each Faculty for each academic year. • Exception reports • Most Active Users • Browsers Used • Most Visited Articles • Most visited Pages
77.	Administrator: monitoring the use of the system	Login into the system and select the statistics at the top of the page	The page is going to load all the statistics plus some tables that show: the most active users, browser used and the most visited pages.

78.	Access to the system as a Guest	Login with the Guest email and password provided, according to the assumption made.	Load the Guest dedicated page.
79.	Guest: view the approved articles for the faculty they belong to.	Login into the system	Once the page is load a list of approved articles is shown in the page
80.	Guest: Read the articles	Selecting the provided “view” button	The page is loaded and just the article selected is shown.
81.	Guest: Go back to the home page	Select the “back” button that appears once the “view” articles selection is made.	The dedicated home page is loaded.
82.	From Guest account download the single Word files on the machine.	Select the “Download Doc” button at the bottom of each article.	The Word file download begins at the bottom of the page.
83.	Guest: view the report for approved articles, grouped by academic year and faculty.	Login into the system and select the statistic button at the top of the page.	Load a new page that shows statistical analysis such as <ul style="list-style-type: none"> • Number of contributions within each Faculty for each academic year. • Percentage of contributions by each Faculty for any academic year. • Number of contributors within each Faculty for each academic year. • Most Active Users • Browsers Used • Most Visited Articles • Most visited Pages
84.	Interface suitable on different devices.	Login into the system with a smartphone.	The website is loaded with an interface suitable for a mobile device.
85.	Interface suitable on different devices.	Login into the system with a tablet.	The website is loaded with an interface suitable for a mobile device.

Table 9 Test Plan

7.2. Test log

Test	What is being tested	How	Expected Results	Date	Actual results	Action taken
1.	See the website	Typing the Website address: www.greenmag.co.uk	Load a page that allow the user to insert the details to login or register in the fields provided.	27/02/2017	Ok	None
2.	Register validation	Click on the register button without inserting any value	An error message should appear to inform the user what field is missing.	27/02/2017	Ok	None
3.	Register validation	Click on the register button entering not valid values	An error message should appear to inform the user.	27/02/2017	Ok	None
4.	Register Page for new users (just student per the assumption)	Insert valid data into the fields provided and proceed with the registration clicking on the register button.	The system should allow the user to login and have a dedicate page.	27/02/2017	Ok	None
	Logout	Click the logout button provided	The system is going to logout the user.	27/02/2017	Ok	None
5.	Login validation	Click on the login button without inserting any value	An error message should appear to inform the user.	28/02/2017	Ok	None
6.	Login validation	Click on the login button inserting not valid values	An error message should appear to inform the user.	28/02/2017	Ok	None
7.	Login	Insert the data register into the registration phase and proceed with the login	The system should check the details and allow the user to log in	28/02/2017	Rejected- the details typed in result invalid	Make a new registration and re-test
8.	Login	Insert the data register into the registration phase and proceed with the login	The system should check the details and allow the user to log in	28/02/2017	Ok	None
9.	Logout	Click the logout button provided	The system is going to logout the user.	28/02/2017	Ok	None
10.	Student last login	Login into the system	Once the page is load under the profile picture is shown the last login date and time	08/03/2017	Ok	None
11.	Student: Upload articles	Login as a student click next in the	A popup window is appearing with apposite	15/03/2017	Not working with the	Re-test with a

		"Upload Articles" area.	fields to make a new submission.		user cc9707t	different user
12.	Student: Upload articles	Login as a student click next in the "Upload Articles" area.	A popup window is appearing with apposite fields to make a new submission.	15/03/2017	Ok	None
13.	Student: close the Upload articles section	Click on the close button that replace the next button once the popup window appears.	The popup window will be close without making any submission.	15/03/2017	Ok	None
14.	Student: Submit one or more articles as Word documents to the magazine.	Click on "choose file" in the article section into the popup window.	Load a file uploader popup window to let the user to select and add the file.	15/03/2017	Ok	None
15.	Student: Upload high quality images, e.g. photographs.	Click on "choose file" in the Image section into the popup window.	Load a file uploader popup window to let the user to select and add the picture.	15/03/2017	Ok	None
16.	Student: Add another image	Click on "Add Another Image" in the Image section into the popup window.	Another "choose file" button will appear in the image section.	15/03/2017	Ok	None
17.	Students: Agree to Terms and Conditions before they can submit.	Ticked the T&C check box and then clicked the submit button.	Load the dedicate home page with the new article added.	15/03/2017	Ok	None
18.	Student upload article validation.	Click on submit button without typing or inserting any value.	Error message will be show referring to the first field that has to be filled up.	15/03/2017	Ok	None
19.	Student upload article validation.	Click on submit button typing just the article title	Error message will be show referring to the first field that has to be filled up.	15/03/2017	Ok	None
20.	Student upload article validation.	Click on submit button typing just the article title and a description.	Error message will be show referring to the first field that has to be filled up.	15/03/2017	Ok	None
21.	Student upload article validation.	Click on submit button typing the article title, a description and inserting the word document.	Error message will be show referring to the first field that has to be filled up.	15/03/2017	Ok	None
22.	Student T&C validation.	Click on submit button without agree with the	Error message will be show and the submission will not proceed.	15/03/2017	Ok	None

		Terms and Conditions.				
23.	Student: upload articles within the closure date.	Login as a student click next in the "Upload Articles" area.	A popup window will appear with at the bottom the countdown of the time before the closure date.	15/03/2017	Ok	None
24.	Student upload articles within the closure date validation.	Login as a student click next in the "Upload Articles" area	The next button will not open the popup window.	15/03/2017	Ok	None
25.	Student: update submission	Select the "Update" button at the bottom of each article	A new page will Load where is possible to change the article title and description and choose a new file to upload.	15/03/2017	Ok	None
26.	Student: Update the changes to the submission	Once the changes are made click on the "update details" button	The dedicate home page will be load with the changes made to the article.	15/03/2017	Ok	None
27.	From the student account download the single Word files on the machine.	Select the "Download Doc" button at the bottom of each article.	The Word file download begins at the bottom of the page.	15/03/2017	Ok	None
28.	Student: view comment	Select the "View Comment" button place below each article.	A list of comment will be show below the article. If not comment "No comment" will appear.	15/03/2017	Ok	None
29.	Student: Read the articles	Selecting the provided "view" button	The page is loaded and just the article selected is shown.	15/03/2017	Ok	None
30.	Student: Go back to the home page	Select the "back" button that appears once the "view" articles selection is made.	The dedicated home page is loaded.	15/03/2017	Ok	None
31.	Student: change avatar	Login into the system and clicked on the "x" avatar button.	The "change avatar" section shows different avatar pictures once the "x" button is selected.	15/03/2017	Not working with the user cc9707t	Re-test with a different user
32.	Student: change avatar	Login into the system and clicked on the "x" avatar button.	The "change avatar" section shows different avatar pictures once the "x" button is selected.	15/03/2017	Ok	None
33.	Student: confirm the avatar	Login into the system and clicked on the tick in the "change avatar" section	Once the tick is clicked the page is reloaded with a new profile avatar image.	15/03/2017	Ok	None

34.	Student: Open "Info" section	Login into the system as student and clicked on the info button.	A popup window is appearing to show some info about the university.	15/03/2017	Ok	None
35.	Student: close "info" section	Clicked on the "x" in the popup window.	Once the "x" is clicked the popup window disappear and student home page is shown.	15/03/2017	Ok	None
36.	Student: change password	Type the previews password, a new one and click on the "Update password" button	The page is reloaded and in the "Change password" section a successful message is shown	15/03/2017	Ok	None
37.	Student: change password email confirmation	Type the previews password, a new one and click on the "Update password" button	Email present in the mail box for the user that logged in to confirm the successful password change.	15/03/2017	Ok	None
38.	Student: change password validation	No values typed and click the "Update password" button.	In the "Change password" section an error message is shown.	15/03/2017	Ok	None
39.	Student: change password validation	Same passwords typed and click on the "Update password" button	In the "Change password" section an error message is shown.	15/03/2017	Ok	None
40.	Student: change password validation	type a wrong old password and a new one and click on the "Update password" button	In the "Change password" section an error message is shown.	08/03/2017	Ok	None
41.	Student: Filtering the articles	Clicked on the filter button provided under "My articles" section	All the student articles are shown in the student page.	08/03/2017	Ok	None
42.	Student: Filtering the articles	Clicked on the filter button provided under "My pending articles" section	The student Pending articles are shown in the student page.	08/03/2017	Ok	None
43.	Student: Filtering the articles	Clicked on the filter button provided under "My approved articles" section	The student approved articles are shown in the student page.	08/03/2017	Ok	None
44.	Student: Filtering the articles	Clicked on the filter button provided under "My rejected articles" section	The student rejected articles are shown in the student page.	08/03/2017	Ok	None
45.	Student: view all Articles	Login into the system and select the all article	Load a new page with all the articles approved by the students of the same	15/03/2017	Ok	None

		button at the top of the page.	faculty in the current academic year.			
46.	Student: view the report for approved articles, grouped by academic year and faculty.	Login into the system and select the statistic button at the top of the page.	Load a new page that shows statistical analysis such as <ul style="list-style-type: none"> • Number of contributions within each Faculty for each academic year. • Percentage of contributions by each Faculty for any academic year. • Number of contributors within each Faculty for each academic year. • Most Active Users • Browsers Used • Most Visited Articles • Most visited Pages 	15/03/2017	Ok	None
47.	Access to the system as a Marketing Manager.	Login with the Marketing Manager email and password provided according to the assumption made.	Load the Marketing Manager dedicated page.	06/03/2017	Ok	None
48.	Marketing Manager last login	Login into the system	Once the page is load under the profile picture is shown the last login date and time	08/03/2017	Ok	None
49.	Marketing Manager: Selection of the interested contributions.	Using the filter button provided in the page.	The articles are grouped by Faculty	06/03/2017	Ok	None
50.	Marketing Manager: Label for selection of the interested contributions.	Using the filter button provided in the page.	A label is shown under the profile picture with the filter selection made. In the label count the number of approved articles.	15/03/2017	Ok	None
51.	From the Marketing Manager account download the ZIP file on the machine.	Selecting the provide button at the top of the page into the Marketing Manager special account	The ZIP file download begins at the bottom of the page.	06/03/2017	Internal Server Error	Reload ed and retry

52.	From the Marketing Manager account download the ZIP file on the machine.	Selecting the provide button at the top of the page into the Marketing Manager special account	The ZIP file download begins at the bottom of the page.	06/03/2017	Ok	None
53.	From the Marketing Manager account download the single Word files on the machine.	Select the "Download Doc" button at the bottom of each article.	The Word file download begins at the bottom of the page.	08/03/2017	Ok	None
54.	Marketing Manager: Read the articles	Selecting the provided "view" button	The page is loaded and just the article selected is shown.	15/03/2017	Ok	None
55.	Marketing Manager: Go back to the home page	Select the "back" button that appears once the "view" articles selection is made.	The dedicated home page is loaded.	15/03/2017	Ok	None
56.	Marketing Manager: view the report for approved articles, grouped by academic year and faculty.	Login into the system and select the statistic button at the top of the page.	Load a new page that shows statistical analysis such as <ul style="list-style-type: none"> • Number of contributions within each Faculty for each academic year. • Percentage of contributions by each Faculty for any academic year. • Number of contributors within each Faculty for each academic year. • Exception reports • Most Active Users • Browsers Used • Most Visited Articles • Most visited Pages 	08/03/2017	Ok	None
57.	Access to the system as a Marketing Coordinator.	Login with the Marketing Coordinator email and password provided, according to the assumption made.	Load the Marketing Coordinator dedicated page.	07/03/2017	Ok	None
58.	Marketing Coordinator: Visualize just	Login with the Marketing Coordinator email	Load the Marketing Coordinator dedicated page	07/03/2017	Ok	None

	the articles that belong to a specific faculty.	and password provided, according to the assumption made.				
59.	Marketing Coordinator last login	Login into the system	Once the page is load under the profile picture is shown the last login date and time	08/03/2017	Ok	None
60.	Marketing Coordinator: Send directly an email to the mail box when a submission is made.	Upload a file as student and check into the Marketing Coordinator Mail box.	In the Marketing Coordinator mail box, the email is arrived when the submission was made. The email has a link that connect directly to the article.	15/03/2017	Ok	None
61.	Marketing Coordinator: Possibility to add and edit a comment or publish a submission.	Select the “edit” button provided below each article.	Load a dedicate space to add or edit a comment, a selection of status and the possibility to submit.	07/03/2017	Ok	None
62.	From the Marketing Coordinator account download the single Word files on the machine.	Select the “Download Doc” button at the bottom of each article.	The Word file download begins at the bottom of the page.	15/03/2017	Ok	None
63.	Marketing Coordinator: Read the articles	Selecting the provided “view” button	The page is loaded and just the article selected is shown.	15/03/2017	Ok	None
64.	Marketing Coordinator: Go back to the home page	Select the “back” button that appears once the “view” articles selection is made.	The dedicated home page is loaded.	15/03/2017	Ok	None
65.	Marketing Coordinator: view the report for approved articles, grouped by academic year and faculty.	Login into the system and select the statistic button at the top of the page.	Load a new page that shows statistical analysis such as <ul style="list-style-type: none"> • Number of contributions within each Faculty for each academic year. • Percentage of contributions by each Faculty for any academic year. • Number of contributors within each Faculty for each academic year. 	08/03/2017	Ok	None

			<ul style="list-style-type: none"> • Exception reports • Most Active Users • Browsers Used • Most Visited Articles • Most visited Pages 			
66.	Access to the system as Administrator.	Login with the Administrator email and password provided, according to the assumption made.	Load the Administrator dedicated page.	07/03/2017	Ok	None
67.	Administrator: Select the current Academic year	Select the Academic year from the dropdown list provided under the profile picture.	Re-load the page applying the changes and show them into the label provided under the profile picture.	15/03/2017	Ok	None
68.	Administrator: Show the User table	Click on the "User table" button in the show section	Re-load the page showing the user table.	15/03/2017	Ok	None
69.	Administrator: Edit the user	Select the "edit" button in the User table.	Load a page where is possible type a different value and save the changes.	15/03/2017	Ok	None
70.	Administrator: Delete the user	Select the "delete" button in the User Table	Reload the page, deleting the value selected from the User table.	15/03/2017	Ok	None
71.	Administrator: Show the Academic Year table	Click on the "Academic Year" button in the show section	Re-load the page showing the Academic Year table.	15/03/2017	Ok	None
72.	Administrator: Possibility to edit the Academic years.	Select the "edit" button in the Academic Years table	Load a page where is possible type a different value and save the changes.	07/03/2017	Ok	None
73.	Administrator: Possibility to delete the Academic years.	Select the "delete" button in the Academic Years Table	Reload the page, deleting the value selected from the Academic Years table.	07/03/2017	Ok	None
74.	Administrator: Possibility to add the Academic years.	Choose the values in the table below the Academic Years Table and click the "add" button.	Reload the page with a new row in the Academic Years Table, populate of the values inserted.	07/03/2017	Ok	None
75.	Administrator: Show the Close Dates table	Click on the "Close Dates" button in the show section	Re-load the page showing the Close Dates table.	15/03/2017	Ok	None
76.	Administrator: Edit the closure	Select the "edit" button in the Close Dates table	Load a page where is possible with some dropdown lists to select a	07/03/2017	Ok	None

	dates for each academic year.		different value and save the changes.			
77.	Administrator: Delete the closure dates for each academic year.	Select the "delete button" in the Close Dates Table	Reload the page, deleting the value selected from the Close Dates table.	07/03/2017	Ok	None
78.	Administrator: Add the closure dates for each academic year.	Choose the values in the table below the Close Dates Table and click the "add" button	Reload the page with a new row in the Close Dates Table, populate of the values chosen.	07/03/2017	Ok	None
79.	Administrator: view the report for approved articles, grouped by academic year and faculty.	Login into the system and select the statistic button at the top of the page.	Load a new page that shows statistical analysis such as <ul style="list-style-type: none"> • Number of contributions within each Faculty for each academic year. • Percentage of contributions by each Faculty for any academic year. • Number of contributors within each Faculty for each academic year. • Exception reports • Most Active Users • Browsers Used • Most Visited Articles • Most visited Pages 	08/03/2017	Ok	None
80.	Administrator: monitoring the use of the system	Login into the system and select the statistics at the top of the page	The page is going to load all the statistics plus some tables that show: the most active users, browser used and the most visited pages.	08/03/2017	Ok	None
81.	Access to the system as a Guest	Login with the Guest email and password provided, according to the assumption made.	Load the Guest dedicated page.	08/03/2017	Ok	None
82.	Guest: view the approved articles for the faculty they belong to.	Login into the system	Once the page is load a list of approved articles is shown in the page	08/03/2017	Ok	None
83.	Guest: Read the articles	Selecting the provided "view" button	The page is loaded and just the article selected is shown.	15/03/2017	Ok	None

84.	Guest: Go back to the home page	Select the “back” button that appears once the “view” articles selection is made.	The dedicated home page is loaded.	15/03/2017	Ok	None
85.	From Guest account download the single Word files on the machine.	Select the “Download Doc” button at the bottom of each article.	The Word file download begins at the bottom of the page.	15/03/2017	Ok	None
86.	Guest: view the report for approved articles, grouped by academic year and faculty.	Login into the system and select the statistic button at the top of the page.	Load a new page that shows statistical analysis such as <ul style="list-style-type: none"> • Number of contributions within each Faculty for each academic year. • Percentage of contributions by each Faculty for any academic year. • Number of contributors within each Faculty for each academic year. • Most Active Users • Browsers Used • Most Visited Articles • Most visited Pages 	08/03/2017	Ok	None
87.	Interface suitable on different devices.	Login into the system with a smartphone.	The website is loaded with an interface suitable for a mobile device.	08/03/2017	Ok	None
88.	Interface suitable on different devices.	Login into the system with a tablet.	The website is loaded with an interface suitable for a mobile device.	08/03/2017	Ok	None

Table 10 Test Log

Legend

- Registration Test
 Login Test
 Student Page Test
 Marketing Manager Page Test
- Marketing Coordinator Page Test
 Administrator Page Test
 Guest Page Test
- Different Device Interface Test

8. Conclusion

As a conclusion, working in team was a productive, creative and fun way of learning things and the agile methodology worked well for all of us and made us more responsible. The members engaged in all the weekly meetings, came up with innovative ideas and solutions for our product. The product was finally a successful one as the feedback of the presentation has shown. The distribution of the tasks between the members was balanced, so everyone could add valuable work at the final product, admitting, however, that the development of the system was the most complex part of the process.

Working on a web-based secure role-based system for collecting student contributions for an annual university magazine was challenging, but in the same time it was a subject of interest for all of us, as we all are students and we think that this kind of system will really help the students' societies to get involved in university activities.

Finally, the product could be further tested, evaluated and improved in terms of user interface design and user experience. As the system was tested only by the tester of the team and shown in a public presentation, we cannot conclude that the website is ready for real world use, but this is something that will be further conducted by the team.