

GucciGram

Software Requirements Specification

Version 1.0

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1. Introduction

1.1 Purpose

The purpose of this document is to present a detailed description and outline the requirements for Social Network web application. It will explain the purpose and product features, the interfaces of the system, what the system will do and constraints under which it must operate.

1.2 Intended Audience and Reading Suggestions

The intended audience of this document includes all stakeholders of GucciGram project who are supposed to review and sign-off this document. The primary stakeholders of the system include customers. It will be useful for those who want to post photos and make their own blog.

1.3 Project Scope

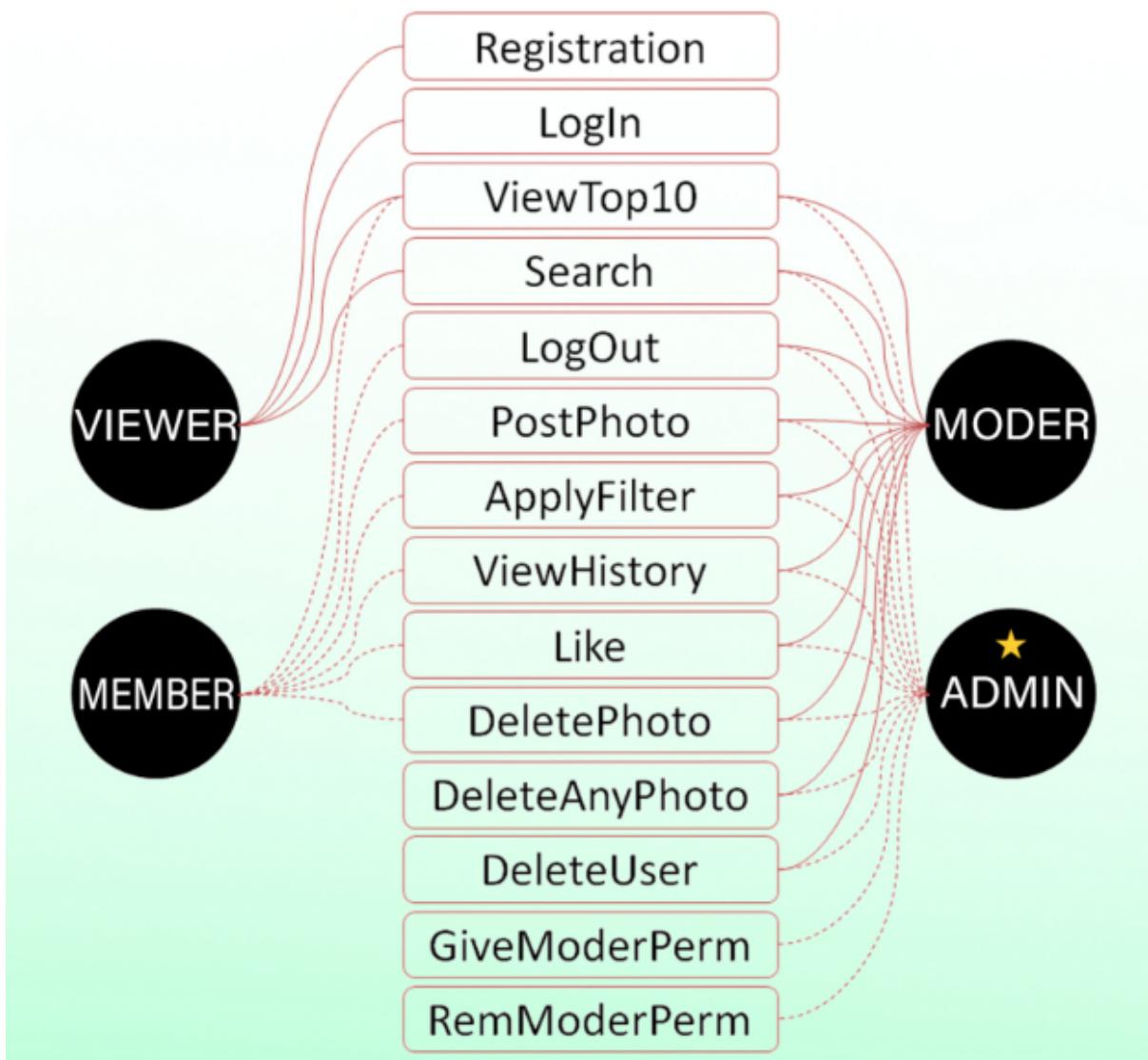
The system will provide all the functionality so that the user can create, share and engage with photo content, like, comment, search other creators. On the privileged users side will be provided with moderation instruments to keep the content in legal bounds, with the ability to delete users or their posts, valuable statistical insights.

2. Overall Description

2.1 Product Features

- User management (role management, login, registration, delete).
- Image posting (upload photo, like, comment).
- Display top 10 liked posts.
- Displaying posts of a user.
- Search users.

2.2 User Classes and Characteristics



Use Case Description:

#	Function	Roles	Description
1	Registration	Viewer	
2	Login	Viewer	
3	ViewTop10	All	Shows top 10 liked photos
4	Search	All	Search by username
5	LogOut	Admin, Moder, Member	
6	PostPhoto	Admin, Moder, Member	Upload photo to site
7	ApplyFilter	Admin, Moder, Member	Apply filter to photo
8	ViewHistory	Admin, Moder, Member	Shows all photos of a certain user
9	Like	Admin, Moder, Member	Lets user to left one reaction on photo
10	DeletePhoto	Admin, Moder, Member	Lets user delete personal photos
11	DeleteAnyPhoto	Admin, Moder	Delete any photo on site
12	DeleteUser	Admin, Moder	Delete any user on site except of admin
13	GiveModerPermission	Admin	Make any user a moderator
14	RemModerPermission	Admin	Remove moderation permissions

2.4 Operating Environment

Operating environment for the web service is as listed below:

- Databases: MS SQL;
- Client/server system with dynamic content;
- Monolith architecture;

- Operating system: Windows Server;
- Platform: .Net Core 2.0.

2.5 Assumptions and Dependencies

The system will be developed by using C# language. Other dependencies will also include:

- .Net Core 2.0
- AspNetCore
- Razor Pages
- EntityFrameworkCore
- Net.Http.Headers
- MS SQL
- Azure Cloud
- Azure WebApp Services

The system will be available and usable in common web browsers like Microsoft Edge. Microsoft Mvc Razor Pages will let the system work as a native app without reloading the page.

3. Requirements specifications

3.1 Functional Requirements

- User registration: The system should provide the ability to register new users with mandatory fields such as login, password, email address and article.
- Authentication and Authorization: The system must validate the user's login and password to access their record and grant appropriate access rights depending on the user's file.
- View Posts: Users should be able to view the posts that have been published on the site, including the top 10 most popular posts.
- Photo Upload: Such users must be able to upload their photos to the site from a variety of sources, such as a computer, mobile device, or URL.

- Commenting on posts: Users should be able to leave comments on posts, including their own comments and responses to other users' comments.
- Likes: Users should be able to like posts, including posts by other users.
- Deleting own posts: Users should be able to delete their own posts from the site.
- User Search: Users should be able to search for other users by name or nickname.
- Privacy Settings: Users should be able to achieve the privacy of their profile and posts by controlling who can see their activity.
- Administrative panel: The administrator must have access to a special administrative panel where he can manage users, moderators, view posts, as well as view statistics and analyze site data.

3.2 Non-functional Requirements

Security:

1. Authentication: The system must provide secure user authentication, including password protection, limiting incorrect login attempts, and the ability to use two-factor authentication.
2. Data protection: The system must ensure encryption of confidential information such as passwords, email addresses and personal data of users, and must also use mechanisms to protect against SQL injections and other attacks.

3. Access level: The system must have mechanisms to manage the levels of user access to functions and resources, providing access rights restrictions depending on the user's role.
4. Monitoring and Logging: The system should be able to monitor user activity and log events to identify potential security threats and analyze events in case of problems.
5. Updates and Patches: The system should be able to quickly implement updates and security patches to identify and fix vulnerabilities.

Performance:

1. Performance: The system should have a fast response and a low response time to user requests, ensuring optimal performance and loading pages without noticeable delays.
2. Scalability: The system must be ready to scale, ensuring efficient processing of growing volume of data and user requests without a drop in performance.
3. Database optimization: The system should have an optimized database structure and queries for quick access to the necessary information.
4. Caching: The system should use caching mechanisms to save frequently used data and requests, which improves performance and reduces the load on the server.
5. Performance testing: The system should be subjected to performance testing to identify possible problems and improve performance and efficiency.

Reliability:

1. Reliability: The system must be stable and reliable, ensuring uninterrupted operation without unforeseen failures and failures.
2. Disaster Recovery: The system must have disaster recovery mechanisms that allow for rapid recovery from accidental failures or loss of connectivity.
3. Data Backup: The system should have a regular procedure to back up data to ensure its security and the ability to restore it if needed.
4. Availability monitoring: The system should have availability monitoring mechanisms to detect problems in time and ensure prompt response to them.
5. Load Testing: The system should be subjected to load testing to verify its stability and reliability under heavy user load.

Usability:

1. Intuitive interface: The system should have an intuitive and easy-to-use interface that allows users to quickly navigate and perform the necessary actions.
2. Responsive design: The system should be developed using a responsive design that allows the appearance and functionality to adapt to different devices and screen sizes.
3. Accessibility: The system should be accessible to users with different needs, including people with disabilities, by taking into account accessibility standards and providing adequate alternatives.

4. Documentation and Support: The system should have clear and detailed documentation and support for users in case of questions or problems.

5. Personalization: The system should allow users to customize their experience, including appearance, privacy settings, and personalization.

Supportability:

1. The system shall be available and usable in Google Chrome, MS Edge browsers.

3.3 List of User Stories

1. As a user, I want to register on the site to have my own account.
2. As a user, I want to log in to my account to access personalized content.
3. As a user, I want to see the top 10 posts to keep up with the most current photos.
4. As a user, I want to search for other users to find their profiles.
5. As a user, I want to browse a specific user's posts to see their photos.
6. As a user, I want to leave comments under posts to express my opinion.
7. As a user, I want to like posts to show that I like the photo.
8. As a user, I want to view my own profile page to view my posts and information about myself.
9. As a user, I want to add a bio to my profile so that other users can learn more about me.
10. As a registered user, I would like to log out of my account to ensure the security of my profile.
11. As a registered user, I want to post my photos to share with other users.
12. As a registered user, I want to comment on other users' photos to communicate with them.
13. As a registered user, I want to like other users' photos to show them my support.
14. As a registered user, I want to delete my own photos in order to have control over my content.

15. As a moderator, I want to be able to remove any user's photos if they violate the rules.
16. As a moderator, I want to be able to delete user accounts that violate the rules.
17. As an administrator, I want to be able to assign the moderator role to trusted users.
18. As an administrator, I want to be able to remove the moderator role from users who no longer need these rights.
19. As an admin or moderator, I want to see a list of all users to have full control over them.
20. As an admin or moderator, I want to be able to block and unblock user accounts.
21. As an admin or moderator, I want to be able to grant and revoke the moderator role from users.
22. As an admin or moderator, I want to be able to view the full list of user posts and comments to control content.
23. As a user, I want to be able to reset my password if I forget it.
24. As a user, I would like to receive a registration confirmation email.
25. As a user, I want to be able to change my password to keep my account secure.
26. As a user, I want to have a user-friendly site interface to easily navigate and find the features I need.
27. As a user, I want to be able to download photos from different sources (computer, mobile, URL, etc.).
28. As a user, I want to be able to edit the description of my post after it's published.
29. As a user, I want to be able to search for users by their first name or nickname.
30. As a user, I want my password to be encrypted to keep my account secure.
31. As a user, I want my personal data to be protected from unauthorized access.

32. As a user, I want to be able to use the site on a mobile device for convenience.
33. As a user, I want a responsive design so that the site displays correctly on different screen sizes.
34. As a user, I want the site to load quickly to avoid unnecessary waiting.
35. As a user, I want the site to be stable and not cause errors during use.
36. As a user, I want to be able to follow other users and receive updates on their posts.
37. As a user, I want to be able to receive notifications of new comments or likes on my posts.
38. As a user, I want to be able to view my own posts to see their information and comments.
39. As a user, I want to be able to browse the posts I've liked so I can quickly find the photos I like.
40. As a user, I want to be able to add photos to my favorites list to save and track certain posts.
41. As a registered user, I want to be able to edit my profile (photo, bio, etc.) to update my details.
42. As a registered user, I want to be able to change my profile privacy settings to control who can see my posts and information.
43. As a moderator, I want to be able to flag suspicious or objectionable photos for review by administrators.
44. As a moderator, I want to be able to block comments that violate site rules.
45. As an administrator, I want to be able to view and analyze site statistics such as user activity and post popularity.
46. As an admin, I want to be able to send notifications to users about important site updates or events.
47. As a user, I want to be able to change my username to improve my personal identification.
48. As a user, I want to be able to change my email address to update my contact information.

49. As a user, I want to be able to view the newest posts to keep up with the latest updates.

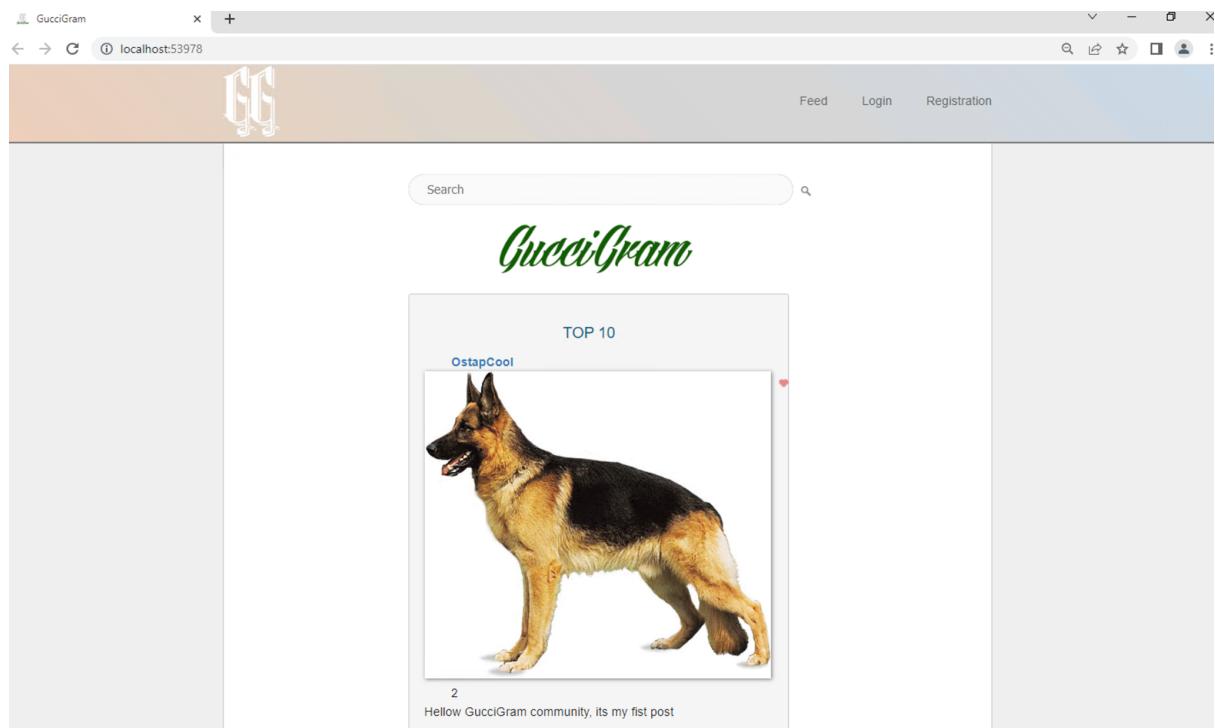
50. As a user, I want to be able to add hashtags to my posts to tag them by topic or category.

4. Other Requirements

4.1 User Interfaces

The following mock-ups describe most features of the user interface.

Index page with top 10 content and a search bar



Search results page

The screenshot shows the search results page. At the top, there is a navigation bar with links for Feed, Admin menu, Statistics, User Page, and Logout. Below the navigation bar is a search bar with the placeholder "Search" and a magnifying glass icon. The main content area is titled "Search results". It displays a single result card for "OstapCool Gentleman" with the subtitle "I am a pirate". At the bottom of the page, there is a copyright notice: "© 2023 - GUCCIGRAM".

Search results page when nothing found

The screenshot shows the search results page when nothing is found. The layout is identical to the previous screenshot, featuring a navigation bar at the top and a search bar. The main content area displays the message "No users found, sorry :(

The Login page

The screenshot shows the login page. At the top, there is a navigation bar with links for Feed, Login, and Registration. Below the navigation bar is the GucciGram logo. The main content area contains a form for logging in. It has two input fields: "Email" containing "admin@mail.com" and "Password" containing "*****". There is also a blue "Log In" button. At the bottom of the page, there is a copyright notice: "© 2023 - GUCCIGRAM".

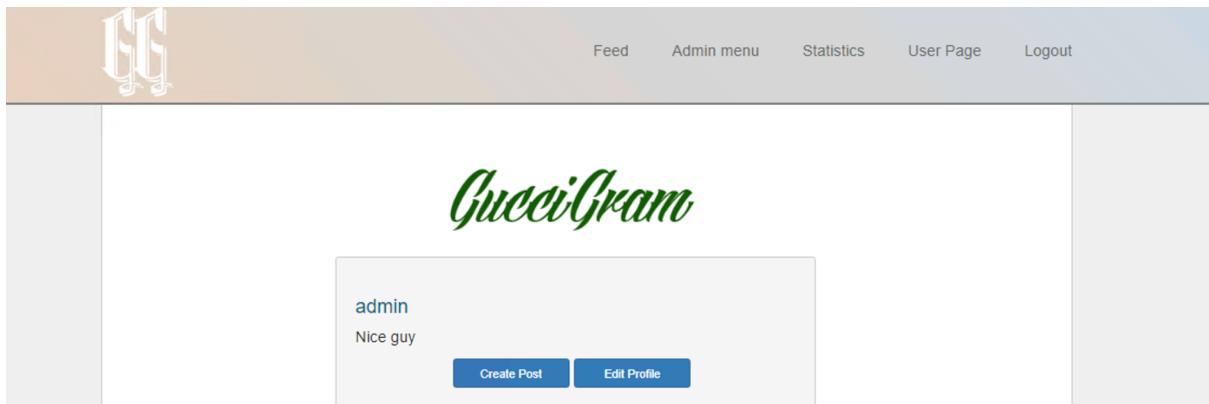
Failed login attempt

The screenshot shows the GucciGram login interface. At the top, there is a navigation bar with a logo on the left and links for "Feed", "Login", and "Registration" on the right. The main area features the "GucciGram" logo in a stylized green font. Below the logo is a login form. The "Email" field contains "admin@mail.com" and has a red border, indicating an error. A red error message above the form states: "• Invalid email or password". The "Password" field is empty. A blue "Log In" button is at the bottom of the form. At the very bottom of the page, there is a copyright notice: "© 2023 - GUCCIGRAM".

Registration page

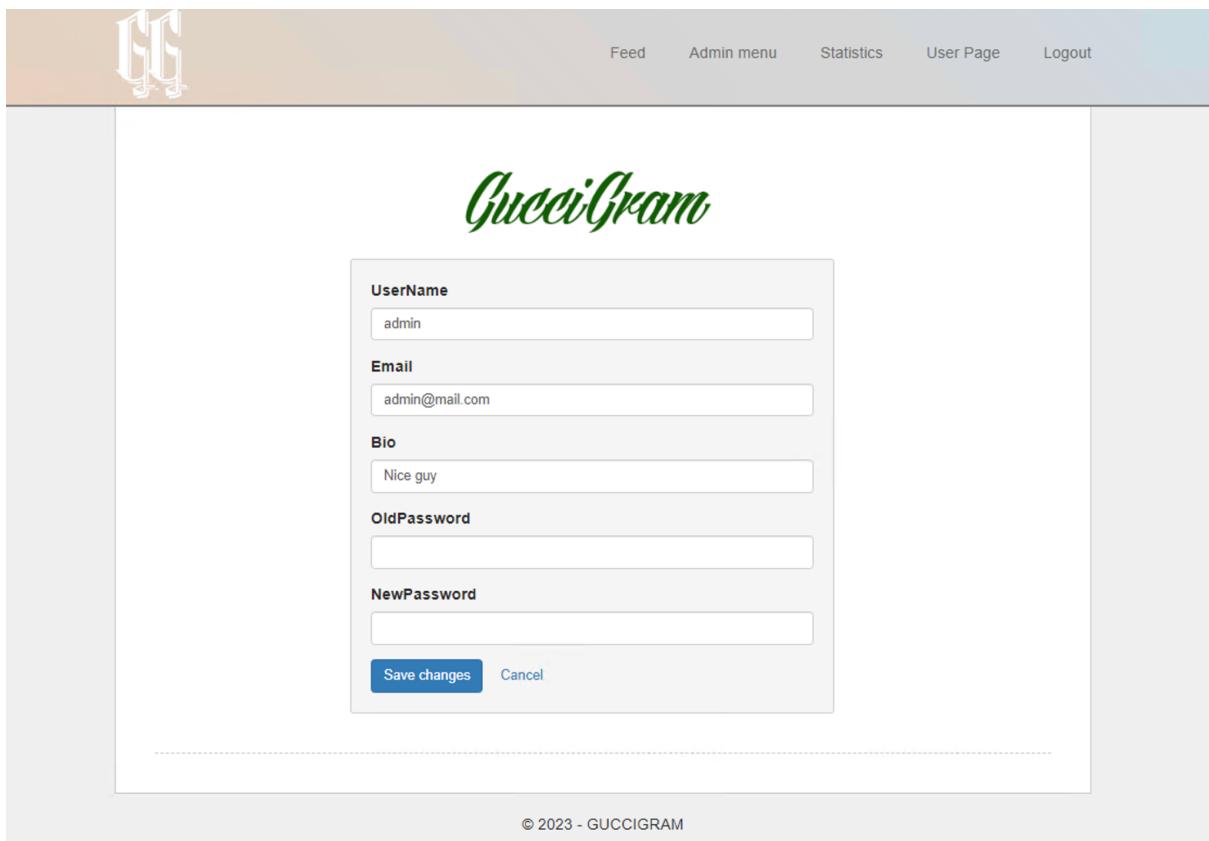
The screenshot shows the GucciGram registration interface. At the top, there is a navigation bar with a logo on the left and links for "Feed", "Login", and "Registration" on the right. The main area features the "GucciGram" logo in a stylized green font. Below the logo is a registration form. The fields include: "UserName" with "Oleh" entered; "Email" with "oleh@mail.com" entered; "Password" with "*****" entered; and "Gender" with "Gentleman" selected from a dropdown menu. At the bottom of the form are two buttons: a blue "Create" button and a white "Cancel" button. At the very bottom of the page, there is a copyright notice: "© 2023 - GUCCIGRAM".

User's personal page



The screenshot shows a user's personal page on the GucciGram platform. At the top, there is a navigation bar with links for Feed, Admin menu, Statistics, User Page, and Logout. On the left side, there is a sidebar. In the center, the word "GucciGram" is displayed in a large, stylized green font. Below it is a profile box containing the username "admin" and the bio "Nice guy". At the bottom of the profile box are two buttons: "Create Post" and "Edit Profile".

Edit profile page



The screenshot shows the edit profile page for the user "admin". The top navigation bar and sidebar are identical to the personal page. The main content area features the "GucciGram" logo at the top. Below it is a form for editing profile information. The form fields include:

- UserName:** admin
- Email:** admin@mail.com
- Bio:** Nice guy
- OldPassword:** (empty input field)
- NewPassword:** (empty input field)

At the bottom of the form are two buttons: "Save changes" and "Cancel". A copyright notice at the bottom of the page reads "© 2023 - GUCCIGRAM".

Create post page

The screenshot shows the 'Create Post' interface. At the top, there's a 'Choose File' input field with the placeholder 'No file chosen'. Below it is a 'Description' input field containing the text 'My weekends in Mexico'. At the bottom of the form are two buttons: 'Post' (in blue) and 'Cancel'.

Feed Admin menu Statistics User Page Logout

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Statistics admin page

The screenshot displays various statistics:

- Madmoiseles on GucciGram: 1
- Gentlemans on GucciGram: 3
- Posts quantity from madmoiseles: 0
- Posts quantity from gentlemans: 0
- Avarange like quantity on madmoiseles posts: 1
- Avarange like quantity on gentlemans posts: 3
- Avarange comments quantity on madmoiseles posts: 0
- Avarange comments quantity on gentlemans posts: 4

Popular search requests:

- OSTAPCOOL
- ARIANA GRANDE

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Admin menu page with role management

The screenshot shows a web application interface with a header bar and a main content area.

Header:

- Logo: A stylized "GUCCIGRAM" logo.
- Links: Feed, Admin menu, Statistics, User Page, Logout.

Main Content Area:

User Accounts

ID	Name	Email	Roles	Action
11eb0ed6-fae4-4469-ad90-19753ef340e2	OstapCool	ostapcool@dog.com	Member	<button>Set Role</button> <button>Delete</button>
4612d507-40a4-47dd-80f0-6d96879751cd	admin	admin@mail.com	Administrator	
7f407f1a-31a4-4adc-8e72-1c30cf20c2e4	moderator	moderator@mail.com	Member, Moderator	<button>Set Role</button> <button>Delete</button>
b5b7febe-3a2c-4ab5-af90-c0651942105b	Oleh	oleh@mail.com	Member	<button>Set Role</button> <button>Delete</button>

Create

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Change user role page

The screenshot shows a web application interface with a header bar and a main content area.

Header:

- Logo: A stylized "GUCCIGRAM" logo.
- Links: Feed, Admin menu, Statistics, User Page, Logout.

Main Content Area:

Set User Role

Key

Value

- Member
- Member
- Moderator

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Newly created user empty page



Feed Admin menu Statistics User Page Logout

GucciGram

Oleh

No posts yet

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Comment section. With Like button and delete button (only for privileged users)



OstapCool

0 Delete this post

REAL DRILL

01/15/2023

comment

admin
Do you have youtube channel?

06/26/2023