



Complain Management Portal



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Introduction

Presentation Overview

- The website is a platform to simplify complaint management.
- An integrated communication system enables direct communication with customer service.
- Timely and accurate responses to complaints lead to faster resolution times.
- Multiple customers can log their complaints and upvote other complaints.



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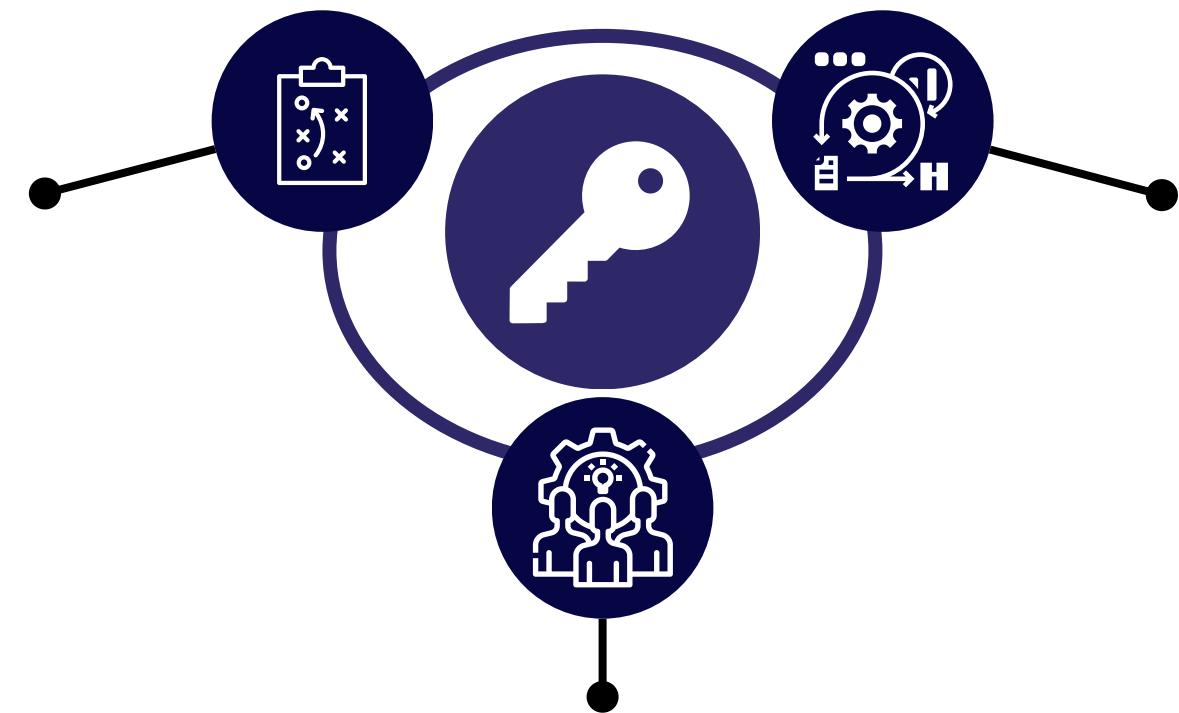
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Key Takeaways

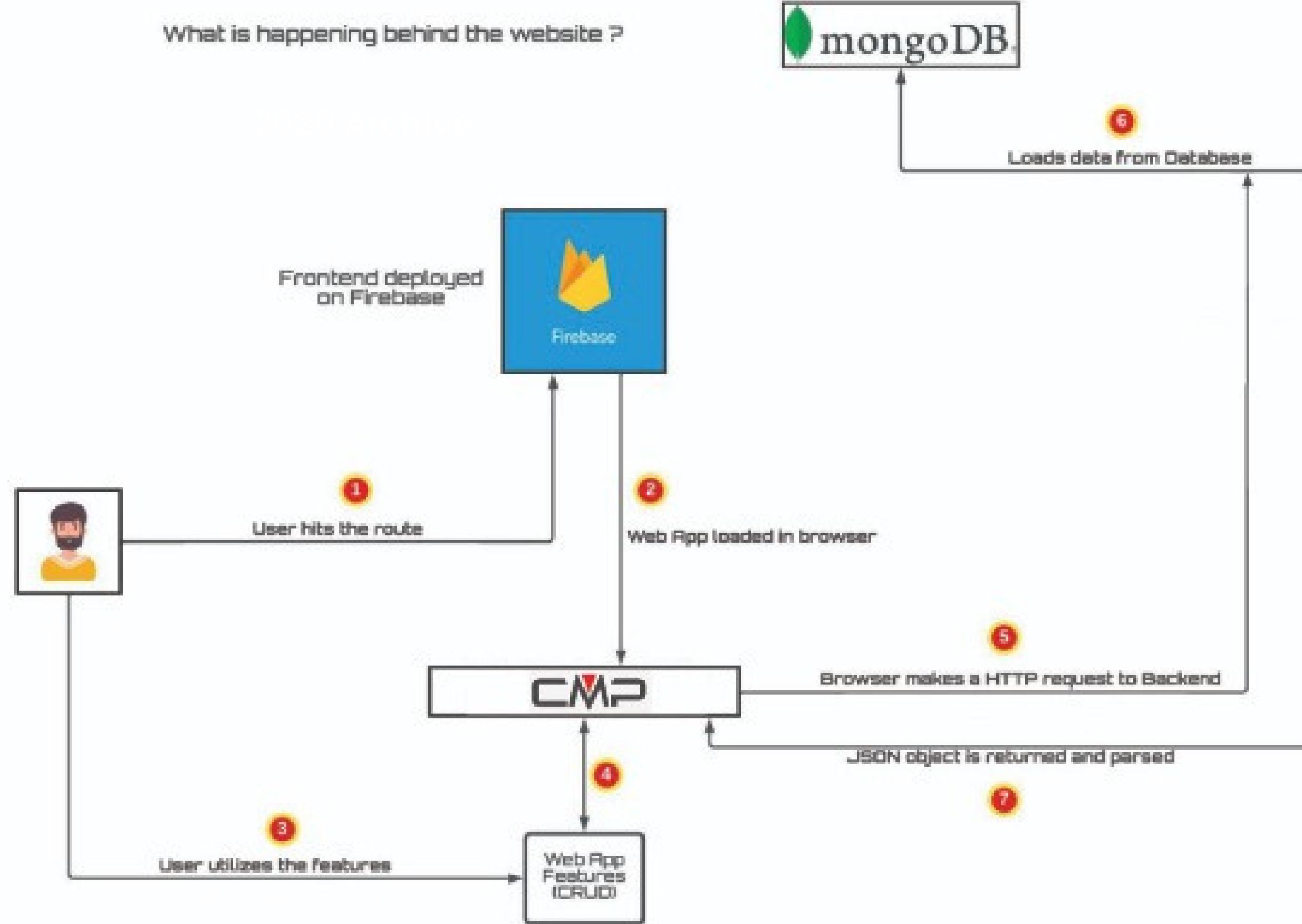
On a very basic level, complain management portal includes the management of client complains for an organization. It can also function as a feedback mechanism for an admin.



Here clients can lodge a complaint with description and image details which the admin has to resolve. Other users can sign in and then give an upvote to the complaints lodged.

We maintain different tables for users, posts, upvotes, downvotes, comments in our database.

How does the website work ?



Why is authentication required ?

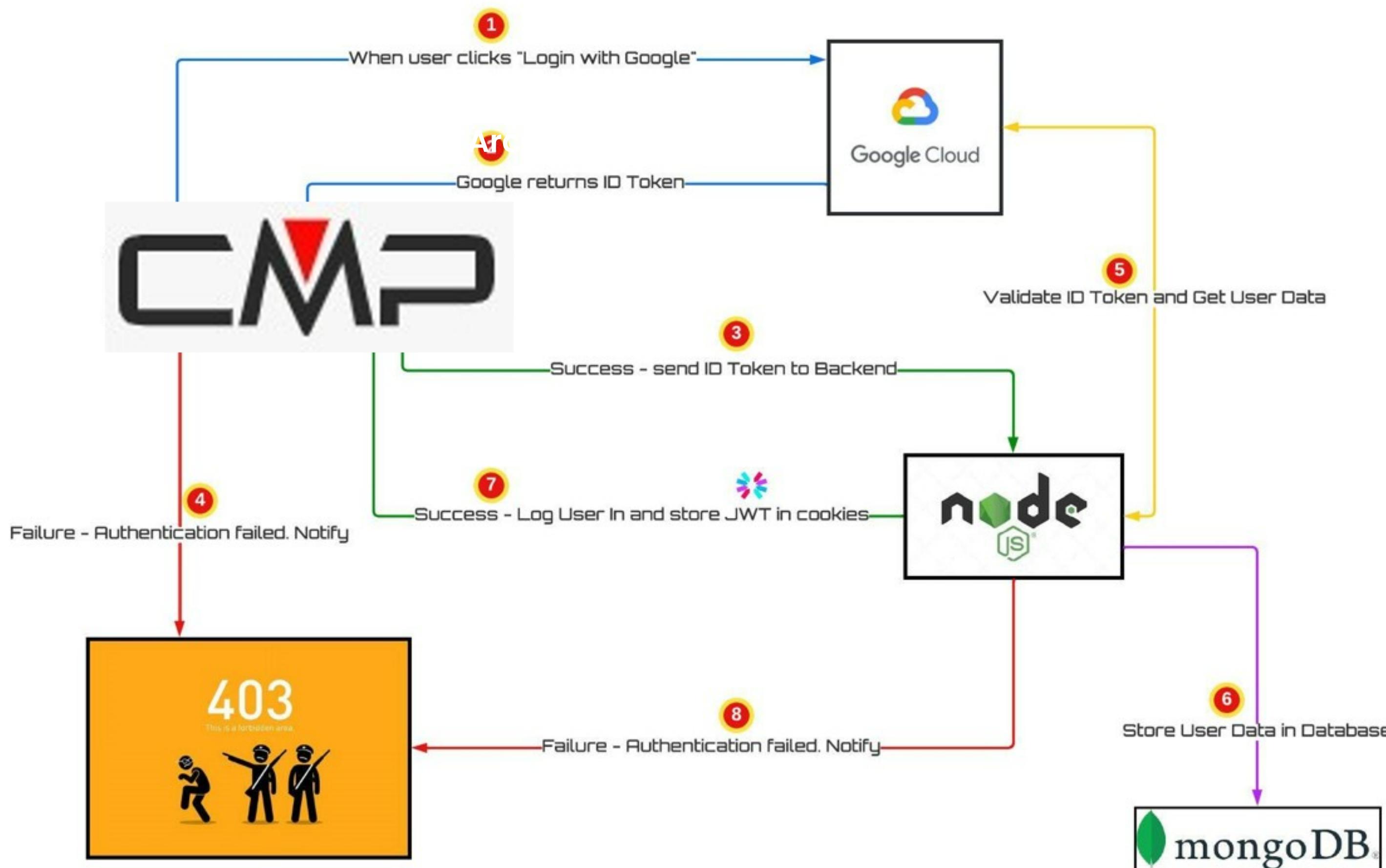


Client Authentication

Authentication is essential in websites to:

- Verify users' identities before granting access to sensitive data or resources.
- Prevent unauthorized access to sensitive data and resources.
- Protect users' sensitive information and data from malicious users.

User Authentication



Understanding Complaint Management Functionalities



Functionality	Scope (Assumed Logged In)	Operation on DB
New Complaint	Any User	Create
Delete Complaint	Complaints made by user	Delete
New Comment	Any User	Create
Delete Comment	Comments made by user	Delete
Upvote Complaint	Any User	Update
Downvote Complaint	Any User	Update
Show a Post	Any User	Read
Show all comments associated with a post	Any User	Read
Complaint Status (Fresh , Addressed , Resolved)	Change status of only those complaints made by user	Update
Filter	Any User	Selective Reading
Administrator	Change status of any fresh complaint to addressed	User Rights
Normal User	Change status of one's fresh or addressed complaint to resolved	User Rights
Login (Authentication)	User belonging to iitbbs.ac.in organization	Restriction

Screenshots of how entries are stored in DB

test.users

DOCUMENTS 5 STORAGE SIZE 20.5KB AVG. SIZE 212B INDEXES 2 TOTAL SIZE 73.7KB AVG. SIZE 36.9KB

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER { field: 'value' } ADD DATA VIEW ... FIND RESET REFRESH

Displaying documents 1 - 5 of 5 < > C REFRESH

```
_id: ObjectId("6452cff2c5a9dfa8ba0a314a")
role: "admin"
name: "AKSHAT RAMPURIA"
email: "20cs02013@iitbbs.ac.in"
photo: "https://lh3.googleusercontent.com/a/AGNmyxar_XWFngYyOkPythoNateSl9h1FF..."
__v: 0

_id: ObjectId("6452cff4c5a9dfa8ba0a314d")
role: "user"
name: "General Secretary Science & Technology Students' Gymkhana"
email: "gsecsnt.sg@iitbbs.ac.in"
photo: "https://lh3.googleusercontent.com/a/AGNmyxatv8Lb00Zglvlg_vDZ6SwOHLdfDv..."
__v: 0

_id: ObjectId("6452c9c0679b044d7825d3c4")
role: "user"
name: "AMIT KUMAR PANDIT"
email: "20cs01035@iitbbs.ac.in"
photo: "https://lh3.googleusercontent.com/a/AGNmyxaht61_pMP9oYcPiykwiGfHTLPEA..."
__v: 0
```

test.posts

DOCUMENTS 3 STORAGE SIZE 20.5KB AVG. SIZE 530B INDEXES 3 TOTAL SIZE 110.6KB AVG. SIZE 36.9KB

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER { field: 'value' } ADD DATA VIEW ... FIND RESET REFRESH

Displaying documents 1 - 3 of 3 < > C REFRESH

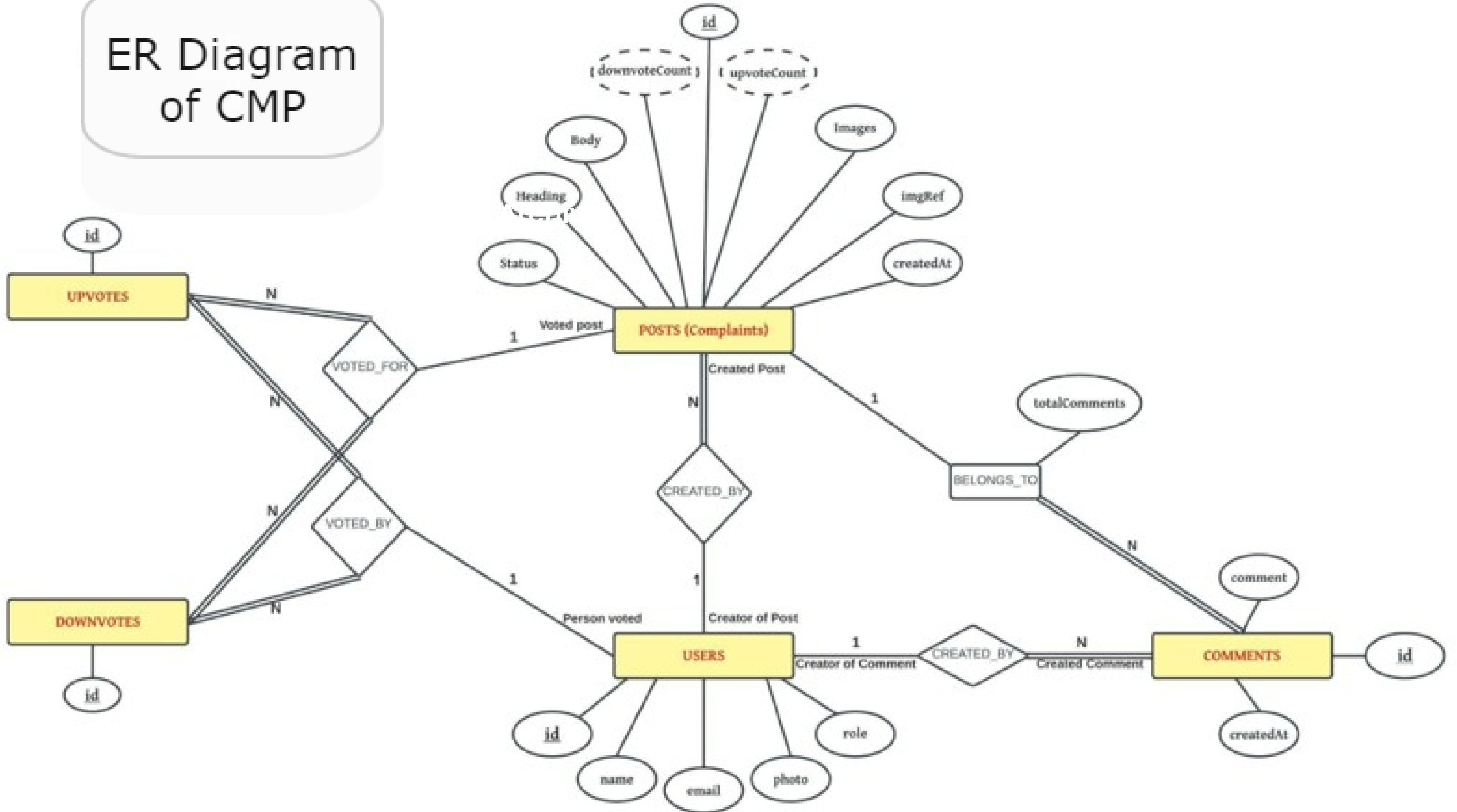
```
_id: ObjectId("6452c4c6c5a9dfa8ba0a318a")
> images: Array
> imgRef: Array
> tags: Array
> upvoters: Array
> downvoters: Array
status: 0
heading: "Internet issues pertaining in hostels"
body: "There a lot of internet issues like wifi not functioning and LAN port ..."
user: ObjectId("6452cff2c5a9dfa8ba0a314a")
createdAt: 2023-05-03T20:32:06.181+00:00
__v: 0

_id: ObjectId("6452d13a679b044d7825d404")
> images: Array
> imgRef: Array
> tags: Array
> upvoters: Array
> downvoters: Array
status: 1
heading: "Poor Quality of Mess Food"
body: "The food in mess is very bad, most of the time it's without salt and s..."
user: ObjectId("6452c9c0679b044d7825d3c4")
createdAt: 2023-05-03T21:25:14.907+00:00
__v: 0
```

Screenshots of how entries are stored in DB

Collections				
Create collection		View	Sort by	Collection Name
comments				
Storage size:	Documents:	Avg. document size:	Indexes:	Total index size:
20.48 kB	1	132.00 B	1	36.86 kB
posts				
Storage size:	Documents:	Avg. document size:	Indexes:	Total index size:
20.48 kB	3	530.00 B	3	110.59 kB
users				
Storage size:	Documents:	Avg. document size:	Indexes:	Total index size:
20.48 kB	5	212.00 B	2	73.73 kB

ER Diagram of CMP



Time for a Live Demonstration



Future Developments

- Integrate AI and machine learning algorithms to automate the complaint handling process, such as categorizing complaints, suggesting possible resolutions, and assigning them to the relevant teams.
- Implement sentiment analysis to better understand the emotional context of complaints and provide personalized responses to customers.
- Provide customers with self-service options to resolve simple complaints, such as an FAQ section, chatbots, or a knowledge base.
- Enable collaboration between departments to better address complex complaints that require input from multiple teams.
- Implement a rating and feedback system to evaluate the effectiveness of the complaint handling process and continuously improve it.



Thank You

For Your Attention

