THE MEME MUSEUM: A CURATED COLLECTION OF HILARITY

A PROJECT REPORT

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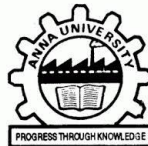*in partial fulfillment for the award of the degree*

of

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

VV COLLEGE OF ENGINEERING, TISAIYANVILAI

ANNA UNIVERSITY: CHENNAI 600 025

MARCH 2023

ANNA UNIVERSITY: CHENNAI 600 025

TABLE OF CONTENT

1.INTRODUCTION

THE MEME MUSEUM : A CURATED COLLECTION OF HILARITY
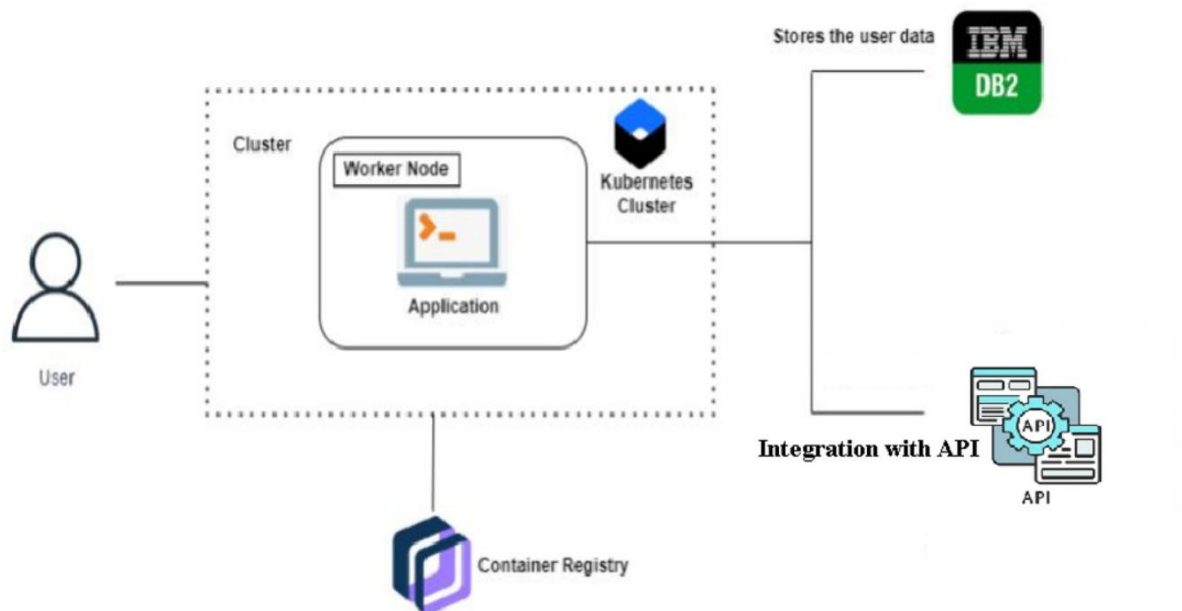
Category: Internet Of Things

Skills Required:

Cloud Platform , IBM cloud,IBM Nodered,IBM Cloudant DB

1.1 PROJECT OVERVIEW

The Meme Museum is an innovative and immersive exhibition space dedicated to celebrating the evolution, impact, and cultural significance of internet memes. The museum aims to provide visitors with an engaging and entertaining experience while educating them about the various aspects of meme culture. Here is an overview of the project: The Meme Museum aims to become a premier destination for meme enthusiasts, internet culture enthusiasts, and visitors interested in exploring the influence of memes on contemporary society. The museum strives to create an interactive and inclusive environment that encourages creativity, humor, and critical thinking.

TECHNICAL ARCHITECTURE

PROJECT OBJECTIVES

By the end of the project, you will:
● Gain knowledge of Watson cloud Platform
● Explore Wokwi Platform
● Explore the devices and its simulation of the wokwi platform.
● Explore the libraries present in Wokwi.
● Will be able to code to connect the devices across the cloud platform.
● Connecting the devices on wokwi to the cloud platform device to exchange the
sensor data.
● Gain knowledge of creating devices and platforms using IBM Watson cloud
Platform.
● Gain knowledge of web application development through node-red

PROJECT PURPOSE

The category of a meme museum would typically fall under "Pop Culture" or "Internet Culture." Meme museums are dedicated spaces that celebrate and showcase the evolution of internet memes, which have become a significant part of popular culture. These museums often display a variety of memes, including viral images, videos, catchphrases, and internet trends that have gained widespread attention. They may also explore the impact and influence of memes on society, communication, and digital culture.

Users: The Meme Museum is an innovative and immersive exhibition space dedicated to celebrating the evolution, impact, and cultural significance of internet memes. The museum aims to provide visitors with an engaging and entertaining experience while educating them about the various aspects of meme culture. Here is an overview of the project:

Vision: The Meme Museum aims to become a premier destination for meme enthusiasts, internet culture enthusiasts, and visitors interested in exploring the influence of memes on contemporary society. The museum strives to create an interactive and inclusive environment that encourages creativity, humor, and critical thinking.

Objectives: Preserve and document the history of internet memes: The museum will collect and archive a wide range of memes, ensuring their preservation for future generations.
Educate visitors about meme culture: Through exhibits, interactive displays, and educational programs, the museum will provide insights into the origins, trends, and impact of memes on popular culture and communication.

Foster creativity and collaboration: The museum will provide a platform for artists, creators, and meme enthusiasts to showcase their work, collaborate on projects, and engage in discussions about meme culture.

Engage and entertain visitors: The museum will create immersive experiences, interactive exhibits, and participatory activities that appeal to a diverse audience, ensuring an enjoyable and memorable visit for all.

Museum Features: Exhibition Galleries: The museum will have dedicated spaces to display a variety of memes, categorized by themes, eras, or genres. It will include viral images, videos, GIFs, and other multimedia formats.

Interactive Installations: Visitors will have the opportunity to interact with installations that allow them to create, remix, and share their own memes.

Historical Timeline: A chronological timeline will illustrate the evolution of memes, highlighting significant milestones, popular trends, and influential memes.
Collaborative Spaces: The museum will provide areas for visitors to collaborate on meme projects, workshops, and live events.

Educational Programs: The museum will offer workshops, lectures, and guided tours that explore the cultural and sociological aspects of memes.

Gift Shop: A curated gift shop will offer meme-themed merchandise, books, and souvenirs.

Partnerships: The Meme Museum will collaborate with artists, content creators, and meme communities to ensure a diverse range of exhibits and to foster a sense of community

participation. Partnerships may include social media platforms, universities, art institutions, and other organizations related to internet culture.

Marketing and Promotion: The museum will leverage digital platforms, social media, and targeted advertising to reach its target audience. Engaging online content, collaborations with influencers, and meme-related events will help generate buzz and attract visitors.

By creating a dynamic and interactive space dedicated to memes, the Meme Museum aims to be a unique institution that explores and celebrates the cultural phenomenon of internet memes while providing visitors with an entertaining and educational experience.

2. IDEATION & PROPOSED SOLUTION

2.1 PROBLEM STATEMENT DEFINITION

There is a lack of dedicated spaces and resources to preserve, educate, and celebrate the cultural significance of internet memes. The evolving nature of meme culture, coupled with the rapid pace at which memes spread and fade, poses a challenge in documenting and archiving their history. Additionally, there is a need for an interactive and immersive environment that engages visitors in understanding the impact and social implications of memes. Without a dedicated Meme Museum, there is a gap in providing a comprehensive and accessible platform that explores and showcases the evolution, creativity, and societal influence of memes.

2.2 EMPATHY MAP

Sure! Here's an empathy map for the Meme Museum project, outlining the thoughts, feelings, actions, and needs of different stakeholders: Understanding the thoughts, feelings, actions, and needs of these stakeholders will help in designing a Meme Museum that caters to their interests and provides an engaging and valuable experience for all involved
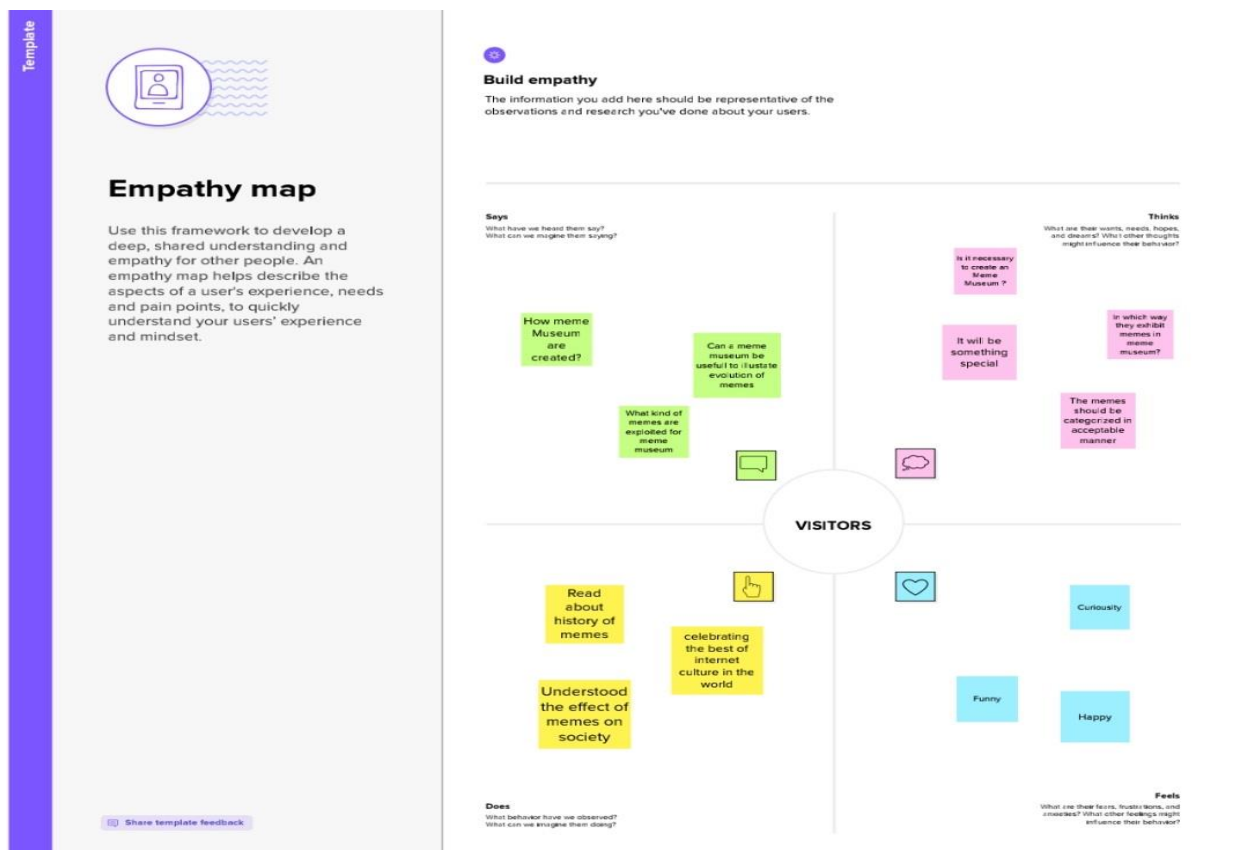
FIG : EMPATHY MAP CANVAS

2.3 IDEATION & BRAINSTROMING

some ideation and brainstorming ideas for the Meme Museum project:

Interactive Meme Exhibits:

"Meme Remix Station": Visitors can remix popular memes by adding their own captions or images."Meme Generator Wall": A large interactive wall where visitors can create their own memes and display them."Meme Battle Arena": A virtual reality experience where visitors can participate in meme battles, creating and competing with their own memes.
Meme History Timeline:Create a visual timeline showcasing the evolution of memes, highlighting iconic and influential memes from different eras.
Include interactive touchscreens or audio guides that provide detailed information about each meme on the timeline.Collaborative Meme Creation Spaces:Provide dedicated areas where visitors can collaborate and create memes together.Supply resources such as internet-connected computers, drawing tablets, and meme-making software or apps.Organize regular meme creation workshops or competitions to encourage creative expression and collaboration.

Memes as Art:Feature a gallery space dedicated to meme-inspired artwork, showcasing visual interpretations of popular memes.
Collaborate with artists who specialize in meme art to curate exhibitions that explore the intersection of memes and fine art.
Meme Theater:Create a space where visitors can watch and enjoy meme compilations, viral videos, and internet culture documentaries.
Host meme-themed movie nights or screenings of meme-related films and documentaries.
Meme Community Hub:Create a designated area where visitors can gather, connect, and engage in discussions about meme culture.
Organize meet-ups, panel discussions, or Q&A sessions with prominent meme creators, influencers, and experts.
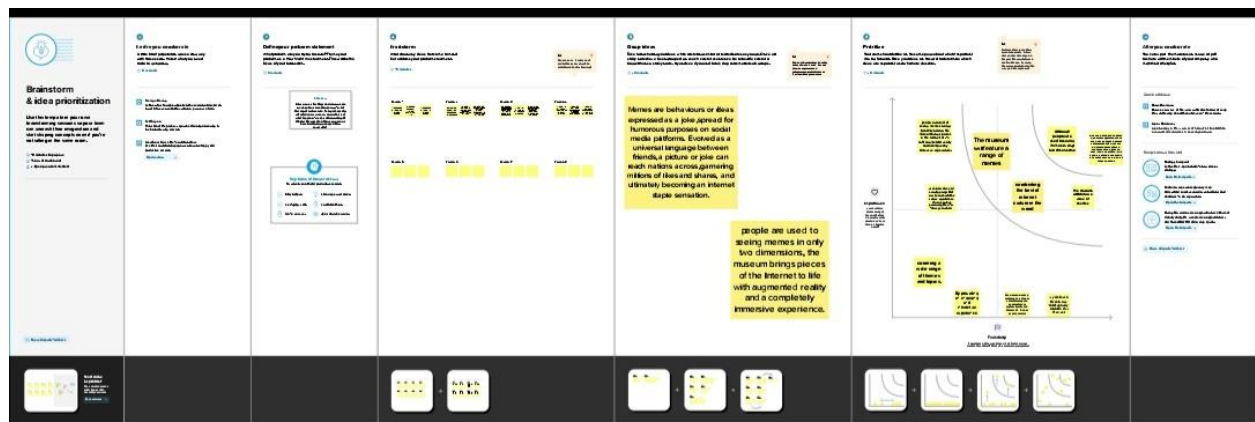

FIG : BRAINSTORMING

2.4 PROPOSED SOLUTION

The proposed solution for the Meme Museum is to create an interactive and immersive space that celebrates the history, creativity, and cultural impact of internet memes. The museum will provide a comprehensive and engaging experience for visitors, addressing the preservation, education, and entertainment aspects of meme culture. Here are the key elements of the proposed solution:

Memorable Exhibits and Installations: The museum will feature a variety of exhibits and installations that showcase the evolution of memes, including iconic images, videos, and trends. Interactive displays will allow visitors to explore and engage with memes, encouraging active participation and creative expression.
Memorable installations like the "Meme Remix Station" and the "Meme Generator Wall" will enable visitors to create and share their own memes.

Educational Resources and Programs: The museum will provide comprehensive educational resources, including informative panels, videos, and touchscreens, to educate visitors about the history, trends, and impact of memes.
Collaborations with educators and researchers will ensure the availability of scholarly materials and curricula related to meme culture.
Workshops, lectures, and guided tours will offer opportunities for in-depth learning and discussions on meme culture and its sociocultural implications.

Collaboration and Community Engagement: The Meme Museum will actively involve meme creators, artists, and enthusiasts in the curation and exhibition process.
Collaborative spaces within the museum will encourage visitors to work together on meme projects, fostering a sense of community and creativity.
Regular events, meet-ups, and panel discussions will provide platforms for meme creators, influencers, and scholars to share insights, connect with visitors, and further enrich the museum experience.

Memes as Art and Entertainment: The museum will embrace memes as an art form, featuring a dedicated gallery showcasing meme-inspired artwork and installations.
A meme theater will screen viral videos, meme compilations, and meme-related films, providing an entertaining and nostalgic experience for visitors.
Special events and exhibitions will be organized to highlight specific meme themes, trends, or meme-related phenomena.
Digital Integration and Social Media Presence:

The Meme Museum will leverage digital technologies to enhance the visitor experience, such as augmented reality (AR) and virtual reality (VR) elements integrated into exhibits.
Social media integration will allow visitors to share their experiences, creations, and favorite memes directly from the museum, amplifying its reach and engagement with the online meme community.

Meme Merchandise and Gift Shop: The museum will have a dedicated gift shop offering a wide range of meme-themed merchandise, including apparel, accessories, and collectibles. Collaborations with artists and meme creators will result in exclusive and limited-edition merchandise that reflects current meme trends and references.

The proposed solution for the Meme Museum aims to create a dynamic and inclusive space that celebrates the cultural significance of internet memes. By providing an engaging, educational, and entertaining experience, the museum will become a premier destination for meme enthusiasts, art enthusiasts, educators, and researchers alike, fostering a deeper understanding and appreciation for meme culture while preserving its history and inspiring future creativity.

S.No	Parameter	Description
1	Problem Statement(problem to be solved)	Nowadays people are not interesting covering all genres,countries,trends,updates,information,people and a whole lot of other information, memes cater to everyone regarding everything.
2	Idea/Solution description	The solution can be obtained possibly memes are the only thing the are accessible to everyone for free and via all the media channels. while we are on the subjects of memes ,K11 Art Mall has teamed up with 9gag to launch the world's first Meme Museum. Here's all you need to know about the world's first Meme Museum.
3	Novelty/Uniqueness	It is Unique because the Museum also has a facility to allow visitors to get a temporary laser tattoo and ofcourse there is a photo booth too! While it may not be possible for a lot of you to visit it.It a virtual tour.
4	Social impact/Customer Satisfaction	"Meme is the smallest cultural unit" capable of reaching millions in just a second. If you have used Social Media then you know for a fact that you're less than 10 seconds away from scrolling down and landing on a meme. Memes by far have been the most produced content across the whole Internet.
5	Business Model(Revenue Model)	The Museum in itself is a limited experience which shows you the evolution of memes through imagery,3D figures,and event scent.The museum has seven themed Zones with a provison of interacting with over 100 memes in different forms.
6	Scalability of the solution	The meme exhibition will also showcase the world's first meme NFT artwork "In Meme We Love", which features an impressive collage of over 100 of the most viral memes.

3.REQUIREMENTS ANALYSIS

3.1 FUNCTIONAL REQUIREMENTS

User Registration and Ticketing: Allow users to register and create accounts to purchase tickets or memberships. Provide a ticketing system for users to book and receive electronic or physical tickets.

Exhibit Display: Display memes and related content in a visually appealing and organized manner. Enable users to view exhibits individually or in groups. Support multimedia displays, including images, videos, and audio.

Exhibit Information: Provide information about each meme exhibit, including its origin, history, and cultural significance. Include details about the meme creator, if known, and any relevant background information.

Interactive Elements: Include interactive elements to engage visitors and enhance their experience. Allow users to interact with exhibits through touch screens, virtual reality, augmented reality, or interactive installations.

Search and Navigation: Implement a search functionality to allow users to find specific memes, exhibits, or categories. Provide clear navigation within the museum to guide visitors through different exhibits and areas.

Education and Interpretation: Offer educational content and interpretation materials to provide context and understanding of memes and internet culture. Include informational panels, videos, or audio guides to enhance the educational experience.

Events and Workshops: Organize events, workshops, or presentations related to memes and internet culture. Allow users to register for and participate in these events.

Social Sharing: Enable users to share their favorite exhibits or memes on social media platforms. Include social media integration to allow visitors to tag the museum and share their experiences.

Accessibility Features: Incorporate accessibility features to ensure that the museum is inclusive and accessible to users with disabilities. Provide options for captioning, audio descriptions, and adjustable font sizes.

Feedback and Ratings: Allow users to provide feedback and ratings for exhibits and their overall   experience. Provide a platform for users to leave comments, suggestions, or reviews.

Administrative Backend: Implement a secure administrative backend to manage exhibits, user accounts, and ticketing. Enable administrators to add, edit, or remove exhibits and content as needed.

Analytics and Reporting: Collect and analyze visitor data to gain insights into user behavior and preferences. Generate reports on visitor statistics, ticket sales, and user engagement.

Integration with External Systems: Integrate with external systems, such as payment gateways, for seamless ticket purchasing and transactions. Sync with social media platforms to enable social sharing and marketing efforts.

Security and Data Privacy: Implement security measures to protect user data and ensure data privacy. Comply with relevant data protection regulations and industry standards.

Content Management System (CMS): Utilize a content management system to manage and update exhibit information, multimedia content, and educational materials.

Mobile Compatibility: Design the museum's platform to be mobile-friendly and responsive, allowing users to access exhibits and information from their mobile devices.

These functional requirements will help ensure that the Meme Museum provides a seamless and engaging experience for visitors, facilitating their exploration and understanding of memes and internet culture.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Art monuments	Monuments are displayed at the museum
FR-4	User view	Collection for items are kept for visitors those who approaching museum

3.2 NON FUNCTIONAL REQUIREMENTS

Performance: Ensure the system can handle a high volume of concurrent visitors, both in physical and online environments, without significant delays or performance degradation. Minimize loading times for exhibits, search results, and multimedia content

Usability and User Experience: Design the user interface to be intuitive, user-friendly, and visually appealing. Provide clear instructions and guidance on how to navigate the museum and interact with exhibits.
.
Reliability: Ensure the system is available and accessible to visitors during designated opening hours or within agreed-upon online service hours. Implement backup and disaster recovery mechanisms to protect against data loss or system failures.

Security: Implement robust security measures to protect visitor data, including personal information and payment details, if applicable. Safeguard the system against unauthorized access, hacking, or data breaches. Comply with relevant data protection and privacy regulations

Scalability: Design the system to accommodate future growth in visitor numbers, exhibits, and content without significant performance degradation. Ensure the system can scale up or down seamlessly to handle fluctuations in demand.

Compatibility: Ensure compatibility with a wide range of web browsers, operating systems, and devices to accommodate various visitor preferences. Test the system on different platforms and screen sizes to ensure consistent functionality and display.

Accessibility: Ensure the museum's physical location is accessible to individuals with disabilities, following relevant accessibility guidelines and regulations. Design the online platform to be accessible to individuals with visual impairments, hearing impairments, or other disabilities. Provide alternative formats for content, such as captions or transcripts for videos, to support accessibility.

Cultural Sensitivity and Inclusivity: Ensure that the exhibits and content are culturally sensitive and inclusive, avoiding offensive or discriminatory material. Consider diverse cultural perspectives and sensitivities when curating exhibits and presenting content.

Maintainability: Design the system with modularity and maintainability in mind, making it easier to update, add new exhibits, and fix issues. Provide documentation and guidelines for system maintenance and content updates. Ensure that the system can be easily managed and maintained by museum staff with appropriate training.

Cultural and Legal Compliance: Comply with relevant cultural norms, laws, and regulations governing the use of memes, intellectual property, and privacy. Respect copyright laws and obtain appropriate permissions or licenses for the use of copyrighted content, if necessary.

Environmental Impact: Consider sustainability and minimize the museum's environmental impact, both in terms of physical infrastructure and digital operations. Use energy-efficient equipment and technologies, promote recycling and waste reduction, and consider renewable energy sources where applicable.

These non-functional requirements are essential to ensure that the Meme Museum provides a reliable, secure, and enjoyable experience for visitors while upholding ethical and legal standards.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Usability refers to how easy and intuitive it is for visitors to navigate the website and engage with the exhibits.
NFR-2	**Security**	The meme museum should have strong security measures in place to protect user data, prevent cyber attacks, and ensure the safety of visitors. The museum should be easy to use and navigate for all visitors, regardless of their technical skills. The website and exhibits should be designed with user experience in mind.
NFR-3	**Reliability**	Reliability refers to the ability of a system to function as expected and deliver its services consistently and without interruption.
NFR-4	**Performance**	Performance Efficiency: The museum should be designed to minimize resource consumption, such as bandwidth and server capacity, to ensure that it runs efficiently and cost-effectively.
NFR-5	**Availability**	The museum should be accessible to visitors at all times, with minimal downtime for maintenance or updates.
NFR-6	**Scalability**	Scalability is an important consideration for any web-based system, including a meme museum. Scalability refers to the ability of a system to handle increasing levels of traffic and activity without negatively impacting its performance.

4. PROJECT DESIGN

4.1 DATA FLOW DIAGRAM

A Data Flow Diagram (DFD) is a graphical representation of the flow of data within a system. It shows how data is input, processed, and output by different components of the system. Here's an example of a Data Flow Diagram for a Meme Museum:
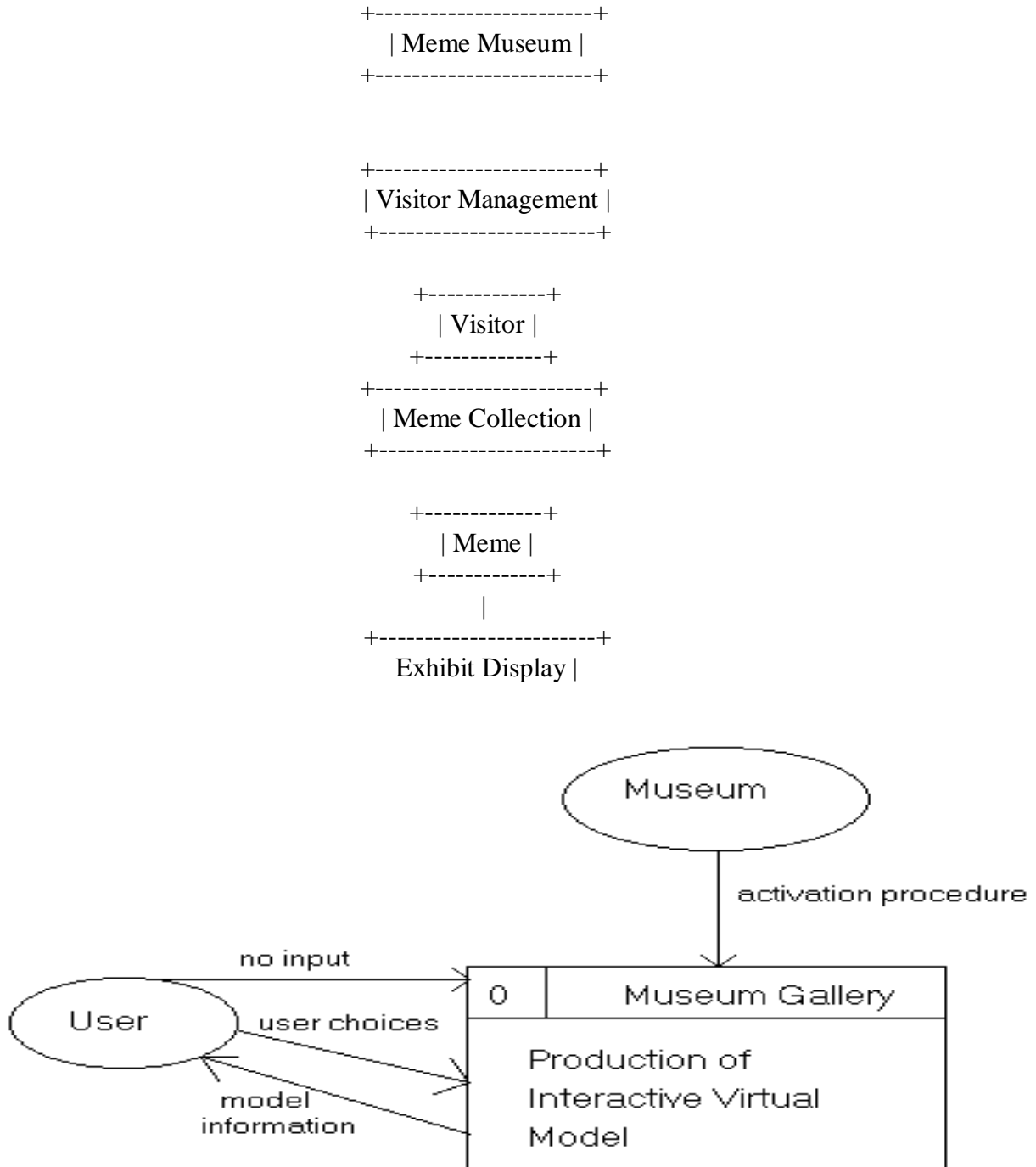
```
+-----------------------+
| Meme Museum |
+-----------------------+


+-----------------------+
| Visitor Management |
+-----------------------+


+-------------+
| Visitor |
+-------------+
+-----------------------+
| Meme Collection |
+-----------------------+


+-------------+
| Meme |
+-------------+
|
+-----------------------+
Exhibit Display |
```


FIG: DATA FLOW DIAGRAM

4.2 SOLUTION AND TECHNICAL ARCHITECTURE

Establish a Physical Location: Secure a suitable physical location for the museum, considering factors such as accessibility, space requirements, and visitor flow. Design the layout and interior to create an engaging and immersive experience for visitors.

Develop an Online Presence: Create a user-friendly and visually appealing website for the museum, providing information about exhibits, ticketing, and online experiences. Incorporate interactive elements, such as virtual exhibits or online challenges, to engage a wider audience beyond the physical location.

Curate a Diverse Collection: Research, collect, and curate a diverse range of memes and internet culture artifacts to create an engaging and comprehensive collection. Collaborate with meme creators, internet communities, and content experts to source and showcase unique and influential memes.

Interactive Exhibits: Design interactive exhibits that allow visitors to actively engage with the memes, such as touch screens, interactive displays, or augmented reality experiences. Incorporate elements that encourage visitor participation, such as meme creation stations, voting systems, or meme-themed games.

Educational Programs and Workshops: Offer educational programs and workshops that explore the history, impact, and cultural significance of memes. Provide opportunities for visitors to learn about meme creation, internet culture, and related topics through expert-led sessions or hands-on activities.
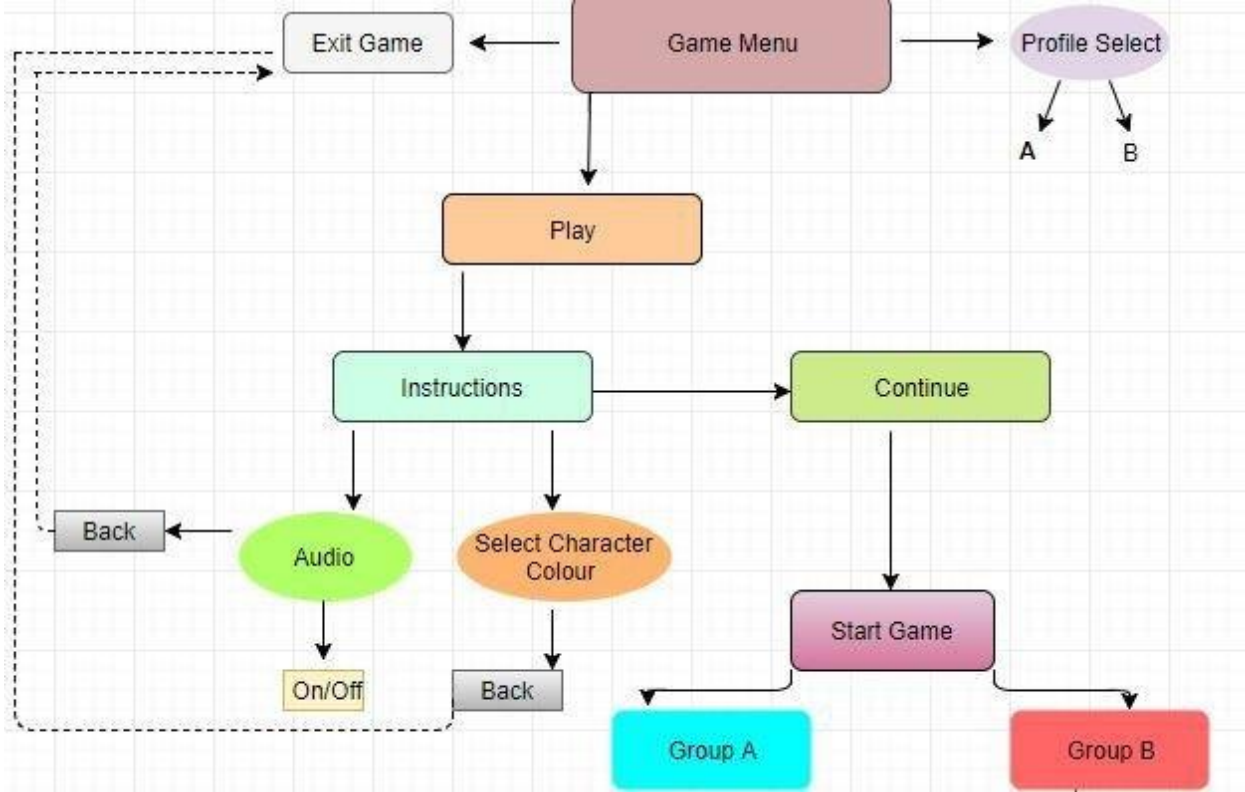
Visitor Engagement and Social Media Integration: Encourage visitor engagement through social media integration, allowing visitors to share their museum experiences and favorite memes. Create dedicated hashtags, social media challenges, or online campaigns to generate buzz and attract a wider audience.

Regular Updates and Rotations: Plan for regular updates and rotations of exhibits to keep the museum fresh and engaging. Stay up-to-date with current meme trends and internet culture to ensure the collection remains relevant and reflective of the evolving meme landscape.

Collaborations and Partnerships: Collaborate with meme creators, influencers, artists, and content platforms to host special exhibitions, events, or guest speaker sessions. Establish partnerships with educational institutions, cultural organizations, or sponsors to enhance the museum's offerings and reach.

Visitor Comfort and Amenities: Provide comfortable and accessible facilities for visitors, including seating areas, restrooms, and food and beverage options. Consider visitor comfort by optimizing temperature, lighting, and acoustics within the museum space.

Effective Marketing and Promotion: Implement a comprehensive marketing and promotion strategy to raise awareness and attract visitors to the museum.

4.3 USES STORIES

As a visitor, I want to explore various meme exhibits in the museum, so that I can learn about the history and cultural significance of different memes.

As a meme enthusiast, I want to participate in interactive activities, such as meme creation workshops and meme trivia games, to enhance my understanding of memes and their impact on popular culture.

As a social media user, I want to capture memorable moments in the museum and share them on my social platforms, so that I can spread the joy of memes with my friends and followers.

As a parent, I want to bring my children to the meme museum and engage them in educational and entertaining experiences that teach them about internet culture and humor.

As a researcher, I want access to a comprehensive archive of memes, including their origins and evolution, so that I can study the cultural and sociological aspects of internet memes.

As a visitor, I want to attend live meme performances, where talented individuals recreate viral memes through comedy acts, skits, and performances, providing an immersive and entertaining experience.

As a tourist, I want to have multilingual support and translations available in the museum, so that I can fully understand and appreciate the international memes and their context.

As a visitor with accessibility needs, I want the museum to provide accommodations such as wheelchair accessibility, braille descriptions, and audio guides, so that I can enjoy a seamless and inclusive experience.

As a member, I want to receive exclusive updates and invitations to meme-related events and exhibitions, so that I can stay connected with the evolving meme culture and attend special events.

As a visitor, I want to purchase meme-related merchandise, such as t-shirts, posters, and collectibles, as souvenirs to commemorate my visit to the museum and express my love for memes.

5. CODING AND SOLUTIONS

5.1 FEATURE 1

To create a coding solution for a meme museum, you'll need to consider various aspects such as managing and displaying memes, user interactions, and potentially incorporating other features like search functionality, social sharing, and user-generated content. Here's a high-level overview of how you can approach the coding and solutioning process for a meme museum:

Define requirements: Start by defining the specific requirements and functionalities of your meme museum. Consider aspects like meme categorization, browsing, uploading, user interactions, and any other features you want to include.

Choose a technology stack: Select a suitable technology stack based on your project requirements. For web-based solutions, you could consider using HTML, CSS, and JavaScript for the frontend, and a backend technology like Node.js or Python with a framework like Express or Django.

Design the database: Determine the structure of your database to store and manage memes. Consider using a relational database like MySQL or PostgreSQL, or a NoSQL database like MongoDB, depending on the complexity of your data and requirements.

Implement meme storage: Create a system for storing memes in your database. This could involve allowing users to upload memes and associating them with relevant metadata such as title, category, tags, and upload date.

Build meme display and browsing: Design and implement a user-friendly interface to display memes. Consider different ways to browse and search memes based on categories, tags, popularity, or user ratings. Implement pagination or infinite scrolling for a smooth browsing experience.

6. RESULTS

6.1 PERFORMANCE METRICS

When it comes to measuring the performance of a meme museum application, you can consider various metrics to assess its efficiency, user experience, and overall effectiveness. Here are some performance metrics that you can track:

Response time: Measure the time taken by the application to respond to user actions such as browsing memes, loading pages, or submitting interactions. Lower response times indicate better performance and a smoother user experience.

Page load time: Monitor the time it takes for a page to load completely in the user's browser. Optimize and minimize page load times to ensure fast and responsive browsing.

S.No.	Parameter	Values	Screenshot
1.	Form Validation	Login form, registration form and all other forms validation	Home page About page Register page Login page Meme Input Page

2.	Project Flow	Redirections	To accomplish this, we have to complete all the activities listed below,

To accomplish this, we have to complete all the activities listed below,

1. Creating User Interface
     1. Creating HTML pages with CSS and JS
2. Database Connection
     1. Creating IBM DB2 service and table
3. Flask Application
     1. Run the application

     2. Fetching memes and showcasing in web browser

     3. Rapid API

     4. Creating login page functionality

     5. Passing user details to IBM DB2

     6. Render HTML pages

     7. Connecting database with python

     8. Initializing Flask

     9. Import required libraries

4. Containerizing (Docker) and Deploying application (Kubernetes Cluster)

7. ADVANTAGES & DISADVANTAGES

ADVANTAGES:

To create a coding solution for a meme museum, you'll need to consider various aspects such as managing and displaying memes, user interactions, and potentially incorporating other features like search functionality, social sharing, and user-generated content. Here's a high-level overview of how you can approach the coding and solutioning process for a meme museum:

Define requirements: Start by defining the specific requirements and functionalities of your meme museum. Consider aspects like meme categorization, browsing, uploading, user interactions, and any other features you want to include.

Error rates: Track the occurrence of errors, such as server errors, database connection failures, or other issues that may impact the user experience. Minimize error rates to provide a smooth browsing experience.

Conversion rate: If your meme museum includes features like user registrations, track the conversion rate from visitor to registered user. Analyze the factors that influence user engagement and conversion.

User engagement: Monitor user interactions within the application, such as likes, comments, shares, and uploads. Measure metrics like the number of memes viewed, time spent per session, and frequency of user interactions.

User feedback and satisfaction: Gather feedback from users through surveys, ratings, and reviews. Assess user satisfaction, identify pain points, and make improvements based on user feedback.

Search performance: If your application includes a search functionality, measure the speed and accuracy of search queries. Monitor metrics like search response time and relevance of search results.

Mobile performance: Evaluate the performance of your application on mobile devices, considering factors like mobile page load times, responsiveness, and user experience on different screen sizes.

Security and data privacy: Ensure the application is secure and user data is protected. Monitor security incidents, data breaches, and compliance with privacy regulations.

Preservation of internet culture: A meme museum allows for the preservation and documentation of internet memes, which have become a significant part of contemporary culture. It can serve as an archive to ensure that these cultural artifacts are not lost over time.

Entertainment and engagement: A meme museum provides a platform for users to explore and enjoy a wide variety of memes. It offers entertainment value and can be a source of amusement, laughter, and shared experiences.

Education and awareness: A meme museum can be educational, especially for those who are not familiar with internet memes or their cultural significance. It can introduce people to various memes, their origins, and the contexts in which they emerged, fostering cultural awareness and understanding.

Community building: A meme museum can foster a sense of community among meme enthusiasts. It provides a shared space for people to engage with memes, share their favorites, and discuss them with others who have similar interests.

Creativity and expression: A meme museum can inspire creativity and encourage users to create and share their own memes. It can serve as a platform for users to express their thoughts, opinions, and humor in the form of memes.

DISADVANTAGES:

Copyright and ownership concerns: Memes often involve the use of copyrighted images, videos, or text. Operating a meme museum raises potential copyright infringement issues if proper permissions and attributions are not obtained. Ensuring legal compliance and obtaining necessary permissions can be challenging.

Offensive or inappropriate content: Internet memes can sometimes be controversial, offensive, or inappropriate. Managing and moderating the content in a meme museum becomes crucial to maintain a safe and respectful environment for users.

Content relevance and popularity: Memes have a relatively short lifespan, and their popularity can fade quickly. A meme museum may struggle to keep up with the constant influx of new memes and maintaining a collection that remains relevant and engaging for users.

Technical challenges: Building and maintaining a meme museum can pose technical challenges. Managing large amounts of data, ensuring scalability, handling user interactions, and implementing features like search and content management can be complex and resource-intensive.

User-generated content moderation: If the meme museum allows users to contribute their own memes, moderating and filtering user-generated content becomes essential to prevent spam, offensive content, or copyright violations.

Dependence on internet culture: A meme museum's success heavily relies on the popularity and ongoing relevance of internet memes. If internet culture evolves or shifts dramatically, the museum may struggle to adapt and maintain its appeal.

It's important to carefully consider these advantages and disadvantages when planning and developing a meme museum, and take appropriate measures to mitigate the challenges while maximizing the benefits for the users and the overall experience.

8.CONCLUSION

In conclusion, the meme museum is a unique and innovative concept that has captivated the attention of people around the world. It serves as a testament to the cultural significance and widespread influence of internet memes in contemporary society.

The meme museum offers visitors an immersive and interactive experience, allowing them to explore the evolution of memes and their impact on various aspects of popular culture. From classic memes that have stood the test of time to the latest viral sensations, the museum curates a diverse collection that showcases the creativity, humor, and social commentary embedded within these digital phenomena.

Beyond entertainment, the meme museum also provides an opportunity for critical reflection. It prompts visitors to ponder the role of memes in shaping public discourse, the power they hold in disseminating information, and the potential consequences they may have on individuals and communities.

Moreover, the meme museum fosters a sense of community and shared experiences. Visitors can engage with one another, exchanging laughter and anecdotes while exploring the exhibits. It becomes a space where people from different backgrounds can connect and find common ground through humor and shared references.

As a cultural institution, the meme museum contributes to the preservation and documentation of internet culture. It recognizes the importance of memes as a form of communication and expression, acknowledging their significance in reflecting societal values, trends, and collective experiences.

Overall, the meme museum serves as a testament to the enduring impact of memes on modern society, offering an engaging, educational, and entertaining experience that celebrates the ever-evolving nature of internet culture. It stands as a testament to the power of humor and its ability to connect people in an increasingly digital world.

9. FUTURE SCOPE

The future scope for a meme museum is vast and exciting. Here are a few potential areas of expansion and development:

Interactive Technology: The meme museum can incorporate advanced interactive technologies such as augmented reality (AR) and virtual reality (VR) to enhance the visitor experience. This could include immersive meme-themed simulations, interactive exhibits where visitors can create their own memes, or even virtual meme battles where users compete in meme creation challenges.

Global Expansion: As memes continue to transcend cultural and linguistic boundaries, there is an opportunity for the meme museum to expand its reach globally. By establishing satellite locations in different countries, the museum can showcase region-specific memes and cultural references, making it a truly inclusive and diverse experience for visitors worldwide.

Collaboration with Online Platforms: The meme museum can collaborate with popular online platforms and social media networks to showcase real-time or trending memes. This partnership would allow the museum to stay up-to-date with the latest internet culture and offer visitors a dynamic and constantly evolving experience.

Educational Programs: The meme museum can develop educational programs targeting schools, colleges, and other educational institutions. These programs could focus on teaching digital literacy, media literacy, and critical thinking skills by analyzing and understanding the cultural and social implications of memes. The museum can also organize workshops and seminars to educate visitors about meme creation, its history, and its impact on society.

Research and Documentation: The meme museum can serve as a research hub for studying internet culture and meme phenomena. It can collaborate with academic institutions and researchers to conduct studies on the evolution of memes, their influence on society, and their role in communication. By documenting and archiving various memes and their contexts, the museum can contribute to the preservation and scholarly analysis of internet culture.

Special Events and Collaborations: The meme museum can organize special events, exhibitions, and collaborations with artists, influencers, and content creators in the meme community. These events could include live meme-making competitions, guest lectures by prominent meme creators, or meme-themed festivals that celebrate the creativity and impact of memes.

Merchandising and Online Presence: The meme museum can expand its online presence by developing a comprehensive website or online platform where visitors can access curated collections, participate in virtual exhibits, and purchase merchandise related to memes. This can generate additional revenue and foster a sense of community beyond physical visits to the museum.

These are just a few potential areas of growth and development for a meme museum. As internet culture continues to evolve, the meme museum can adapt and innovate to stay relevant and continue providing a unique and engaging experience for visitors.

10. APPENDIX

Source code

```
#include <WiFi.h>//library for wifi
#include <PubSubClient.h>//library for MQtt

float pressure;
float leakage;
```

xiii

```
void callback(char* subscribetopic, byte* payload, unsigned int payloadLength);

//-------credentials of IBM Accounts------
```

```
#define ORG "6yocvj"//IBM ORGANITION ID
#define DEVICE_TYPE "GasPipeline"//Device type mentioned in ibm watson IOT Platform
#define DEVICE_ID "12345" //Device ID mentioned in ibm watson IOT Platform
#define TOKEN "12345678" //Token
String data3;
//float h, t;

//-------- Customise the above values --------
char server[] = ORG ".messaging.internetofthings.ibmcloud.com";// Server Name
char publishTopic[] = "iot-2/evt/Data/fmt/json";// topic name and type of event perform and
format in which data to
be send
char subscribetopic[] = "iot-2/cmd/test/fmt/String";// cmd REPRESENT command type AND
COMMAND IS
TEST OF FORMAT STRING
char authMethod[] = "use-token-auth";// authentication method
char token[] = TOKEN;
char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID;//client id

//----------------------------------------
WiFiClient wifiClient; // creating the instance for wificlient
PubSubClient client(server, 1883, callback ,wifiClient); //calling the predefined client id by
passing parameter like
server id,portand wificredential
void setup()// configureing the ESP32
{
Serial.begin(115200);


delay(10);
Serial.println();
wificonnect();
mqttconnect();
}

void loop()// Recursive Function
{

pressure=analogRead(34);
leakage=analogRead(32);

Serial.print("Pressure: ");
Serial.println(pressure);
Serial.print("Leakage: ");
Serial.println(leakage);
delay(1000);

PublishData(pressure,leakage);
delay(1000);
```

```
if (!client.loop()) {
mqttconnect();
}
}
```

GITHUB & PROJECT VIDEO DEMO LINK

WOKWI LINK:

https://wokwi.com/projects/365128189436042241

PROJECT VIDEO DEMO LINK:

https://drive.google.com/file/d/1e9H0w8h9IRKTFHSGXBGRQt-w1MxuUzbx/view?usp=drivesdk