Group Name: InfoGeeks (Group 1)

Group Members Information

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Project Name: Project Management System (ProMaS)

Where Efficiency Meets Innovation

Introduction:

Introducing Project Management System (ProMaS) Database - Empowering Seamless Project Governance

ProMaS presents a comprehensive suite of cutting-edge features meticulously designed to elevate project management to unparalleled levels of efficiency and effectiveness. Seamlessly integrated within a centralized database, ProMaS caters to the diverse needs of modern project management, ensuring meticulous oversight while fostering collaboration and streamlined communication. This innovative platform empowers project stakeholders with a range of capabilities, ensuring optimal resource allocation, budget control, and progress tracking.

Key Features:

1. Project Management:

Precision project management is at your fingertips with ProMaS' Project Manager. Stay well-prepared ahead of deadlines by accessing real-time project progress updates. Create and manage event and meeting reminders, complete with detailed descriptions and convenient meeting links. Delegate tasks effectively by assigning team members to specific events, enhancing coordination

and task execution. Moreover, effortlessly disseminate important notices to both users and employees, ensuring seamless communication.

2. Cost Management:

Maintain meticulous control over project finances with ProMaS' Cost Manager. Effortlessly set budget parameters and receive real-time updates on adherence. This feature empowers you to make informed decisions, fostering prudent financial management throughout your project lifecycle.

3. Individual Dashboard:

Elevate individual accountability and progress tracking through ProMaS' Individual Dashboard. Empower each team member with a comprehensive and insightful dashboard that offers a holistic view of their work progress within the project.

4. Online Shop:

Experience the convenience of an integrated online shopping platform within ProMaS. Seamlessly source project-related products through the platform, simplifying procurement processes and enabling efficient buying and selling interactions.
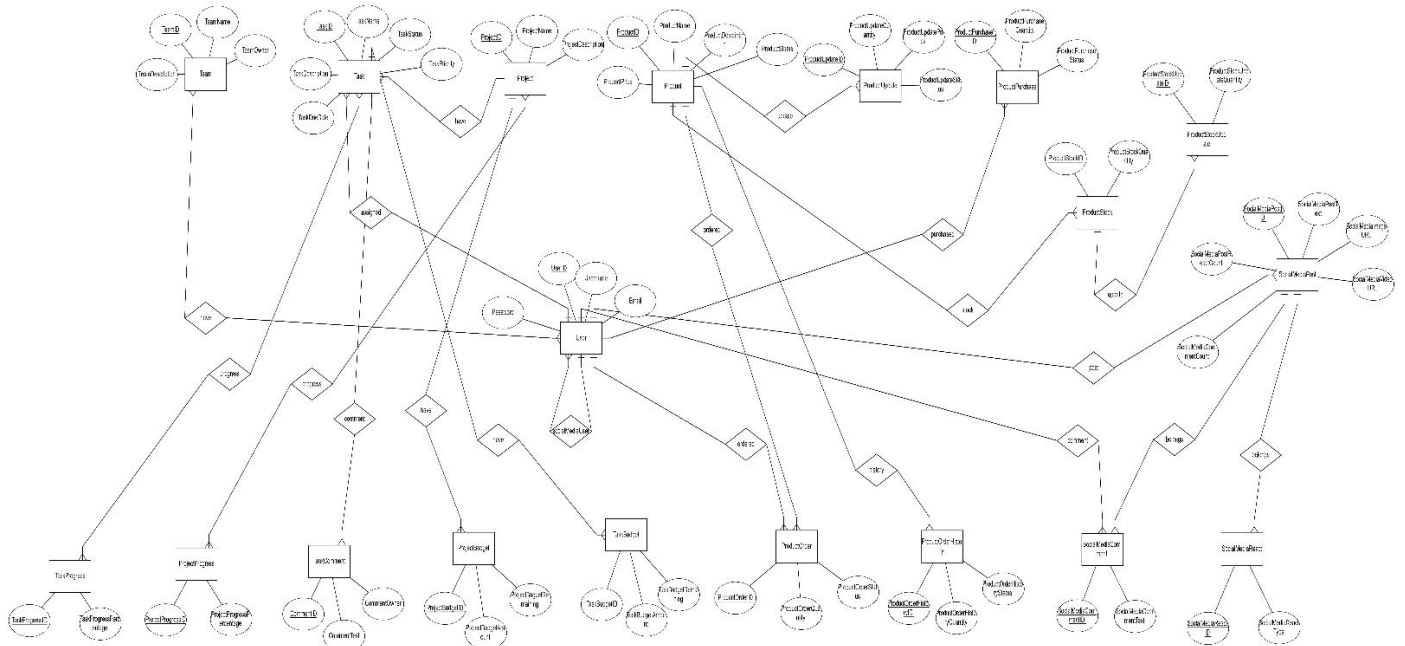
6. Customer Service:

Eliminate manual tracking of customer interactions with ProMaS' Customer Service feature. Gain quick access to comprehensive reports encompassing orders, payments, and transactions with customers, ensuring a holistic and hassle-free customer management experience.
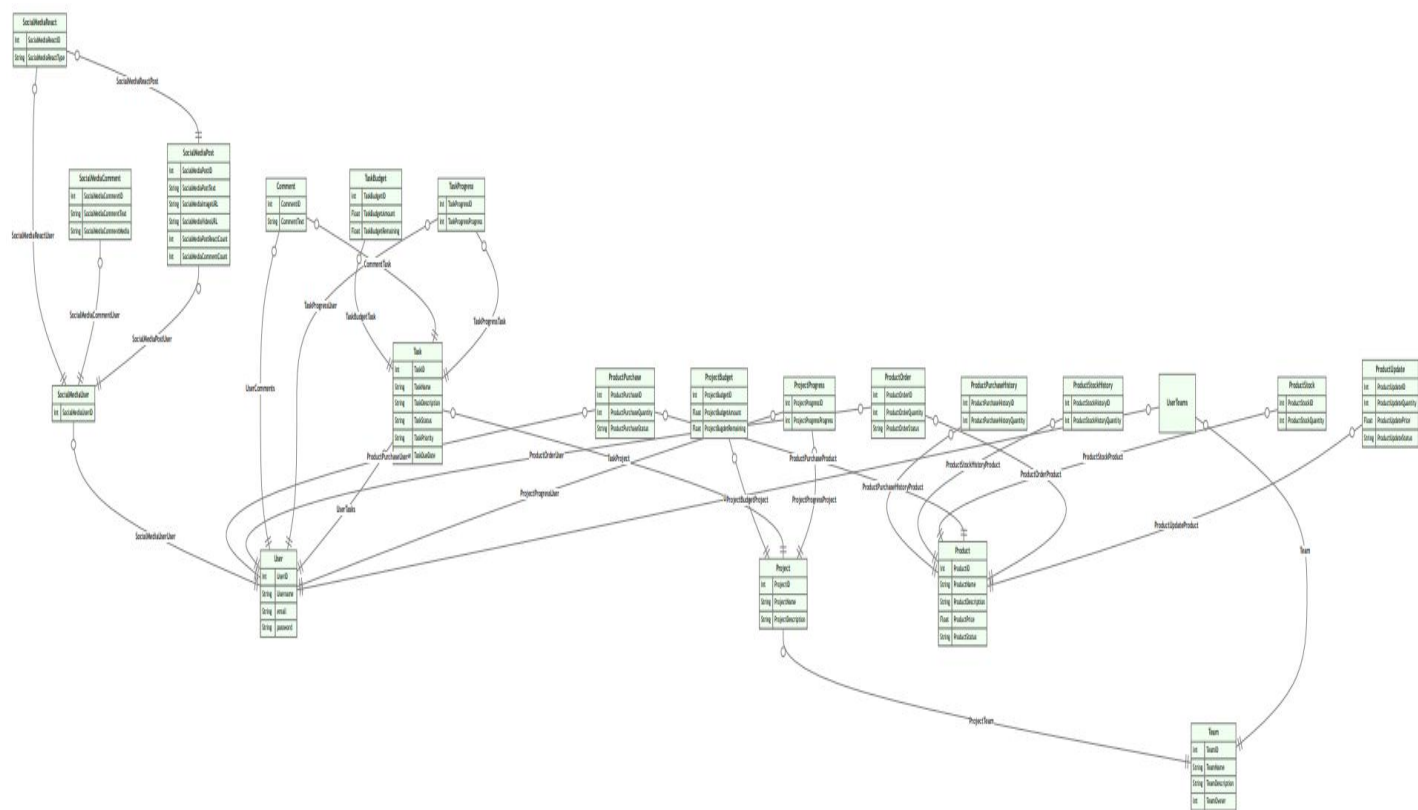
7. Social Media:

Engage in meaningful networking and collaboration with ProMaS' proprietary social media platform. Combining elements of popular social platforms like Facebook and LinkedIn, this feature fosters seamless connectivity and knowledge sharing within the ProMaS ecosystem.

In conclusion, Project Management System (ProMaS) Database redefines project management by seamlessly integrating advanced functionalities, fostering collaboration, and enabling strategic decision-making. Experience the future of project governance with ProMaS - where efficiency meets innovation.

ERD

Schema

Queries:

1. User Login Validation:

```
SELECT UserID, Username
FROM User
WHERE Username = 'faiyaz' AND password = 'faiyaz1234';
```

2. User-related Queries:

(i) Retrieve user's teams:

```
SELECT User.Username, Team.TeamName
FROM User
JOIN UserTeams ON User.UserID = UserTeams.UserID
JOIN Team ON UserTeams.TeamID = Team.TeamID;
```

(ii) Retrieve teams where a user is an owner:

```
SELECT User.Username, Team.TeamName
FROM User
JOIN Team ON User.UserID = Team.TeamOwner;
```

3. Team-related Queries:

(i) Retrieve team members:

```
SELECT Team.TeamName, User.Username
FROM Team
JOIN UserTeams ON Team.TeamID = UserTeams.TeamID
JOIN User ON UserTeams.UserID = User.UserID;
```

(ii) Retrieve projects within a team:

```
SELECT Team.TeamName, Project.ProjectName
FROM Team
JOIN Project ON Team.TeamID = Project.ProjectOwner;
```

4. Project-related Queries:

(i) Retrieve tasks within a project:

SELECT Project.ProjectName, Task.TaskName

FROM Project

JOIN Task ON Project.ProjectID = Task.TaskProject;

(ii) Retrieve project budget and remaining amount:

SELECT Project.ProjectName, ProjectBudget.ProjectBudgetAmount, ProjectBudget.ProjectBudgetRemaining

FROM Project

JOIN ProjectBudget ON Project.ProjectID = ProjectBudget.ProjectBudgetProjectID;

(iii) Calculate and update project progress

INSERT INTO TaskProgress (TaskProgressTaskID, TaskProgressPercentage)

VALUES (taskID, taskPercentage)

ON DUPLICATE KEY UPDATE TaskProgressPercentage = taskPercentage;

UPDATE ProjectProgress pp

JOIN (

  SELECT p.ProjectID, SUM(tp.TaskProgressPercentage) AS totalTaskProgress

  FROM Project p

  JOIN Task t ON p.ProjectID = t.TaskProject

  JOIN TaskProgress tp ON t.TaskID = tp.TaskProgressTaskID

  GROUP BY p.ProjectID

) AS taskProgresses ON pp.ProjectProgressProjectID = taskProgresses.ProjectID

SET pp.ProjectProgressPercentage = taskProgresses.totalTaskProgress;

5. Task-related Queries:

(i) Retrieve all tasks:

SELECT * FROM Task;

(ii) Retrieve task budget and remaining amount:

SELECT Task.TaskName, TaskBudget.TaskBudgetAmount, TaskBudget.TaskBudgetRemaining

FROM Task

JOIN TaskBudget ON Task.TaskID = TaskBudget.TaskBudgetTaskID;

(iii) Retrieve task comments:

SELECT Task.TaskName, Comment.CommentText

FROM Task

JOIN Comment ON Task.TaskID = Comment.CommentTask;

(iv) Update and get task progress

INSERT INTO TaskProgress (TaskProgressTaskID, TaskProgressPercentage)

VALUES (taskID, taskPercentage)

ON DUPLICATE KEY UPDATE TaskProgressPercentage = taskPercentage;

SELECT TaskProgressPercentage

FROM TaskProgress

WHERE TaskProgressTaskID = taskID;

6. Product-related Queries:

(i) Retrieve all products:

SELECT * FROM Product;

(ii) Retrieve product updates:

SELECT Product.ProductName, ProductUpdate.ProductUpdateQuantity, ProductUpdate.ProductUpdatePrice

FROM Product

JOIN ProductUpdate ON Product.ProductID = ProductUpdate.ProductUpdateProductID;

(iii) Retrieve product orders:

SELECT User.Username, Product.ProductName, ProductOrder.ProductOrderQuantity

FROM ProductOrder

JOIN User ON ProductOrder.ProductOrderUserID = User.UserID

JOIN Product ON ProductOrder.ProductOrderProductID = Product.ProductID;

7. Social Media-related Queries:

(i) Retrieve all social media posts:

SELECT * FROM SocialMediaPost;

(ii) Retrieve post comments and reactions:

SELECT SocialMediaPost.SocialMediaPostText, SocialMediaComment.SocialMediaCommentText, SocialMediaReact.SocialMediaReactType

FROM SocialMediaPost

LEFT JOIN SocialMediaComment ON SocialMediaPost.SocialMediaPostID = SocialMediaComment.SocialMediaCommentPostID

LEFT JOIN SocialMediaReact ON SocialMediaPost.SocialMediaPostID = SocialMediaReact.SocialMediaReactPostID;

(iii) Retrieve users who reacted to a post:

SELECT SocialMediaPost.SocialMediaPostText, User.Username, SocialMediaReact.SocialMediaReactType

FROM SocialMediaPost

JOIN SocialMediaReact ON SocialMediaPost.SocialMediaPostID = SocialMediaReact.SocialMediaReactPostID

JOIN User ON SocialMediaReact.SocialMediaReactUserID = User.UserID;