Bubble

Collaboration made easy.

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Project Proposal

[Work in progress]
Figma Prototype link: HERE
Figma Canvas link: HERE

Introduction

This proposal presents the development of "Bubble," a user-friendly project management software designed to streamline communication, task allocation, and visual progress tracking within teams; for institutions, organizations, and people alike.

Problem

Managing timelines and dynamic groups often involves coordinating numerous tasks across diverse teams and departments. Traditional methods like emails can become cumbersome and inefficient, leading to communication gaps, lack of accountability, missed deadlines, and decreased team productivity.

Solution

Bubble addresses these challenges by providing a centralized platform with the following functionalities:

Team and User Management:

Create organizations known as Bubbles, define roles, assign roles or users with specific tasks, and invite users to collaborate and become a part of the team.

Task Management:

Assign tasks to individuals or teams, set deadlines, track progress, and tell teams to prioritize critical tasks. Leave additional notes as needed.

Communication Tools:

Facilitate communication through team-based and/or individual messaging. Stay on track with task thread messaging [group chats] per task, as necessary. Message anyone on the platform or in your Bubble. Search and view other users' profiles.

Visibility and Reporting:

Gain insights into project progress with task time-lines, login activity, and message read receipts. Visualize overall trends of task completion, or on an individual/team-based level.

Image Sharing:

Securely upload and share project-related images with people on Bubble or in your organization.

Target Users

Bubble caters to a broad user base, including:

Small and medium-sized businesses.

Project management and service based teams.

Software development companies.

Education essentials (libraries, teachers, students)

High Level User Requirement:

Owners/Leaders can [within their own organization/Bubble]:

- **Manage the Bubble:**

    create, update, and delete organization info or profile.
- **Manage users and teams:**

    create roles, assign roles to users, update role names, delete roles, invite users, update user information, remove users.
- **Manage tasks:**

    assign tasks to users or roles, set deadlines, mark tasks as important, view task completion status, and view a timeline of all outstanding tasks. Visualize overall trends of task completion, or on an individual/team-based level. Identify outlier team performance.

- **Manage communication:**

   send messages to roles, users in the Bubble, or anyone on the platform.
- **Monitor activity:**

   view user login logs, and moderator logs

Moderators can:

- **Manage the team:**

   create, update, or delete roles.
- **Manage users:**

   invite, update, or delete members from the Bubble. Update public

   usernames , info, and profile pictures.
- **Manage tasks:**

   create, update, and delete tasks.
- **Monitor activity:**

   view user login logs.

Employees/Users can:

- **View tasks:**

   see tasks assigned to them individually or to their roles, and view

   completed tasks.
- **Manage their profile:**

   create, update, and delete their profile information.
- **Communicate:**

   send messages to roles, users in their Bubble, or search for users on the

   platform.
- **View Bubble information:**

   see users in their Bubble, see all roles available, and see which users are

   assigned to each role.

Technology Stack

Backend:

PHP with a MySQL database.

Frontend:

Javascript, HTML, CSS, and Bootstrap.

Hosting:

Heroku for a scalable and reliable online deployment with ClearDB for database management.

UI/UX Design:

Figma for prototyping.

Database

Database Type: Relational

Users

userID (INT PRIMARY KEY)

name VARCHAR(255)

username VARCHAR(255)

email VARCHAR(255)

password VARCHAR(255) [Will be hashed]

Salt BLOB [salt for password]

Avie VARCHAR(255)

userRoleID INT (Foreign Key)

joinDate DATETIME

Roles

roleID (INT PRIMARY KEY)

roleName VARCHAR(255)

description VARCHAR(255)

userID INT (Foreign Key)

[Subject to change to "Projects" instead of "Tasks"]

Tasks

taskID (INT PRIMARY KEY)

taskName VARCHAR(255)

taskDesc TEXT

taskDueDate DATETIME

taskUserID INT (Foreign Key)

taskRoleID INT (Foreign Key)

isImportant BOOLEAN/BIT

isComplete BOOLEAN/BIT

Messages

messageID (INT PRIMARY KEY)

senderID INT (Foreign Key)

receiverID INT (Foreign Key)

messageContent TEXT

messageTimeSent DATETIME

messageType VARCHAR(255) (individual or role)

messageImage VARCHAR(255)

ActivityLog

logID (INT PRIMARY KEY)

logUserID INT (Foreign Key)

logTimeStamp DATETIME

logActionDone VARCHAR(255)

logIsModerator BOOLEAN/BIT

logModID INT (Foreign Key)

Relationships:

One-to-Many:

Users --> ActivityLog (one user can have many logs)

Many-to-One (Optional):

Tasks --> Users (many tasks can apply to one user)

Tasks --> Roles (many tasks can apply to one role)

Non-Technical Approach

Intuitive Interface:

Bubble prioritizes ease of use with a clean and intuitive design.

Collaboration Features:

Role-based communication, task commenting, and image sharing to foster seamless collaboration.

Customization:

Bubble offers customizable Bubbles and teams to suit a specific group or organization's needs.

Scalability:

Your Bubble can scale to accommodate growing teams and businesses.

Bubble

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