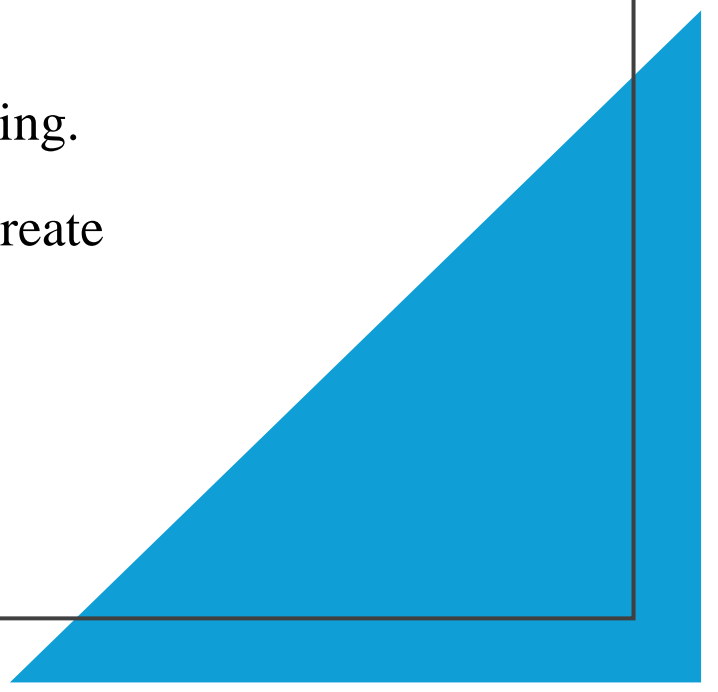# Pickify

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Abstract

- **Pickify** is a web-based collaborative platform for real-time polling, task assignment, and decision analytics.

- Users create polls with multiple choice, word cloud or Q&A, share via unique links, and vote in real-time.

- Instant result viewing and live updates foster interactive decision-making.

- User authentication ensures privacy; only registered participants can create polls.

- With an intuitive interface, Pickify is ideal for team projects, social gatherings, and organizational decisions.

Requirements and User Stories

- **Poll Creation & Voting:**

  - *User Story:* "As a user, I want to create and share polls for group decision-making."

  - *User Story:* "As a participant, I want to vote on polls in real-time to share input."

- **Feedback & Comments**

  - *User Story:* "As a poll participant, I want to leave comments or suggestions on polls to contribute my ideas."

  - *User Story:* "As a poll creator, I want to moderate and highlight comments to keep discussions focused."

  - *User Story:* "As a participant, I want to upvote or like comments to support popular suggestions."

- **Analytics & Reporting:**

  - *User Story:* "As a team leader, I want insights into poll participation to analyze trends."

  - *User Story:* "As a user, I want visual data representations to interpret results easily."

Modules

Authentication Module (Manages user registration, login, and session handling.**)**

Poll Creation & Management Module (Enables poll creation, customization, and deletion**.)**

Voting & Real-Time Updates Module (Allows live voting and updates results instantly**.)**

Comment and Feedback Module (Allow participants to leave comments or feedbacks on polls**)**

Analytics & Reporting Module (Generates poll reports and visual data insights.**)**

Module Details

- **Authentication Module**

  register_user, login_user, logout_user

- **Poll Creation Module**

  create_poll, edit_poll, delete_poll, get_poll_details
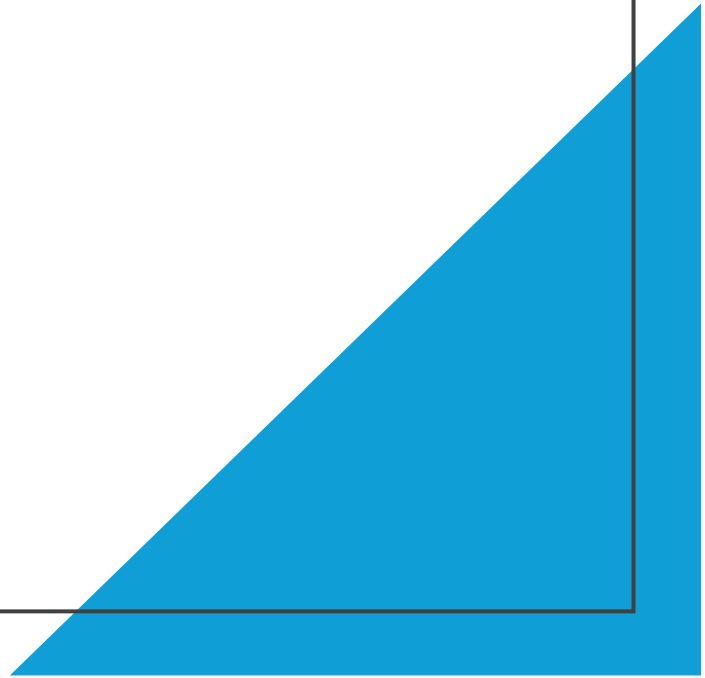
- **Voting Module**

  cast_vote, get_real_time_results, enable_anonymous_voting, close_poll

- **Comments and Feedbacks Module**

  add_comment, view_comment, like_comment, moderate_comments

- **Analytics Module**

  generate_poll_report, export_results, generate_visuals, track_participation

Real-Time Updates in Pickify

How will we provide real time poll updates with instant feedback and notifications to enhance user interactivity and engagement in polling and task management?

WebSocket: Enables two-way, live communication between server and clients for instant vote counts, task updates, and analytics.

Firebase Cloud Messaging (FCM): Sends push notifications to participants about new polls, task reminders, and deadlines, even if they are not actively using the app.

- Instant Vote Feedback: Users can view live poll results as they update in real time.

- Enhanced Engagement: Notifications keep users informed and engaged, even when they aren't on the app.

How WebSockets Enable Real-Time Functionality

WebSocket Integration in Modules:

Voting Module:

- cast_vote: When a participant votes, the server pushes updated results to all clients with active connections.

- get_real_time_results: Retrieves live voting data, updating vote counts in the user interface instantly.

- close_poll: Broadcasts to all users that the poll is closed, preventing further voting.

Real-Time Flow:

- Step 1: User action (vote cast or task update) triggers a WebSocket event.

- Step 2: Server broadcasts updates to all connected clients.

- Step 3: Clients receive and display live changes instantly, ensuring a dynamic user experience.

Firebase Cloud Messaging for Notifications

How Firebase Cloud Messaging Works in Pickify:

- User Permissions: When a user logs in, the app requests permission to send notifications.

- Notification Triggers:
  - New Polls: When a poll is created, FCM notifies participants to join and vote.
  - Task Reminders: Assigned tasks trigger reminders before due dates.
  - Poll Closures: Notify users when a poll is about to close to encourage final voting.

- Incorporation with Modules:
  - Poll Creation Module:
    - When a poll is created, FCM sends a notification to all invited participants with a link to the poll.

- Impact of FCM:
  - Increased Engagement: Keeps users informed, ensuring they don't miss important polls or deadlines.
  - Cross-Device Compatibility: Notifications reach users on both mobile and desktop browsers, enhancing accessibility and responsiveness.

Design Pattern

Our design fits the **Observer Pattern** because our design creates a one-to-many relationship where observers are automatically notified when a change occurs in a subject object.

WebSockets for Real-Time Updates:

- The server acts as the "subject", and connected clients are the "observers".

- When a user action, like voting or updating a task, occurs, the server pushes updates to all subscribed clients (observers) instantly via WebSocket connections.

- This allows each client to be notified in real time of changes in the poll or task status, matching the one-to-many nature of the Observer Pattern.

Firebase Cloud Messaging for Notifications:

- FCM also acts as an Observer Pattern implementation by allowing the server to notify subscribed clients (observers) of specific events, like poll creation, task assignments, or reminders.

- Notifications are sent to all clients (observers) subscribed to those particular notifications, following the Observer Pattern's structure.

This pattern ensures that all clients receive updates automatically and consistently, making it ideal for scenarios where:

- Data updates need to be immediately reflected across all connected clients.

- Users need to stay informed of changes without manually refreshing or reloading.

Landing Page

Contact Us   **About Us**   **Sign Up**   **Login**

Welcome to Pickify!

Collaborative Decisions Made Simple. Join a community that makes decision-making a breeze! With Pickify, you can create polls, vote in real time, assign tasks, and track group preferences. All in one interactive platform. Whether you're planning an event, working with a team, or just getting friends' opinions, Pickify gives you the tools to engage and decide together. Sign up today and start making smarter, faster decisions with your team.

Trying to Join a Poll?   **Join Here**

Authentication

Sign Up

First Name: Please Enter First Name

Last Name: Please Enter Username

Email: Please Enter Email

Password: Please Enter Password

☐ I'm not a robot

Sign Up

Login

Username: Please Enter Username

Password: Please Enter Password

☐ Remember Me

Login

Forgot Your Password

Update Password

Enter Email: Please Enter Email

Enter Password: Please Enter Username

Confirm Password: Please Enter Password

Update

Go to Login

Poll Creation Page

Pickify

CHOICE AN ACTIVITY TO GET STARTED

Multiple Choice

How many multiple-choice questions have you answered in your life?

A   More than you can shake a No. 2 pencil at

B   So many that you dream about filling in bubbles

C   Too many to count, but you're pretty sure the answer is D

D   All the above

Create

Word Cloud Activity

Create

Q&A Activity

Q&A

shutterstock.com · 2137461433

Create

Pickify

Activity Title:

Add People:

Set Timer:

Save

Update

Instructions Page

Pickify

Response at Pickify.com/username

Polling Response Goes Here

POLL
What is your favorite color?

○ Red		**50%**
◉ Green		**50%**
○ Blue		**0%**
○ Other		**0%**

Submit

Results gathered from 2 respondents.

Instructions | **Responses**

Real Time Response Page

Pickify

Analytics and Reporting   **Profile** **Logout**

Response at Pickify.com/username

Live Responses goes here

View Comments and feebacks

Instructions | **Responses**

Comment and Feedback

Analytics and Reporting

Comments

Username

Comments goes here
♥ 👍
Reply

-------- View Replies ✓

Nichole

Great Poll
♥ 👍
Reply

-------- View Replies ✓

Add Comments

Go to Poll   Send

Total Number of Votes: 120

Engagement Rate: 75%

Top Choices

Response A: 80

Response B: 20

Response C: 15

Response D: 5

50
40
30
20
10

Go to Home   Export Analytics

THANK YOU!