

BANNARI AMMAN INSTITUTE OF TECHNOLOGY





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Project ID: 24

Project title: Student Satisfaction Survey

Technical Components

Component	Tech Stack
Backend	Spring Boot
Frontend	React JS
Database	MySQL
API	RESTful services

PROBLEM STATEMENT:

The current educational system lacks an efficient and customizable method for gathering and analyzing student feedback, leading to potential gaps in understanding student satisfaction and needs.

There is a need for a comprehensive Student Satisfaction Survey system that allows administrators to create tailored surveys, distribute them to students, and efficiently collect and analyze responses.

This system must provide administrators with the tools to generate insightful graphs and reports based on the collected data, empowering them to make informed decisions and improvements in educational environments.

SCOPE OF THE PROJECT:

A web-based Student Satisfaction Survey system allowing administrators to create customized surveys, distribute them to students, securely collect responses, generate graphical reports for analysis, and ensure scalability and ongoing support for efficient operation.

SYSTEM OVERVIEW:

1. Admin:

The Admin Panel allows administrators to create tailored surveys, distribute them efficiently, and analyze responses. Admins can customize survey questions, distribute surveys through the platform and analyze data using advanced NLP algorithms. This empowers admins to make informed decisions and drive improvements based on actionable insights derived from survey responses.

2. Student:

Students receive notifications when new surveys are available, allowing them to participate conveniently. Within the dashboard, students can securely submit their responses and optionally provide additional comments. They can also view their past survey submissions and track their engagement over time. This transparency promotes student involvement in shaping their educational experience and fosters a sense of ownership in the feedback process.

FEATURES:

1. Customizable Survey Creation for Admin:

Admins can easily create custom survey questions tailored to their specific requirements. Features include options for various question types (multiple choice, open-ended, rating scales) and customization of survey themes and branding.

2. Survey Distribution through Platform:

Admins can distribute surveys to students efficiently through the platform.

3. Distribution Integration with Student Dashboard:

Survey distribution notifications are seamlessly integrated into students' dashboards, ensuring timely access to surveys. Students receive clear notifications indicating new surveys available for completion.

4. Student Survey Interaction:

Students have the flexibility to take or reject surveys based on their preferences and availability. Clear prompts and options are provided for students to either proceed with survey completion or optout.

5. Secure Storage of Survey Responses:

Upon submission, student responses are securely stored in the database, ensuring data integrity and confidentiality.

6. Data Analysis and Graphical Representation:

Utilizing the collected data, graphical representations such as charts and graphs are generated on the admin survey report page. These visualizations provide valuable insights into student feedback trends and facilitate informed decision-making for administrators.

SPECIAL FEATURE:

Identification of Important Feedback using NLP:

- ➤ Leveraging Natural Language Processing (NLP) techniques, the system automatically analyzes survey responses to identify significant feedback.
- > NLP algorithms parse through responses to detect keywords, sentiment, and context indicative of important insights or concerns.
- > Identified important feedback is pinned and highlighted within the admin interface for easy reference and prioritized attention.
- ➤ Admins can quickly navigate to pinned responses, facilitating focused analysis and action on key issues raised by students.

FUNCTIONAL REQUIREMENTS:

- User Authentication: Secure login using Google OAuth.
- **Survey Creation Interface:** The interface support options for formatting, rearranging, and deleting questions as needed.
- Student Response Management: The system allow students to submit their responses securely and optionally provide the choice to reject surveys.
- **Dynamic Dashboard:** Real-time survey viewing and interaction.
- **Priority Algorithm:** Automated prioritization of responses based on NLP.

NON-FUNCTIONAL REQUIREMENTS:

Security:

The system should adhere to industry-standard security protocols to safeguard sensitive student data and maintain confidentiality.

• Performance:

The platform should be capable of handling concurrent user interactions and survey submissions without significant degradation in performance.

Response times for loading surveys, submitting responses, and generating reports should be optimized to enhance user experience.

• Scalability:

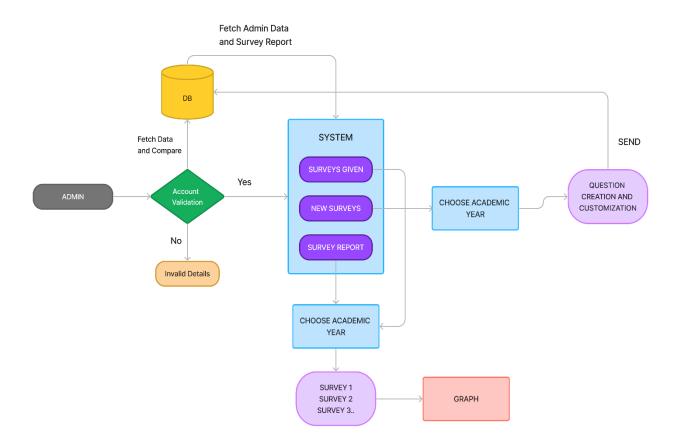
Scalability measures should ensure that the platform remains responsive and efficient, even during periods of high usage or growth.

• Accessibility:

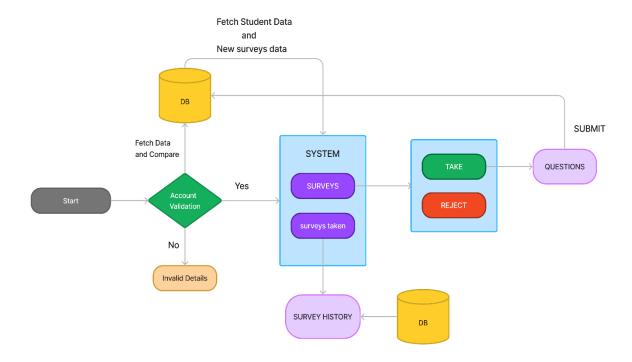
The platform should be accessible across various devices and web browsers to accommodate the diverse needs of users.

FLOW CHART:

ADMIN

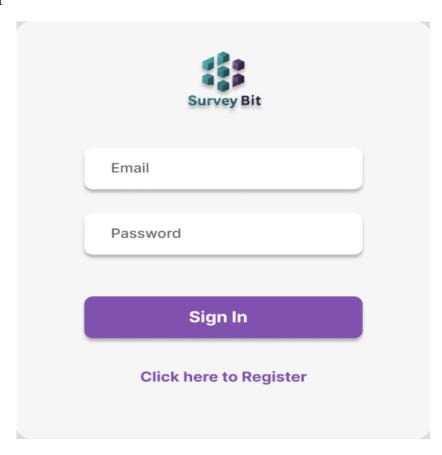


USER

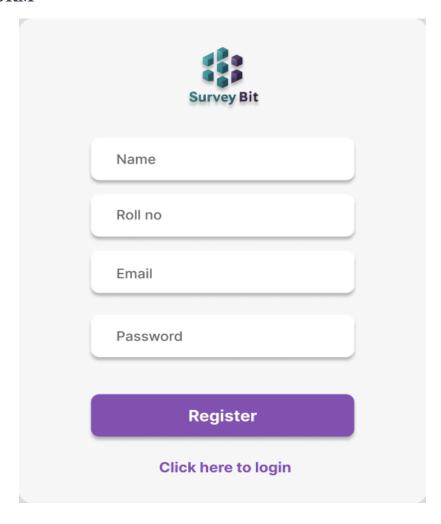


DESIGN OF THE PROJECT:

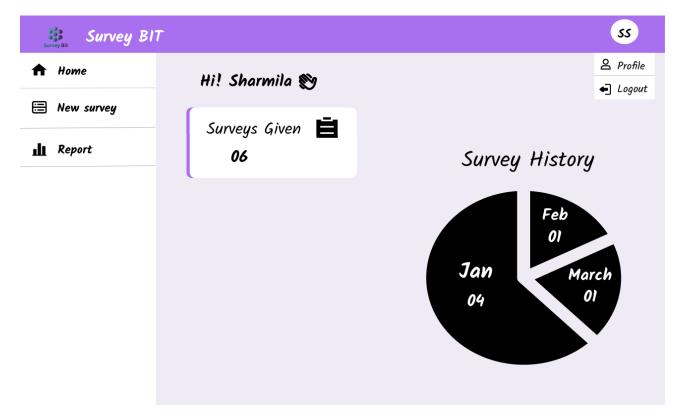
1. LOGIN FORM



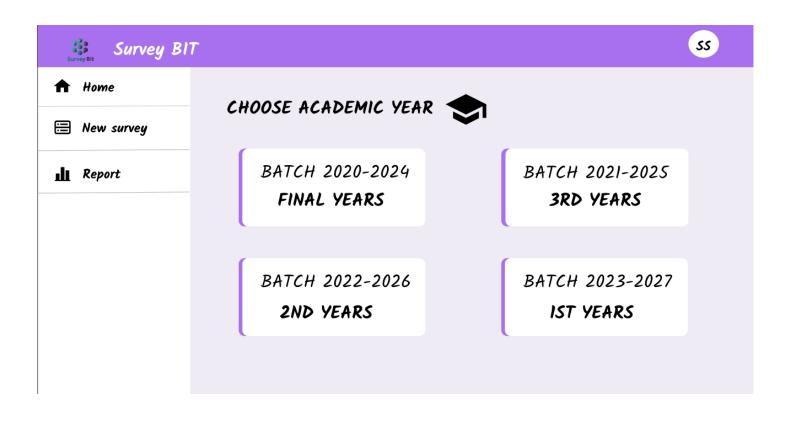
2. REGISTER FORM

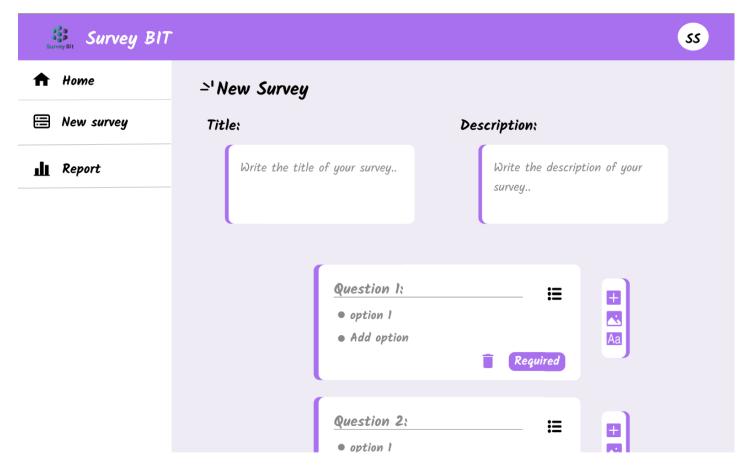


3. ADMIN'S VIEW

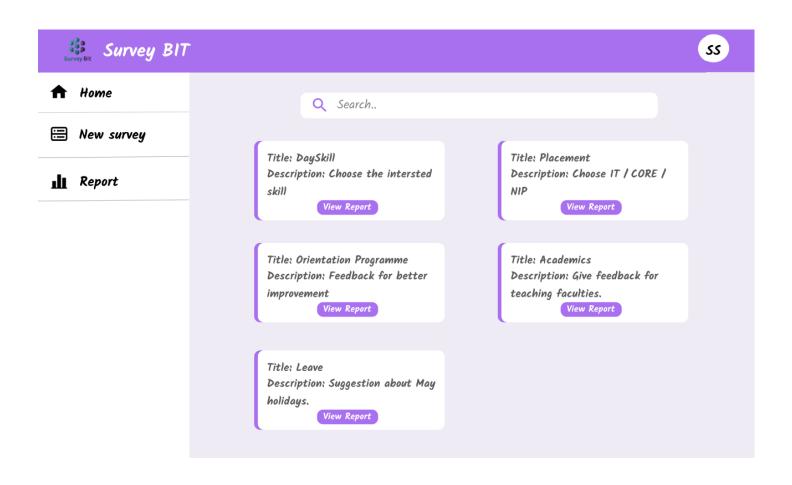


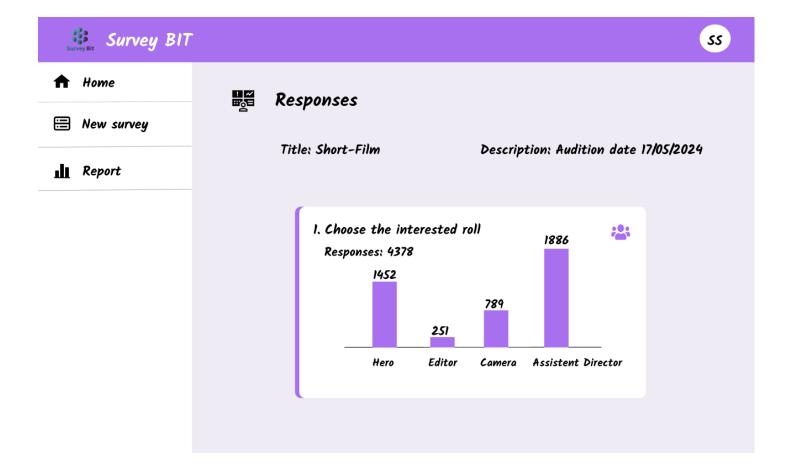
4. NEW SURVEY

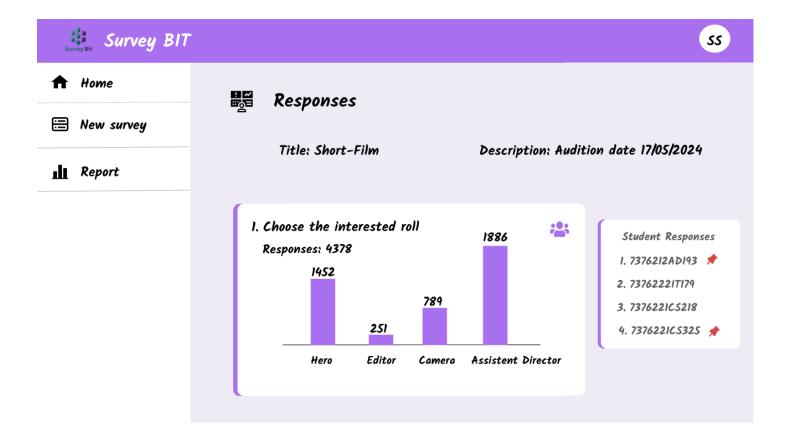




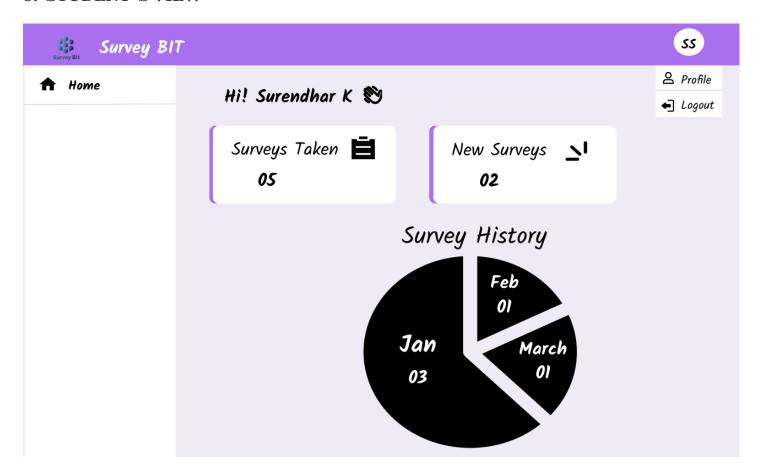
5. SURVEY REPORT



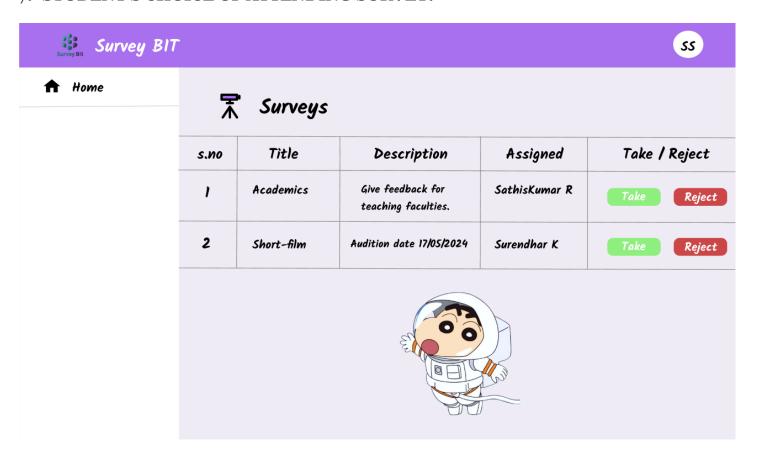




6. STUDENT'S VIEW



7. STUDENT'S CHOICE OF ATTENDING SURVEY:



8. SURVEY PAGE:

