Project (Exam #3): Event Feedback Portal

Aaron Brown - Software Development

1. Survey Form (event_survey.html)

Description

Create a survey form in the event_survey.html file. Add basic formatting using CSS.
That HTML form must include:
- **Name** (text input)
- **Email** (email input)
- **Event Name** (text input)
- **Event Type** (dropdown)
- **Overall Rating (1–5)** (radio buttons)
- **Would Attend Again (Yes/No)** (radio buttons)
- **Highlight / Favorite Part** (textarea)

Implementation

The survey form was implemented using multiple form element inputs / selects. The form gets the answers validated by validation.js external script before sending the required answers to submit_survey.php. Basic CSS was implemented externally (event_survey.css) to add formatting to make the survey form look clean.

Reasoning

- **HTML5 Input Types**: Used the input types that were given in the step 1 instructions.
- **Form Layout**: Made the form look modern and logical keeping the questions in the same order as the given form requirements.
- **External Files**: Kept the validation script logic and basic CSS external to keep the HTML less complicated and neat.

2. JavaScript Client-Side Validation

Description

Write JavaScript that:

- Ensures all fields are filled
- Verifies email format
- Confirms a rating is selected
- Prevents form submission if validation fails

Implementation

I created an external JavaScript file called validation.js that validates all form fields before submission. The script captures the form submission event and checks all required fields. The script uses regular expressions to validate the email format and checks that radio buttons for rating and interest are selected.

Reasoning

- **Event Listeners**: Used event listeners to capture the form submission and perform validation before allowing data to be sent to the server.
- **Regex for Email**: Implemented a regular expression pattern to ensure email addresses follow the standard format.
- **Form Submission Control**: The script prevents form submission if any validation checks fail, ensuring only complete data reaches the server.

3. PHP Processing Script (submit_survey.php)

Description

Create a PHP script that:

- Accepts submitted form data
- Sanitizes and validates the data
- Inserts data into a MariaDB table

Implementation

A PHP script was created to handle form submissions. The script sanitizes all input data and validates the data. It connects to the MariaDB database using PDO and inserts the validated data into the responses table. Users are then moved to the report page automatically.

Reasoning

- **Server-Side Validation**: Implemented as a security measure since client-side validation can be bypassed.
- **Input Sanitization**: Used PHP's built-in sanitization functions to clean all user inputs.
- **PDO for Database Access**: Used PDO to create a database connection.
- **Error Handling**: Implemented try-catch blocks to debug database connection issues.
- **Redirect After Success**: Automatically shows users the results page after successful submission since there's nothing to display and makes things seamless.

4. MariaDB Table Creation

Description

Design and create the following table in a MariaDB database called event_survey_db:

```
CREATE TABLE responses (
    id INT AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(100),
    email VARCHAR(100),
    event_name VARCHAR(255),
    event_type VARCHAR(50),
    rating INT,
    interest VARCHAR(5),
    highlight TEXT,
    submitted_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP
);
```

Implementation

I created the table in a database I created called event_survey_db. I also created a role that only has permissions related to the responses table.

Reasoning

- **Responses table**: The table was created 1 to 1 of what was given in the step 4 instruction.
- **Creating a role**: Prevents any possible chances of it affecting the database and the rest of the MariaDB.

5. Report Page (db_report.php)

Description

Build a PHP page that:

- Connects to the database
- Retrieves and displays the submitted survey results in an HTML table
- Shows: Name, Event Name, Event Type, Rating, Interest, Highlight, Timestamp

Implementation

Created a PHP page that creates a database connection using PDO and gets all submitted survey responses. The data from the database is displayed in a HTML table showing all fields. More queries are done to collect data for the visualization components. The page includes a link to return back to the survey and refreshes automatically to show the latest data.

Reasoning

- **Data Ordering**: Sorted submissions by timestamp with newest entries first to make it more intuitive.
- **Data Aggregation**: Created specific queries to calculate summary statistics for the visualizations.
- **Page Link**: Included a link to return to the survey as a quality of life feature.

6. Visualization Component

Description

Create at least one visualization based on the survey results, such as:

- A bar chart showing how many users selected each rating (1–5)
- A pie chart showing how many users said "Yes" or "No" to attending again

Implementation

I implemented the two visualizations given as examples using the Chart.js library:

1. A bar chart displaying the distribution of ratings from 1 to 5
2. A pie chart showing the proportion of "Yes" vs "No" responses to the "Would Attend Again" question

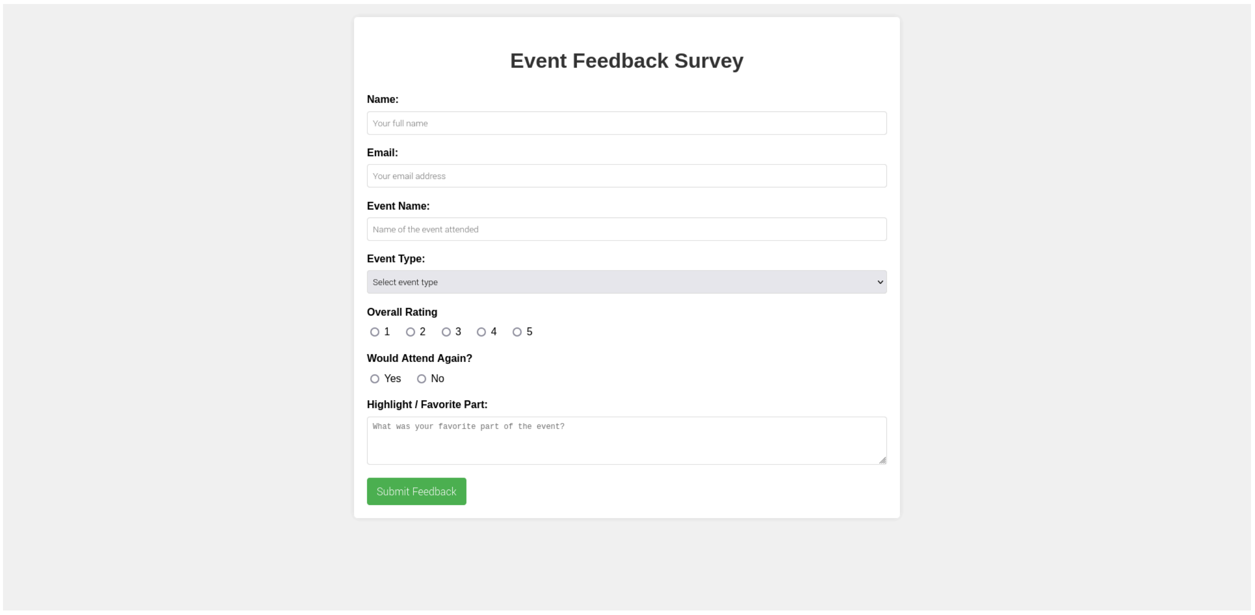
The implementation retrieves aggregated data from the database, converts it to JSON format for JavaScript processing, and renders the charts using HTML canvas elements.

Reasoning

- **Chart.js**: Selected Chart.js because it was given as an example and is open-source.
- **Visualization Types**: Used bar chart for ratings and pie chart for the Yes/No data because it was suggested.
- **Data Processing**: Created specific PHP queries to aggregate the data needed for each chart.
- **JSON Bridge**: Used JSON encoding to transfer data from PHP to JavaScript efficiently.

Example Screenshots

Initial Survey Form:



Event Feedback Survey

Name:

Your full name

Email:

Your email address

Event Name:

Name of the event attended

Event Type:

Select event type

Overall Rating

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

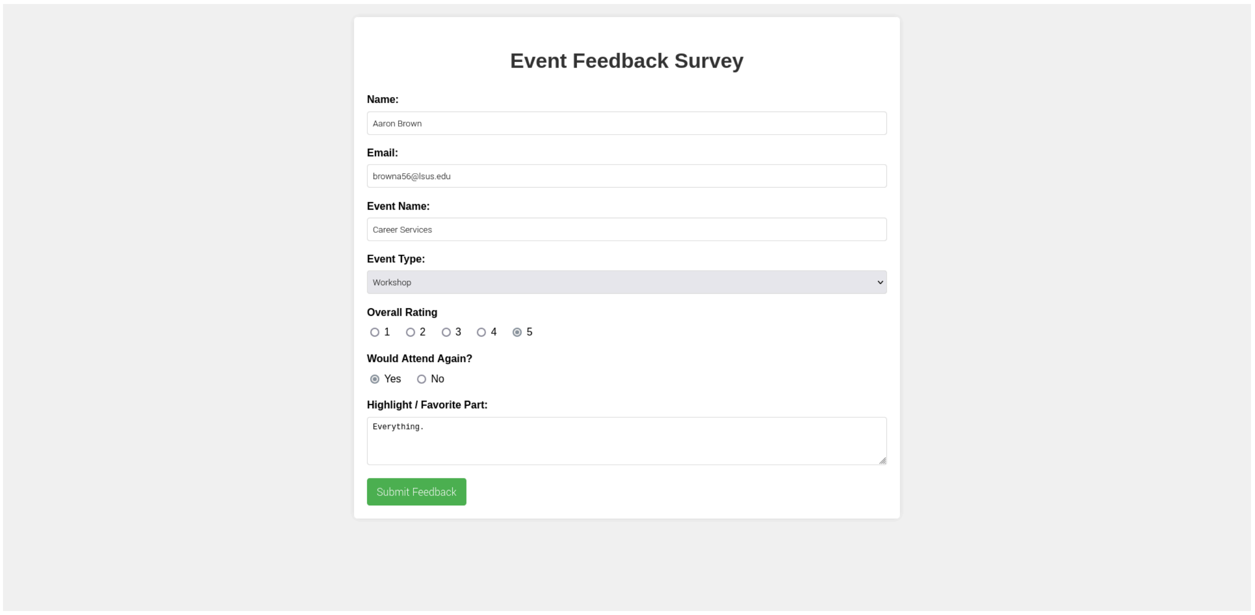
Would Attend Again?

○ Yes ○ No

Highlight / Favorite Part:

What was your favorite part of the event?

Survey Form Filled Out:



Event Feedback Survey

Name:

Aaron Brown

Email:

browna56@lsus.edu

Event Name:

Career Services

Event Type:

Workshop

Overall Rating

1 2 3 4 [✓ 5]

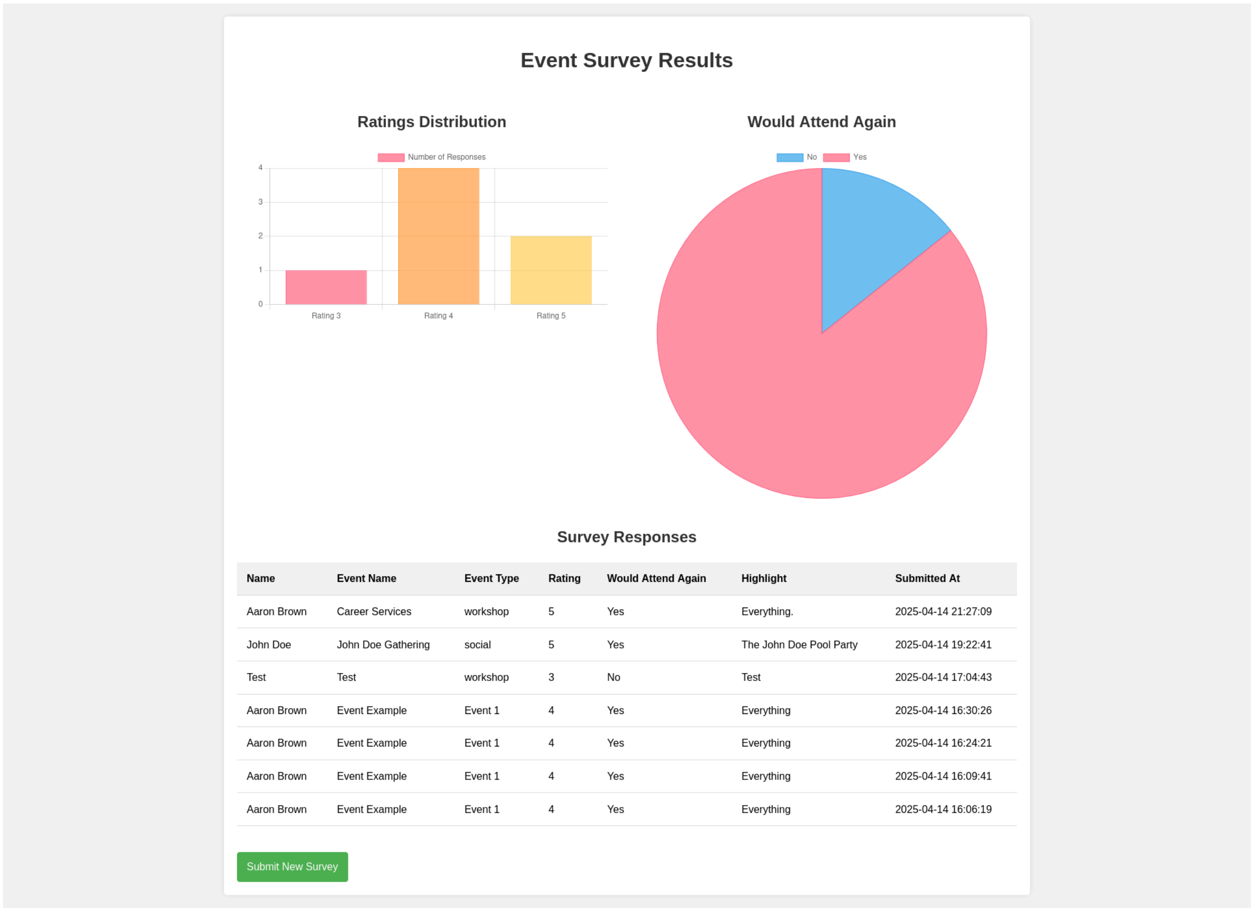
Would Attend Again?

[✓ Yes] No

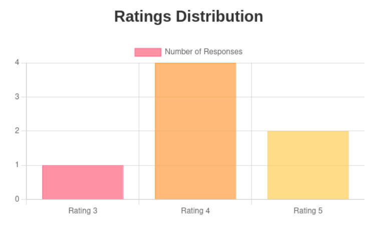
Highlight / Favorite Part:

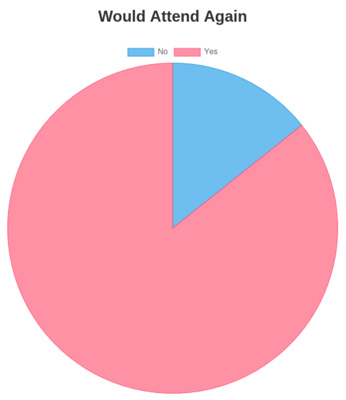
Everything.

Report Page (With additional previous testing):



Event Survey Results



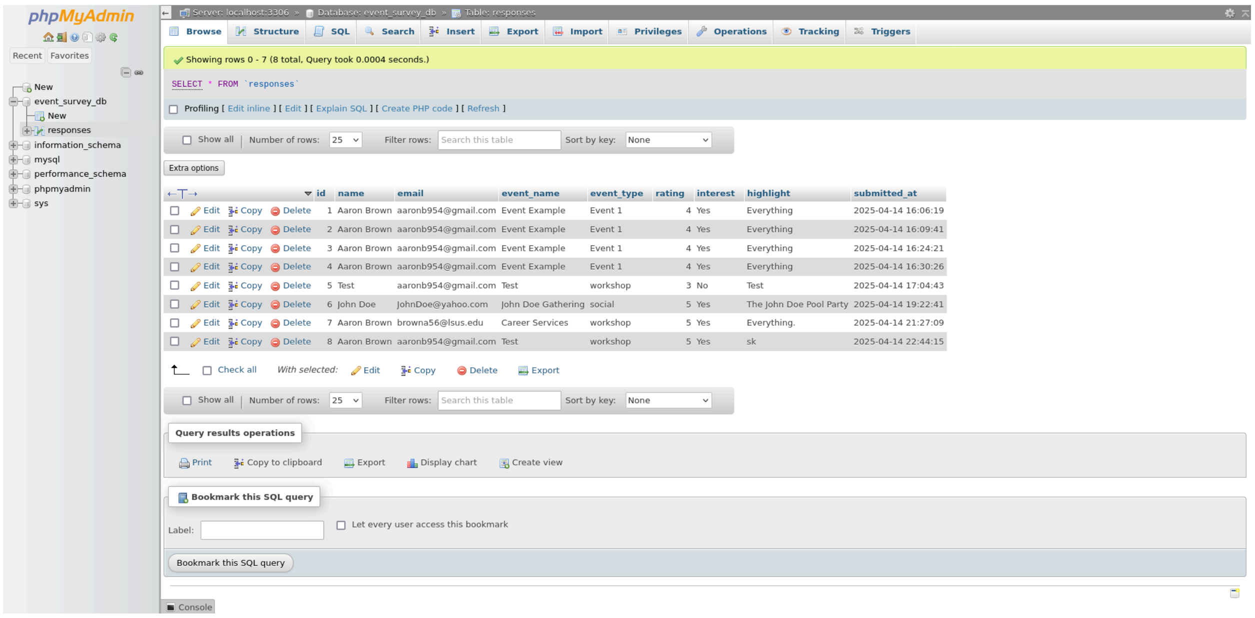


Survey Responses

Name	Event Name	Event Type	Rating	Would Attend Again	Highlight	Submitted At
Aaron Brown	Career Services	workshop	5	Yes	Everything.	2025-04-14 21:27:09
John Doe	John Doe Gathering	social	5	Yes	The John Doe Pool Party	2025-04-14 19:22:41
Test	Test	workshop	3	No	Test	2025-04-14 17:04:43
Aaron Brown	Event Example	Event 1	4	Yes	Everything	2025-04-14 16:30:26
Aaron Brown	Event Example	Event 1	4	Yes	Everything	2025-04-14 16:24:21
Aaron Brown	Event Example	Event 1	4	Yes	Everything	2025-04-14 16:09:41
Aaron Brown	Event Example	Event 1	4	Yes	Everything	2025-04-14 16:06:19

Submit New Survey

Database and Table:



Server: localhost:3306 » Database: event_survey_db » Table: responses

✓ Showing rows 0 - 7 (8 total, Query took 0.0004 seconds.)

```
SELECT * FROM `responses`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	id	name	email	event_name	event_type	rating	interest	highlight	submitted_at
Edit Copy Delete	1	Aaron Brown	aaronb954@gmail.com	Event Example	Event 1	4	Yes	Everything	2025-04-14 16:06:19
Edit Copy Delete	2	Aaron Brown	aaronb954@gmail.com	Event Example	Event 1	4	Yes	Everything	2025-04-14 16:09:41
Edit Copy Delete	3	Aaron Brown	aaronb954@gmail.com	Event Example	Event 1	4	Yes	Everything	2025-04-14 16:24:21
Edit Copy Delete	4	Aaron Brown	aaronb954@gmail.com	Event Example	Event 1	4	Yes	Everything	2025-04-14 16:30:26
Edit Copy Delete	5	Test	aaronb954@gmail.com	Test	workshop	3	No	Test	2025-04-14 17:04:43
Edit Copy Delete	6	John Doe	JohnDoe@yahoo.com	John Doe Gathering	social	5	Yes	The John Doe Pool Party	2025-04-14 19:22:41
Edit Copy Delete	7	Aaron Brown	browna56@lsus.edu	Career Services	workshop	5	Yes	Everything.	2025-04-14 21:27:09
Edit Copy Delete	8	Aaron Brown	aaronb954@gmail.com	Test	workshop	5	Yes	sk	2025-04-14 22:44:15

Check all With selected: Edit Copy Delete Export

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

Query results operations

Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query

Label: Let every user access this bookmark

Bookmark this SQL query

Console