# Buzby

## A Bee-Themed Student Group Work Helper

*Developed By: Javier Huang*

**https://buzby.pages.dev/**
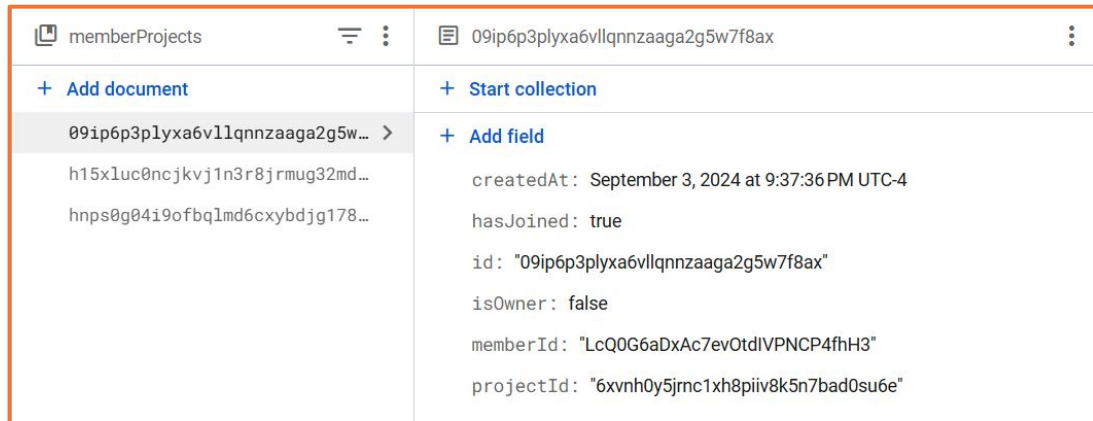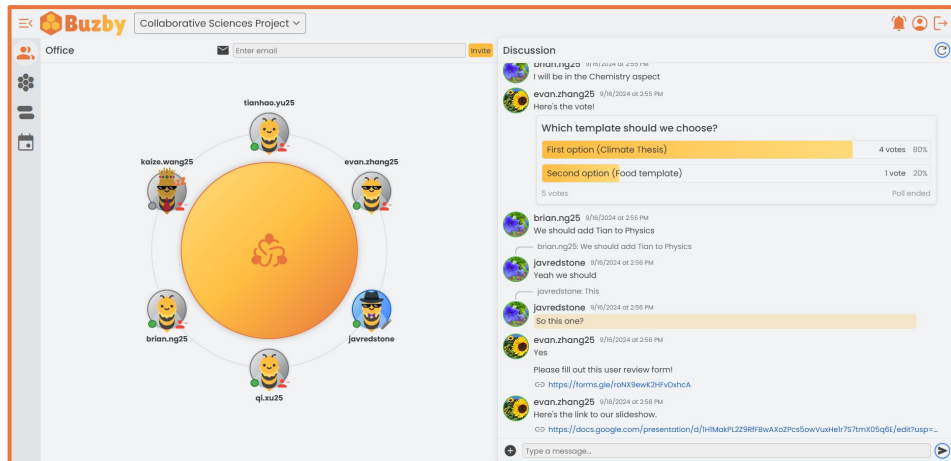
# Code Structure

## SvelteKit Frontend

### 100% Custom Styling and Design

Request      Response

## Firebase Firestore

### Online Cloud Database + Authentication API

# Entity Relation Diagram



**pollOptions**

| PK | id STRING |
|----|-----------|
| FK | pollId STRING |
| FK | memberId STRING |
|    | name STRING |
|    | createdAt DATE |

**messages**

| PK | id STRING |
|----|-----------|
| FK | memberId STRING |
| FK | replyId STRING |
| FK | pollId STRING |
|    | text STRING |
|    | createdAt DATE |

**polls**

| PK | id STRING |
|----|-----------|
|    | question STRING |
|    | multiple BOOLEAN |
|    | duration NUMBER |

**memberProjects**

| PK | id STRING |
|----|-----------|
| FK | memberId STRING |
| FK | projectId STRING |
|    | hasJoined BOOLEAN |
|    | isOwner BOOLEAN |
|    | createdAt DATE |

**projects**

| PK | id STRING |
|----|-----------|
|    | name STRING |
|    | description STRING |
|    | color STRING |
|    | createdAt DATE |

**members**

| PK | id STRING |
|----|-----------|
|    | email STRING |
|    | displayName STRING |
|    | statusBase NUMBER |
|    | statusHead NUMBER |
|    | statusEyes NUMBER |
|    | statusNeck NUMBER |
|    | avatarChoice NUMBER |
|    | createdAt DATE |

**memberTasks**

| PK | id STRING |
|----|-----------|
| FK | memberId STRING |
| FK | taskId STRING |
|    | createdAt DATE |

**tasks**

| PK | id STRING |
|----|-----------|
| FK | projectId STRING |
|    | name STRING |
|    | description STRING |
|    | percentage NUMBER |
|    | hiveX NUMBER |
|    | hiveY NUMBER |
|    | hiveY NUMBER |
|    | startDate DATE |
|    | startDate DATE |
|    | createdAt DATE |

**pings**

| PK | id STRING |
|----|-----------|
| FK | memberId STRING |
| FK | projectId STRING |
| FK | messageId STRING |
|    | title STRING |
|    | message STRING |
|    | type NUMBER |
|    | createdAt DATE |

**occasions**

| PK | id STRING |
|----|-----------|
| FK | projectId STRING |
|    | name STRING |
|    | description STRING |
|    | color STRING |
|    | startTime DATE |
|    | endTime DATE |
|    | createdAt DATE |

**memberOccasions**

| PK | id STRING |
|----|-----------|
| FK | memberId STRING |
| FK | occasionId STRING |
|    | createdAt DATE |

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# Home Page

Creating New Projects

Project Editing / Invitation / Deletion

The student can create a project and invite others to join, and make changes to it.

# Office Page

Inviting Members



Students can discuss their project, send attachments, or use polls, as well as monitor each others' statuses.

Chat / Discussion Panel

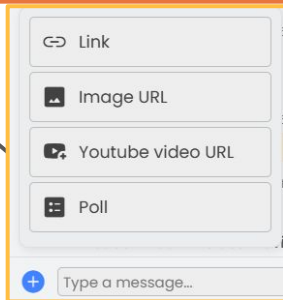Member Moderation

Adjusting Avatar

Adding Chat Attachments and Polls

# Hive Page



Students can create new tasks, assign them to others, monitor them, and get alerted when tasks are still not completed near their due date.

Task List Panel

Creating New Tasks

Assigning Members and Dates

# Gantt Chart Page
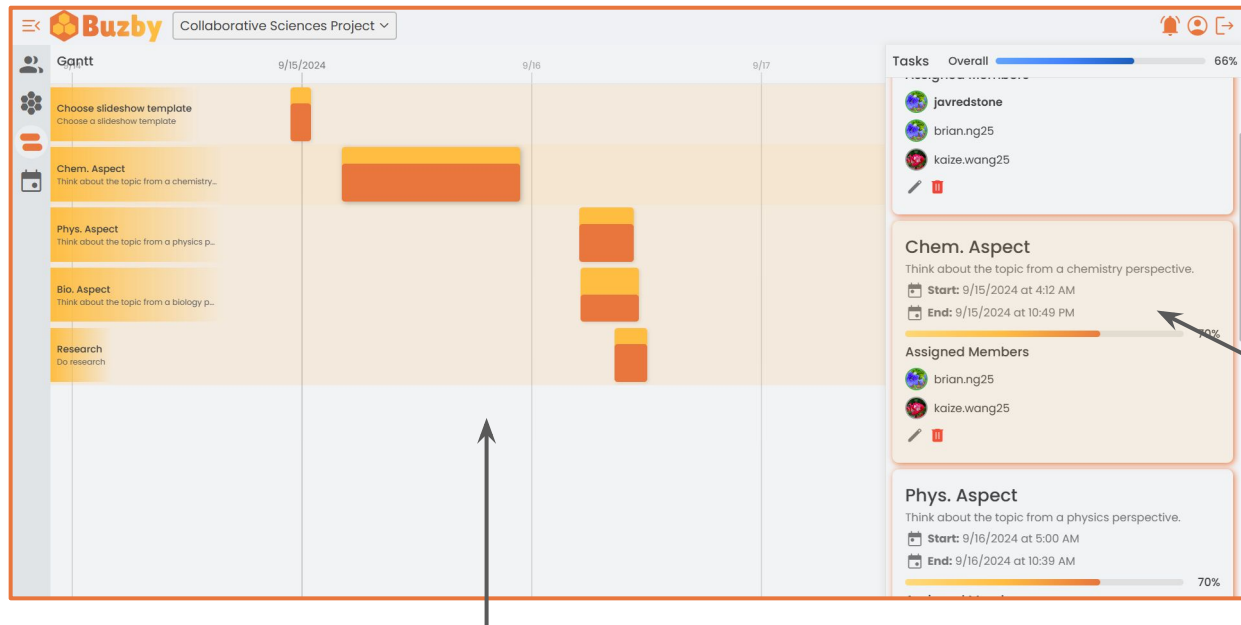


Students can drag tasks around, rearrange them, and monitor them in a timeline-based fashion.

Task List Panel

Tasks Listed and Temporally Ordered

# Calendar Page
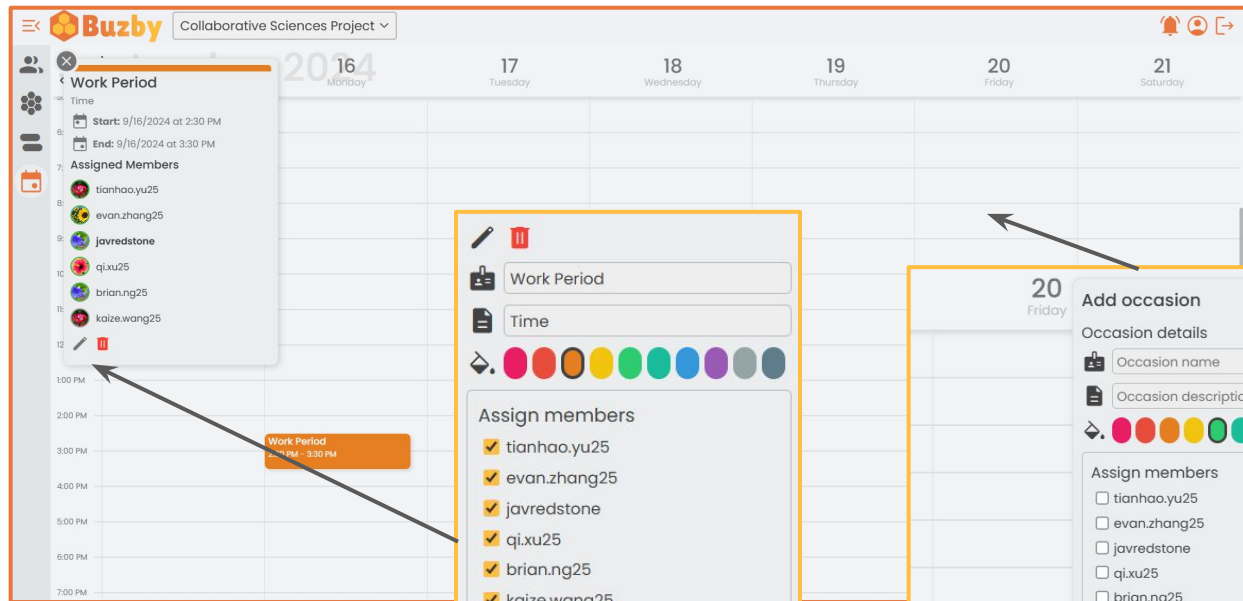
Editing Occasions

Creating New Occasions + Assigning Members + Times

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# Real-World Use
International Baccalaureate (IB) Collaborative Science Project (CSP)



Buzby has been used and brought to its full potential in a real-life scenario during our International Baccalaureate (IB) Collaborative Sciences Project (CSP), where it was very helpful and made our group collaborate more efficiently.

**Buzby**

Thank you!