

Google AppSheet IT Ticket Management App:

Create, Close, and Re-open tickets to the Admin

Version 1.1.1

BMV SYSTEM INTEGRATION PRIVATE LIMITED

Idea... Implementation... Innovation...

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Introduction to the project

1.1 Overview

The IT Ticket Management App is a dynamic solution designed to streamline the process of IT issue resolution within an organization. By leveraging modern technology, it provides a centralized platform for employees to report IT issues and for administrators to manage and resolve them efficiently. The app facilitates seamless communication between employees and IT support personnel, ensuring timely resolution of IT-related problems.

1.2 Objectives, Goals, and Features

Objectives:

- **Centralization of Ticket Management:** The primary objective of the IT Ticket Management App is to centralize the management of IT support tickets, eliminating the need for disparate systems and manual processes.
- **Efficient Issue Resolution:** By providing a structured workflow for ticket submission, assignment, and resolution, the app aims to improve the efficiency of IT issue resolution within the organization.
- **Enhanced Communication:** The app facilitates improved communication between employees and IT support personnel through automated notifications and updates at every stage of the ticket lifecycle.

Goals:

- **Reduced Ticket Resolution Time:** One of the key goals of the app is to minimize the time taken to resolve IT support tickets, thereby minimizing downtime and improving productivity.
- **Improved User Satisfaction:** By offering a user-friendly interface and prompt resolution of IT issues, the app aims to enhance user satisfaction with IT support services.
- **Insightful Reporting:** The app provides comprehensive reporting and analytics capabilities, enabling administrators to gain insights into IT support operations and identify areas for improvement.

Features:

- **Ticket Submission:** Employees can easily submit IT support tickets through the app, providing details such as issue description, priority level, and relevant attachments.
- **Role-based Access Control:** The app implements role-based access control, allowing administrators to define user roles and permissions based on organizational hierarchy.
- **Automated Notifications:** Automated email notifications are sent to the relevant stakeholders (employees, ticket admins) at various stages of the ticket lifecycle, keeping them informed of ticket updates.
- **Closed and Re-opened Ticket Handling:** The app allows ticket admins to efficiently manage closed tickets and handle cases where tickets need to be re-opened for further assistance.
- **Integration with Email:** The app integrates with email systems to ensure that stakeholders receive timely notifications and updates even when they are not actively using it.

App and Database Overview

2.1 Multi-user App Overview

The IT Ticket Management App is built on the AppSheet platform, providing multi-user support for seamless collaboration among administrators and employees. It utilizes a cloud-based spreadsheet as its underlying database, leveraging the scalability and accessibility of cloud storage for storing user and ticket data.

2.2 Database Overview

User Table:

The user table serves as a repository for storing information about all users of the IT Ticket Management App. It contains the following fields:

1. **User ID:** A unique identifier for each user, automatically generated by the system.
2. **Name:** The full name of the user.

3. **Email:** The email address associated with the user's account, is used for communication and login purposes.
4. **Type:** Specifies the type of user (e.g., employee, admin), determining their role and access permissions within the app.
5. *Additional fields:* Depending on the specific requirements of your organization, additional fields such as department, contact number, or role may be included.

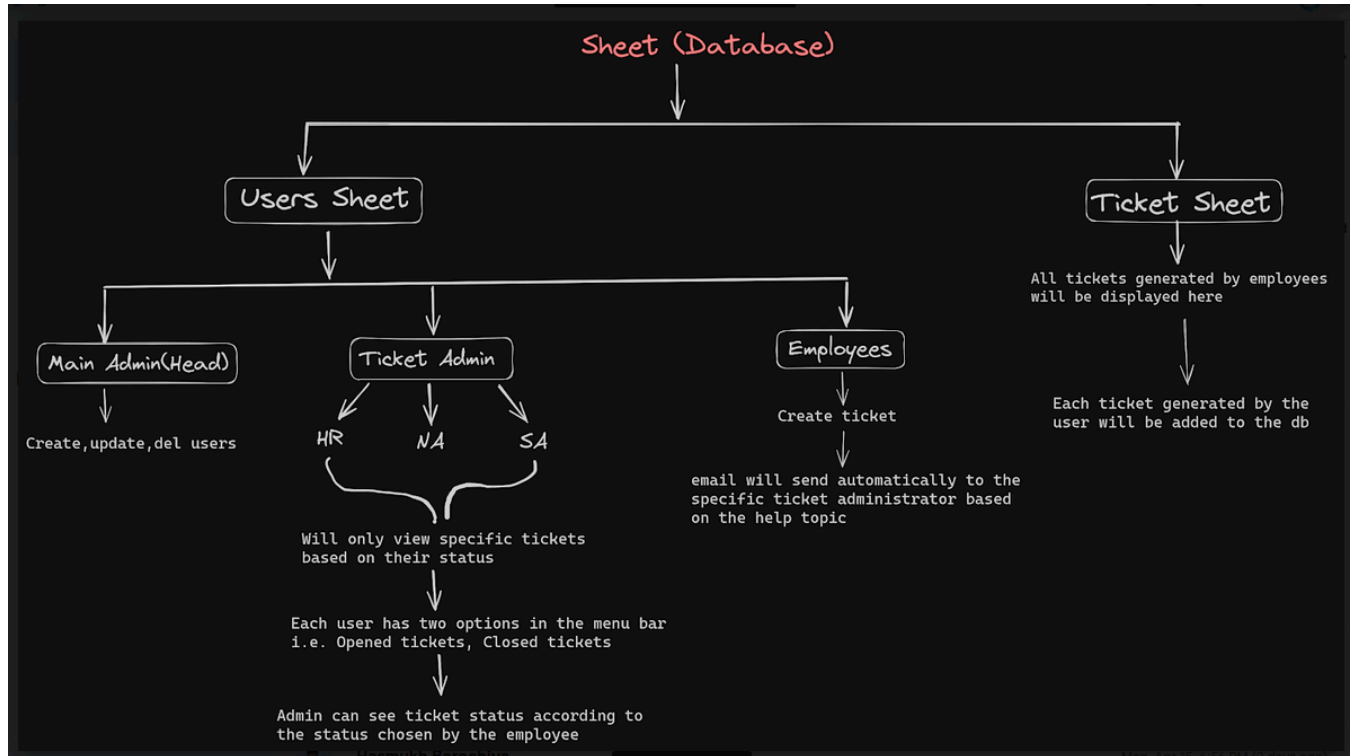
Ticket Table:

The ticket table stores detailed information about each IT support ticket submitted through the app. It includes the following fields:

1. **Ticket ID:** A unique identifier for each ticket, automatically generated by the system.
2. **Created By:** The user ID of the employee who created the ticket.
3. **Assigned To:** The user ID of the ticket admin responsible for handling the ticket.
4. **Subject:** A summary or title of the issue reported in the ticket.
5. **Description:** A detailed description of the IT issue reported by the employee.
6. **Priority:** The priority level assigned to the ticket (e.g., low, medium, high).
7. **Status:** The current status of the ticket (e.g., open, closed, in progress).
8. **Created Date:** The date and time when the ticket was created.
9. **Closed Date:** The date and time when the ticket was closed, if applicable.
10. *Additional fields:* Depending on your organization's requirements, additional fields such as category, attachment links, or comments may be included.

2.3 Data flow Diagram

The data flow diagram (DFD) illustrates the flow of data within the IT Ticket Management App, depicting how information moves between various components of the system. It provides a visual representation of the interactions between users, the app interface, and the underlying database.



Components:

1. **User Interface:** The front-end interface of the IT Ticket Management App, accessible by employees and administrators. Users interact with the interface to submit tickets, view ticket status, and perform other actions.
2. **App Logic:** The logic layer of the app is responsible for processing user inputs, handling ticket assignments, sending notifications, and updating the database accordingly. It ensures the smooth functioning of the app and enforces business rules.
3. **Database:** The cloud-based spreadsheet serves as the backend database for the app. It stores user details, ticket information, and other relevant data, facilitating data storage, retrieval, and manipulation.
4. **Email Integration:** An external service or API integrated with the app to handle email notifications. It sends automated emails to users and administrators at various stages of the ticket lifecycle, providing updates and notifications.

Data Flow:

1. **Ticket Submission:** When an employee submits a new IT support ticket through the app interface, the ticket details, including the issue description, priority level, and user information, are captured by the app logic layer.
2. **Database Update:** The app logic layer updates the ticket table in the database with the newly submitted ticket information, assigning a unique ticket ID and recording relevant details such as the creation date and assigned admin.
3. **Notification:** Upon ticket submission, the app logic layer triggers an email notification to the assigned ticket administrator, informing them of the new ticket and prompting them to take action.
4. **Ticket Handling:** The ticket administrator reviews the ticket details through the app interface, updates the ticket status, and provides relevant comments or resolutions.
5. **Database Update:** Any updates made to the ticket (e.g., status change, comments) by the ticket administrator are reflected in the database, ensuring data consistency and integrity.
6. **Email Notification:** If the ticket status is updated (e.g., closed), an automated email notification is sent to the employee who submitted the ticket, informing them of the resolution or status change.

User and Admin Guides

4.1 Create Users by Main Admin

Procedure for Main Admin:

1. **Access User Management:** Log in to the IT Ticket Management App with main admin credentials.
2. **Navigate to User Management:** Locate and navigate to the user management section within the app interface.
3. **Add New User:**
 - Click on the "Add User" button or a similar option.
 - Fill in the required user details, including name, email, and user type (admin or employee).
4. **Assign Role and Permissions:**

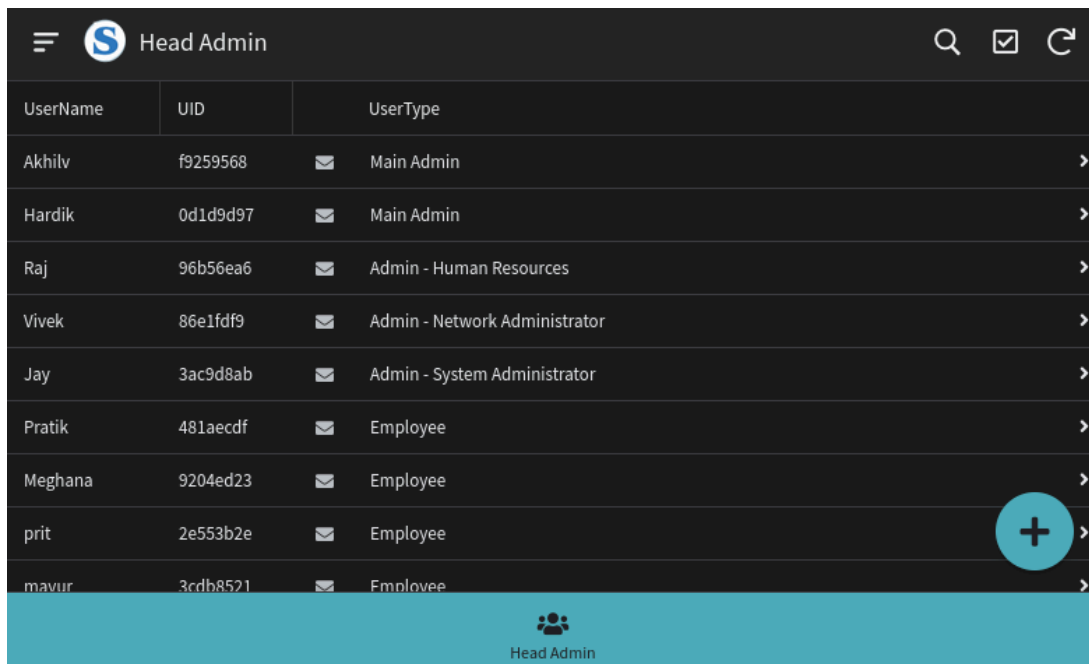
- Specify the role and permissions for the new user based on organizational requirements.
- Options may include admin privileges for IT administrators or standard user permissions for employees.

5. Save Changes:

- Once all details are entered and permissions are assigned, click on the "Save" or "Submit" button to create the new user account.

6. Confirmation Email:

- The newly created user will receive an email notification with login instructions and account details.



The screenshot shows the 'Head Admin' interface of the IT Ticket Management App. It features a dark-themed header with a menu icon, the 'S' logo, and the text 'Head Admin'. On the right side of the header are icons for search, a checked checkbox, and a refresh icon. Below the header is a table with three columns: 'UserName', 'UID', and 'UserType'. The table lists ten users, each with a row containing their name, UID, a mail icon, their role, and a right-pointing arrow. A large teal circular button with a white plus sign is positioned to the right of the table. At the bottom of the screen is a teal footer bar with a group of people icon and the text 'Head Admin'.

UserName	UID	UserType
Akhilv	f9259568	Main Admin
Hardik	0d1d9d97	Main Admin
Raj	96b56ea6	Admin - Human Resources
Vivek	86e1fdf9	Admin - Network Administrator
Jay	3ac9d8ab	Admin - System Administrator
Pratik	481aecdf	Employee
Meghana	9204ed23	Employee
prit	2e553b2e	Employee
mavur	3cdb8521	Employee

4.2 Create, Modify, and Re-open Tickets by Employee

Procedure for Employees:

1. Access Ticket Submission Form:

- Log in to the IT Ticket Management App with employee credentials.
- Navigate to the ticket submission section within the app interface.

2. Submit New Ticket:

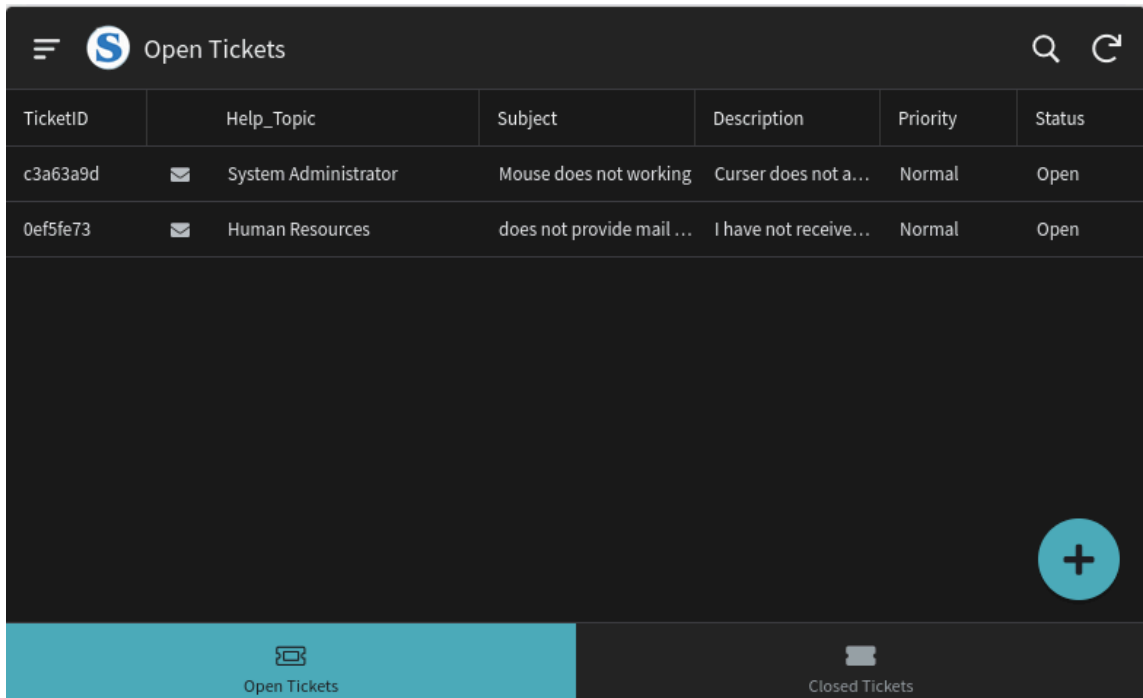
- Fill in the required fields in the ticket submission form, including subject, description, and priority level.
- Attach any relevant files or screenshots if necessary.
- Click on the "Submit" or "Create Ticket" button to submit the new ticket.

3. Modify Ticket (if needed):

- If additional information is required or changes need to be made to an existing ticket:
 - Navigate to the "My Tickets" or similar section to view open tickets.
 - Select the ticket to be modified and click on the "Edit" or "Modify" option.
 - Update the relevant fields or provide additional information in the ticket form.
 - Save the changes by clicking on the "Save" or "Update" button.

4. Re-open Closed Ticket:

- If an issue persists or additional assistance is required after a ticket has been closed:
 - Navigate to the "Closed Tickets" section to view previously closed tickets.
 - Select the closed ticket to be re-opened and click on the "Re-open" or "Request Re-open" option.
 - Provide any additional information or updates regarding the issue.
 - Submit the request to re-open the ticket.



TicketID	Help_Topic	Subject	Description	Priority	Status
c3a63a9d	System Administrator	Mouse does not working	Curser does not a...	Normal	Open
0ef5fe73	Human Resources	does not provide mail ...	I have not receive...	Normal	Open

4.3 Closed and Handled Employee Tickets by Ticket Admins

Procedure for Ticket Admins:

1. Ticket Assignment:

- Upon receiving a new ticket notification, log in to the IT Ticket Management App with ticket admin credentials.
- Access the ticket management section to view and assign tickets to appropriate administrators.
- Assign tickets based on workload, expertise, and priority level.

2. Resolve Issue:

- Review the details of assigned tickets, including the issue description and priority level.
- Take necessary actions to resolve the reported issues, such as troubleshooting, providing solutions, or escalating to higher levels of support if required.
- Communicate with the employee if additional information is needed or updates are available regarding the ticket status.

3. Closure:

- Once the reported issue has been resolved satisfactorily, update the ticket status to "Closed" within the app interface.
- Provide a closing message or resolution summary to inform the employee of the outcome.
- Ensure all relevant details and actions taken are documented within the ticket for future reference.

Access the App

To access the IT Ticket Management App and experience its accessibility features firsthand, please visit the following link:

<https://www.appsheets.com/start/7f9c38a6-9c04-4de7-8cea-f35f7ac35b28>

Our app is designed to be accessible across various devices, including laptops, tablets, and mobile phones. You can seamlessly switch between different modes to suit your preferred device and screen size. Additionally, you have the option to install the app on your mobile device for convenient access anytime, anywhere.

Experience the convenience of managing IT support tickets with our user-friendly and accessible app. Simply click the provided link to get started.