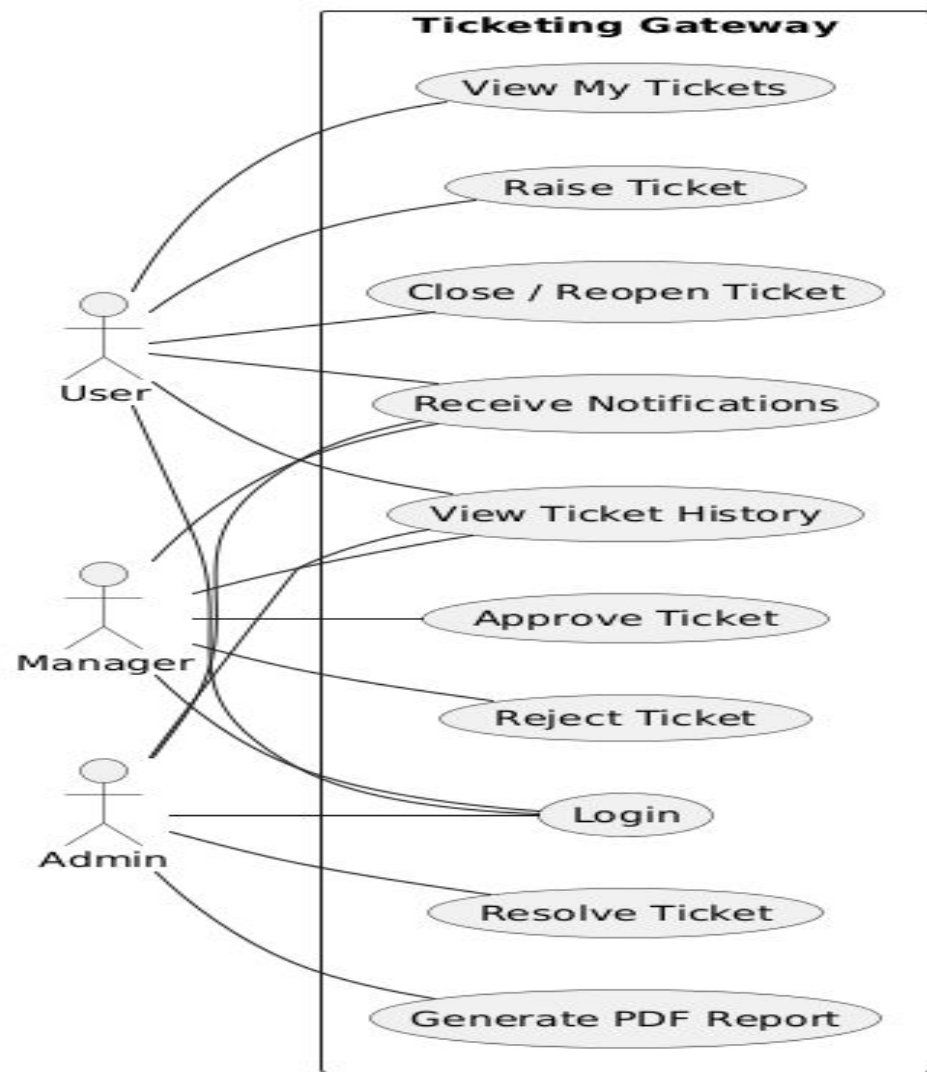# Sravya Pola

Ticketing Gateway System
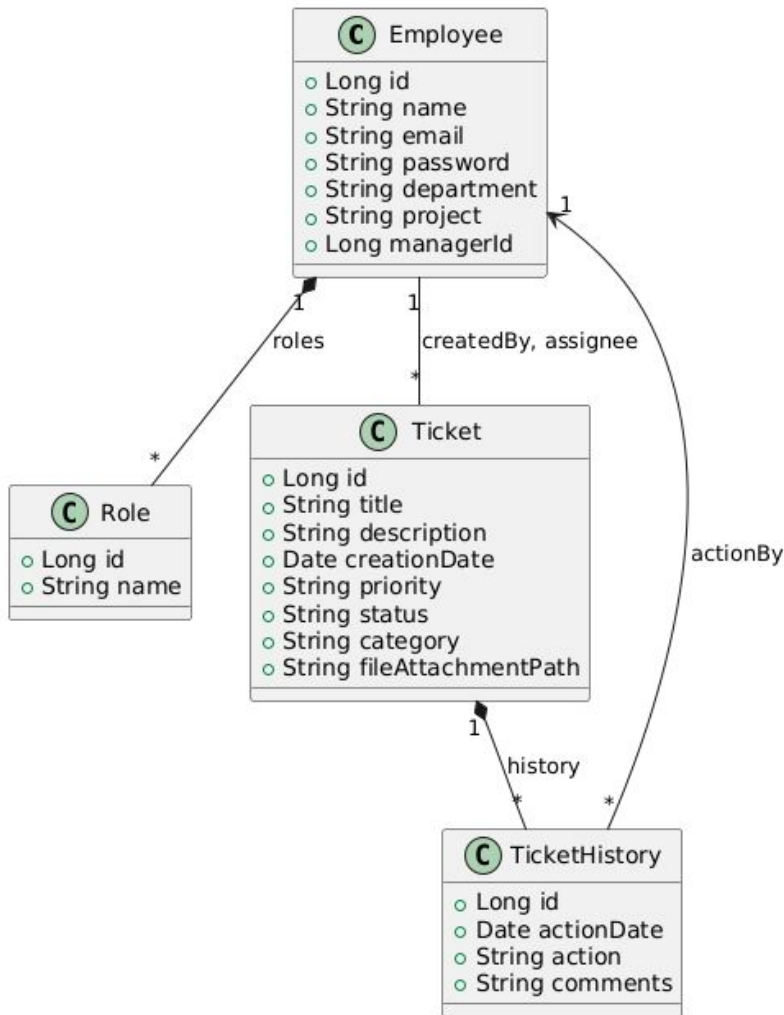
About the Project:

The Ticketing Gateway System is a full-stack, microservices-based application designed to streamline the end-to-end lifecycle of support tickets across organizational roles (USER, MANAGER, ADMIN). Built with Java Spring Boot on the backend and a lightweight HTML/jQuery/AJAX frontend, it offers secure authentication, role-based dashboards, and a robust workflow for ticket creation, approval, resolution, and closure.

User – any employee who can raise tickets and track their own requests.

Manager – reviews and approves or rejects tickets submitted by Users.

Admin – resolves approved tickets, generates reports, and closes or reopens tickets as needed.

Ticketing Gateway

- View My Tickets
- Raise Ticket
- Close / Reopen Ticket
- Receive Notifications
- View Ticket History
- Approve Ticket
- Reject Ticket
- Login
- Resolve Ticket
- Generate PDF Report

User

Manager

Admin

Employee:
- Many-to-many with **Role** (an Employee can have USER, MANAGER, or ADMIN roles).
- One-to-many with **Ticket** as both creator and assignee.
- One-to-many with **Ticket History** as the actor of history entries.
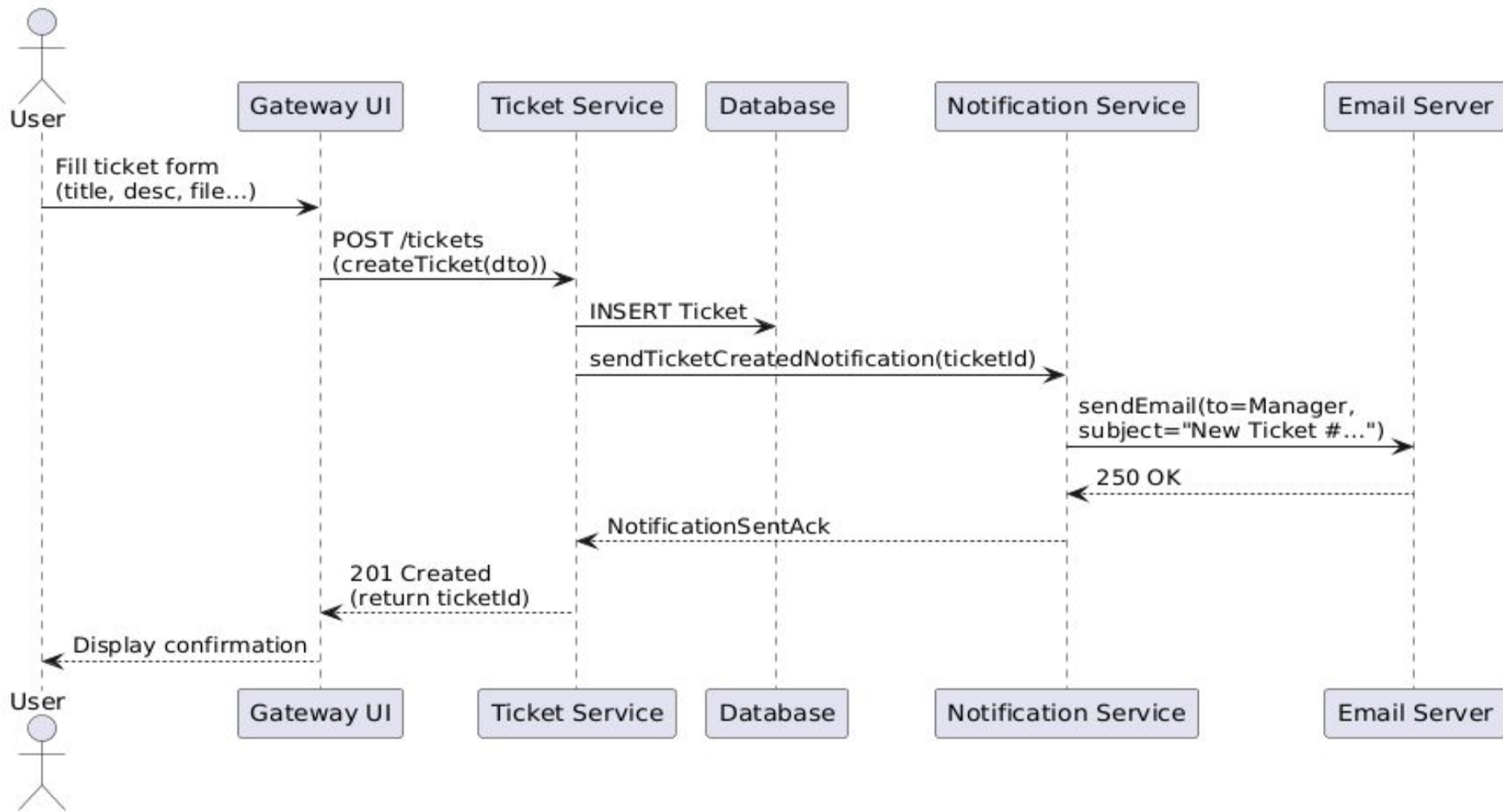
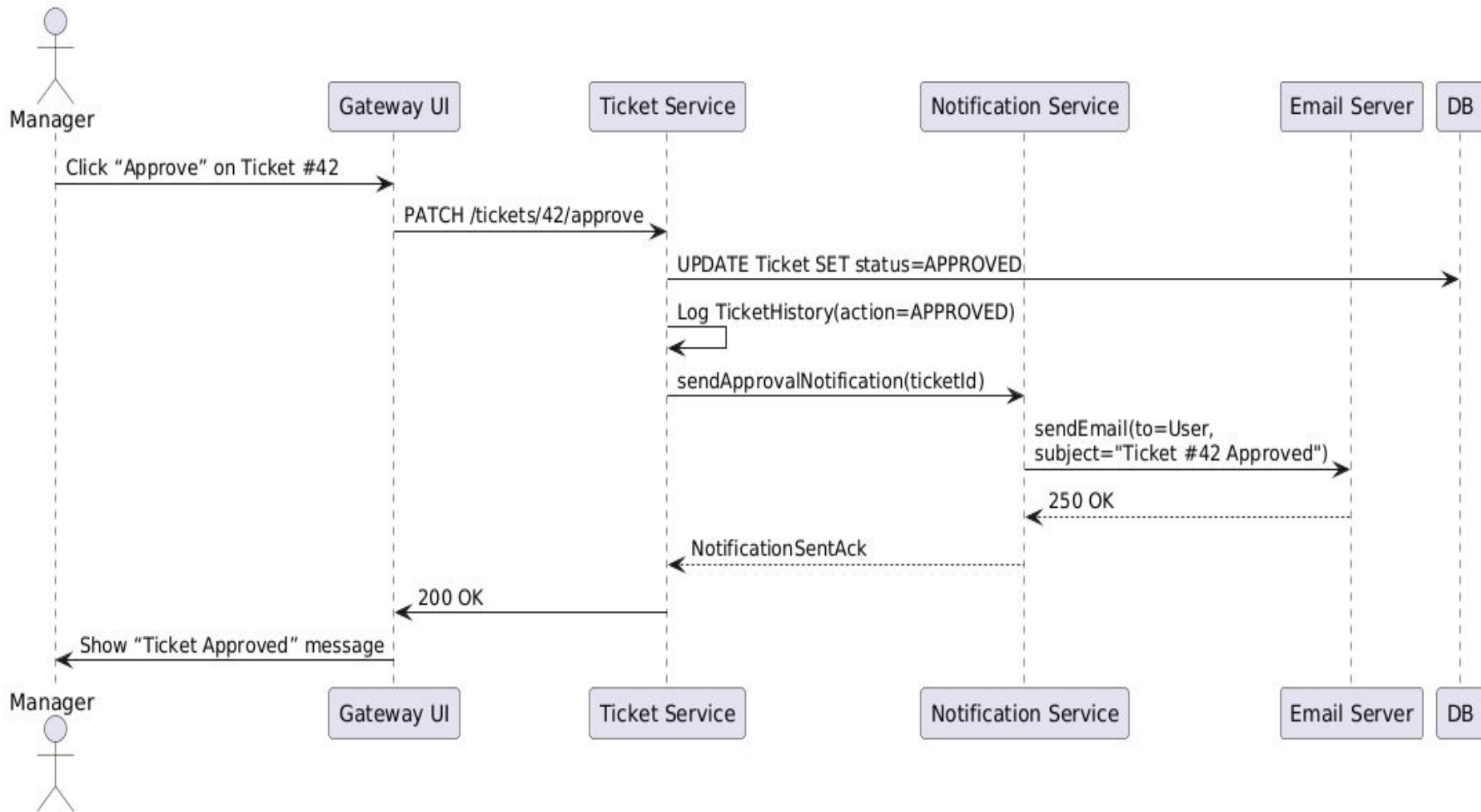**Role**:
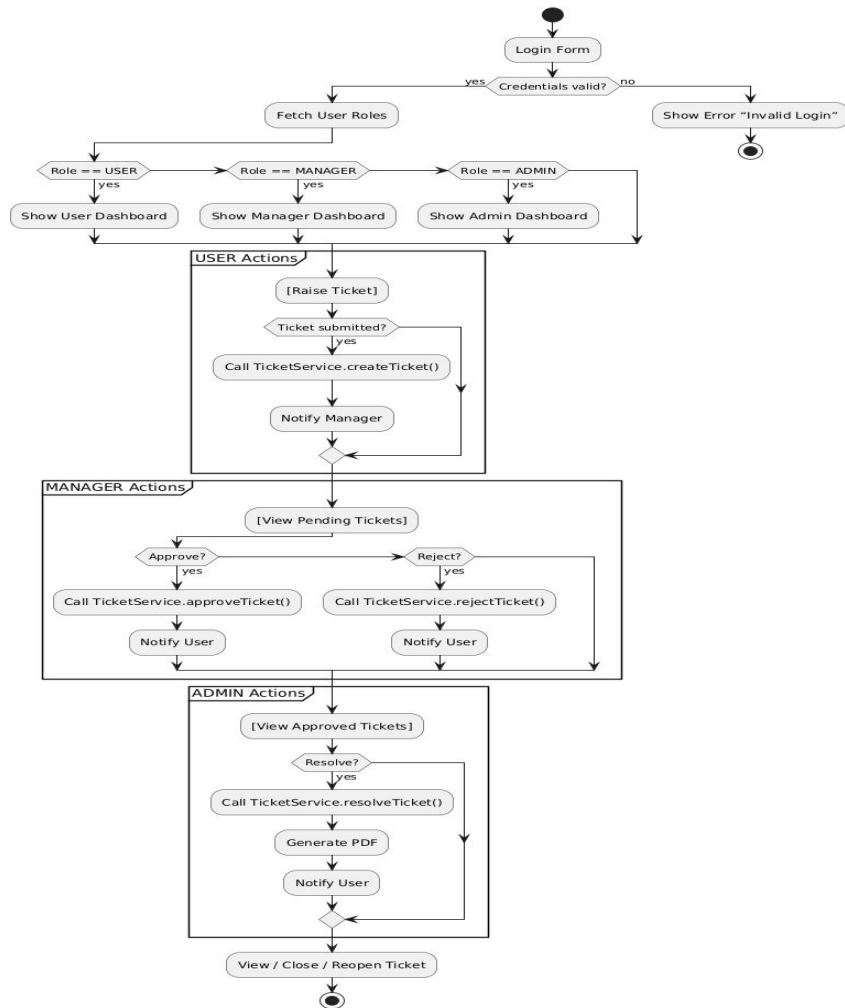- Many-to-many with **Employee**.

Ticket:
- Many-to-one to **Employee** as createdBy (the User who raised it).
- Many-to-one to **Employee** as assignee (the Admin or IT who resolves it).
- One-to-many with **Ticket History** to record every status change.

Ticket History:
- Many-to-one with **Ticket** (which ticket the action belongs to).
- Many-to-one with **Employee** as actionBy.

1. Users, Managers, and Admins all log in and are sent to their own dashboards based on role.

2. **Users** can create new tickets, view their status, and close or reopen them.

3. **Managers** see pending tickets and can approve or reject requests, which sends an email notification.

4. **Admins** handle approved tickets, mark them as resolved, generate a PDF report, and notify the user.

5. A daily scheduler reminds Managers about tickets older than 7 days, and any "Resolved" ticket left open for 5 days is automatically closed.

Register And Login Pages:

Register

Username *

Email *

Password *

Department *

Project *

Manager *

-- Select Manager --

REGISTER

Already have an account? Login

Login

Username

Password

LOG IN

User Dashboard:

User can create ticket, view tickets, view notifications and logout.

Creation Of Ticket:

Use this form to submit a new support request into the Ticketing Gateway System. Once submitted, user will receive an email confirmation, and the User's Manager will be notified to review and approve or reject the user's ticket.

Create New Ticket

Title:

Description:

Priority:

-- Select Priority --

Category:

-- Select Category --

File Attachments:

Choose Files | No file chosen

SUBMIT TICKET   **CANCEL**

← Back To Dashboard

View Tickets Page:

The "Your Tickets" dashboard presents each ticket ID, title, priority, status, and current assignee in a single table. From here you can quickly **View** all details, **Update** its status (close or reopen), or check the full **History** of actions and comments.

Your Tickets

ID	Title	Priority	Status	Assignee	Actions
1	Application crashes when saving user profile	HIGH	**OPEN**	Not Assigned	View Update History
2	Implement two-factor authentication	HIGH	**OPEN**	Not Assigned	View Update History
3	Upgrade database server to latest security patch	HIGH	**OPEN**	Not Assigned	View Update History

View Particular ticket:

Ticket #1: "Application crashes when saving user profile"

Status: OPEN

Priority: HIGH

Category: BUG

Created By: spola1

Assignee: Not yet assigned

Created On: Wed May 28 21:02:07 PDT 2025

Description:

> *After editing profile details and clicking "Save," the app throws a null-pointer exception and closes unexpectedly.*

Update Particular Ticket:

The "Update Ticket" screen displays all current ticket details—status, priority, category, creator, assignee, and creation timestamp—and lets you modify any editable fields. You can attach new files or review the original description to add context. After making changes, click **Save Changes** to submit updates or **Cancel** to return without saving. This form preserves the ticket's audit trail while allowing you to refine its details before moving it along the workflow.

Update Ticket 1: "Application crashes when saving user profile"

Status:
OPEN

Priority:

| HIGH | ⌄ |

Category:

| BUG | ⌄ |

Created By:
spola1

Assignee:

Created On:
Wed May 28 21:02:07 PDT 2025

Add New Attachments:

| Choose Files | No file chosen |

Description:

After editing profile details and clicking "Save," the app throws a null-pointer exception and closes unexpectedly.

Save Changes   Cancel

Manager Dashboard:

The Manager Dashboard provides a personalized landing page for managers as soon as they log in. It greets you by name and confirms your role, then offers three clear, icon-driven options: **View Tickets** to access all pending and in-progress requests, **Notifications** (with a badge showing unread alerts) for new ticket actions and reminders, and **Logout** to end your session securely.

Manager Dashboard

Hi, manager1. You are logged in as **manager**.

View Tickets   Notifications 3   Logout

Manager View tickets:

On the "Tickets to Approve" screen, new submissions first appear as **OPEN** awaiting your initial review. If you reject a ticket and escalate it back to the user for more information, its status changes to **PENDING_FOR_APPROVAL** once the user resubmits, clearly flagging it for re-evaluation. Approving a ticket then moves it to **APPROVED**, indicating your sign-off is complete but assignment to Admin/IT is still pending.

Tickets to Approve

ID	Title	Priority	Status	Assignee	Actions
1	Application crashes when saving user profile	HIGH	**APPROVED**	Not Assigned	View History Assign
2	Implement two-factor authentication	MEDIUM	**OPEN**	Not Assigned	View History
3	Upgrade database server to latest security patch	LOW	**PENDING_FOR_APPROVAL**	Not Assigned	View History

Manager View Ticket:

At the bottom, managers can click **Approve** to greenlight the work or **Reject** if it doesn't align with our current roadmap. On click of **Reject**, managers must provide a reason before the rejection is finalized.

Ticket #2: "Implement two-factor authentication"

Status:	OPEN
Priority:	MEDIUM
Category:	FEATURE_REQUEST
Created By:	spola1
Assignee:	Not yet assigned
Created On:	Wed May 28 21:03:11 PDT 2025

Description:

> *Require users to enter a one-time code sent via SMS or authenticator app when logging in for increased security.*

Approve   Reject

Admin Dashboard:

Once a manager assigns a ticket, the admin logs in and lands on the **Admin Dashboard**. Three large icons let the admin quickly **View Assigned Tickets**, check **Notifications** (with a badge for new alerts), or **Logout**.

Admin Dashboard

Hi, admin1. You are logged in as **admin**.

View Tickets   Notifications   Logout

Admin View Ticket:

The **Tickets to Resolve** table lists every ticket assigned to the admin—whether newly assigned or reopened—showing its ID, title, priority, status, and assignee and actions – view and history.

Tickets to Resolve

ID	Title	Priority	Status	Assignee	Actions
1	Application crashes when saving user profile	HIGH	ASSIGNED	admin1	View History

Admin View Ticket:

This detail view gives the admin three actions—**Resolve**, **Close**, and **Reopen**—to manage the ticket.
Clicking **Resolve** opens a mandatory resolution-comment field that must be filled out before hitting **Submit**.
Close immediately marks the ticket closed, and **Reopen** moves it back into the active queue.

Ticket #1: "Application crashes when saving user profile"

Status: ASSIGNED

Priority: HIGH

Category: BUG

Created By: spola1

Assignee: admin1

Created On: Wed May 28 21:02:07 PDT 2025

Description:

After editing profile details and clicking "Save," the app throws a null-pointer exception and closes unexpectedly.

[Resolve] [Close] [Reopen]

Notifications Dashboard for User, Manager, Admin:

The **Notifications** page shows a real-time, timestamped feed of every key ticket event—creation, approval, rejection, assignment, resolution, and closure—so users, managers, admins always know exactly what's happening.
Each notification clearly states the action taken and when it occurred.
At the bottom, **Back to Dashboard** and **Logout** buttons let you navigate away once you've viewed your updates.

User Notifications

Time: 2025-05-28T21:03:11.504188
Message: You have Created A Ticket with id : 2. Please save it for futher reference.

Time: 2025-05-28T21:04:03.086497
Message: You have Created A Ticket with id : 3. Please save it for futher reference.

Time: 2025-05-28T22:40:01.566498
Message: Ticket 1 was approved by manager1

Time: 2025-05-28T22:41:03.726198
Message: Ticket 3 was rejected by manager1. Please check your email for rejection reason. Further Steps are enclosed in it.

Time: 2025-05-28T22:41:29.903232
Message: Ticket 3 was send for approval to your manager.

Time: 2025-05-28T23:10:21.432829
Message: Ticket 1 was assigned by manager1

Time: 2025-05-28T23:34:34.694234
Message: Ticket 1 was resolved by admin1

Time: 2025-05-28T23:36:30.697182
Message: Ticket 1 was closed by you.

Back to Dashboard   Logout

Ticket History:

The **Ticket History** table is a full audit trail of every lifecycle event—creation, approval, assignment, resolution, and closure—each tagged with who (and their role), when it happened, and any comments.

Rows 1–5 show the flow from spola1 creating the ticket, manager1 approving and assigning it, admin1 resolving it, and finally the user closing it.

This clear, chronological log ensures complete transparency and traceability for every ticket action.

Ticket History

#	ACTION	ACTION BY	ACTION DATE	COMMENTS
1	CREATED	spola1 *(USER)*	2025-05-28 21:02:07	created ticket by user.
2	APPROVED	manager1 *(MANAGER)*	2025-05-28 22:40:01	Ticket 1 was approved by manager1
3	ASSIGNED	manager1 *(MANAGER)*	2025-05-28 23:10:21	Ticket 1 was assigned by manager1
4	RESOLVED	admin1 *(ADMIN)*	2025-05-28 23:34:34	Resolved
5	CLOSED	spola1 *(USER)*	2025-05-28 23:36:30	Ticket 1 was closed by user.

Email Services:

When the ticket is marked **RESOLVED**, the system generates a detailed PDF of the resolution (including timestamps, actions taken, and comments) and attaches it to the closing email sent to the user.
This ensures everyone receives both real-time notifications and a formal, downloadable record of how the issue was handled.

Ticket Resolution Report

Ticket ID: 1
Status: RESOLVED
Message: Ticket 1 was resolved by admin1
Resolved At: 2025-05-28T23:34:34.694234

Ticket History

#	Action	Action By	Action Date	Comments
1	CREATED	spola1	2025-05-29T04:02: 07.957+00:00	created ticket by user.
2	APPROVED	manager1	2025-05-29T05:40: 01.568+00:00	Ticket 1 was approved by manager1
3	ASSIGNED	manager1	2025-05-29T06:10: 21.433+00:00	Ticket 1 was assigned by manager1
4	RESOLVED	admin1	2025-05-29T06:34: 34.695+00:00	Resolved

Feedback Email:

As soon as a ticket is closed, the system automatically sends the user a feedback email—branded from "SynergisticIT"—asking them to rate their experience on a 1–5 scale via clickable links. Each link opens the user's email client with a pre-filled rating message, or they can simply hit "Reply" to type open-ended comments. All submitted ratings and comments are captured in the dashboard to monitor support quality and drive continuous improvement.

Hi,

We'd love your feedback on ticket **1**. Please click a rating below to open your email app:

1 2 3 4 5

Or just hit "Reply" and type your comments.

Thanks and regards,
SynergisticIT

Cron Scheduler:

Every day at 9:00 PM, a scheduled job scans for any tickets still in **OPEN** status that were created over seven days ago and are awaiting manager approval. This daily reminder helps ensure no approval request falls through the delay.

Hi Manager,

The following ticket has been pending your approval for more than 7 days:

Ticket ID: 5
Status: OPEN
Message: Found that ticket with id : 5 is pending_for_approval for > 7 days which was created by spola1. Please approve it.
Detected At: 2025-05-27 21:00:00

Please review and take the necessary action at your earliest convenience.

Thanks and Regards,
SynergisticIT

Cron Scheduler:

Every day at 9:00 AM, a background job scans for tickets that have sat in **RESOLVED** status for more than five days.Any such ticket is automatically moved to **CLOSED**, and an email is sent to the user.This cleanup automation prevents stale tickets from lingering and keeps users informed of the closure.

Hi spola3,

Your ticket has been automatically closed.

Status: CLOSED
Message: Your ticket 11 has been auto-closed after 5 days in RESOLVED status.
Time: 2025-05-28 09:00:00

If you have any questions, please let us know.

Thanks and Regards,
SynergisticIT

You Have Been Logged Out

Thanks for using our services. We hope to see you again soon!

Log In Again

Thank you !