

# Resolve-It Ticketing App Information Technology Department

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## ABSTRACT

In today's organizations, IT problems like system errors, software issues, and network failures are very common. Handling these problems manually takes more time and effort. This research paper presents RESOLVE IT, an IT ticketing application that; Ticket users report problems easily and helps IT staff manage and solve them faster. The system allows users to raise tickets, track their status, and receive updates. It also helps administrators assign tickets properly and monitor work progress. The proposed system reduces paperwork, saves time, and improves overall service quality.

**Keywords:** IT Ticketing System; Help Desk; Issue Tracking; Ticket Management; User Support; Automation.

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## INTRODUCTION

In today's organizations, computers, software, and internet services are used for almost every task. Because of this, IT related problems such as system errors, login issues, slow computers, or network failures happen very often. When these problems are not solved on time, employees are unable to complete their work properly, which affects productivity. Traditionally, users report IT problems through phone calls, emails, or by personally visiting the IT department. These methods are slow, confusing, and sometimes the problem details are not recorded properly.

RESOLVE IT is developed to solve these issues by providing a simple and organized IT ticketing system. It allows users to report their problems online in an easy way. Each problem is saved as a ticket, so it can be tracked until it is resolved. IT staff can view all reported issues in one place and work on them systematically. Admin can monitor the entire process and ensure timely resolution.

This system helps organizations reduce delays, avoid miscommunication, and improve IT support services. RESOLVE IT makes problem reporting easy for users and problem management easy for IT staff, leading to better efficiency and satisfaction.



### Problem Statement

The traditional method of handling IT issues has several drawbacks:

Issues are reported through calls or messages

No proper tracking system

Lack of transparency

Delayed issue resolution

Poor communication

Therefore, an automated IT ticketing system is required to efficiently manage IT support requests

### LITERATURE REVIEW

Many researchers and organizations have studied IT helpdesk and ticketing systems to improve IT support services. Earlier systems mainly depended on emails or manual registers, which caused delays and confusion. Research shows that web-based ticketing systems are more efficient because they store all issues in a digital format.

Studies explain that ticketing systems improve communication between users and IT staff. When users submit tickets online, the problem details are clearly mentioned, which helps staff understand the issue better. Other research highlights that tracking ticket status helps users stay informed and reduces repeated follow-ups.

Some studies also mention that analyzing old tickets helps organizations understand common problems and improve their IT infrastructure. Grouping similar issues helps IT staff solve problems faster and manage workload better.

Overall, literature proves that IT ticketing systems save time, reduce manual work, and improve service quality. These findings support the need for a simple and user-friendly system like RESOLVE IT, which focuses on easy usage rather than complex technical features.

#### Existing System

In the existing system, IT problems are mostly handled manually. Users usually report issues by calling the IT department, sending emails, or speaking directly to staff. This approach has many problems. Sometimes calls are missed, emails are ignored, or details are not recorded properly. There is no fixed system to track which problems are pending or solved.

Because there is no proper record, IT staff may forget some issues or solve them late. Users also do not know the status of their complaints and have to follow up again and again. This causes frustration and wastes time for both users and staff.

Manual systems also increase the workload of IT staff because they need to remember problems or maintain registers. There is no proper way to analyze how many problems occur or how long they take to solve. Due to these limitations, the existing system is slow, unorganized, and inefficient. It does not provide transparency or accountability, which affects overall productivity in the organization.

#### Propose System

The proposed system, RESOLVE IT, is a simple and organized IT ticketing application designed to overcome the problems of the manual system. In this system, users can report their IT problems online using a simple form. Each problem is automatically converted into a ticket with a unique ID.

Users can log in and check the status of their tickets anytime. This removes the need for repeated calls or emails. Admin reviews each ticket and assigns it to the appropriate IT staff member. The staff works on the issue and updates the ticket once the problem is resolved.

The system keeps complete records of all tickets, including solved and pending issues. This helps in tracking performance and identifying common problems. RESOLVE IT improves communication, saves time, and reduces workload.

The proposed system is easy to use, requires minimal training, and provides a smooth experience for users and IT staff. It ensures that every problem is handled properly and on time.

#### System Architecture

The architecture of RESOLVE IT is simple and easy to understand. It is divided into three main parts: User, Support Staff, and Admin. The User module allows users to register, log in, and submit IT problems. Users can also track ticket status and receive updates.

The Support Staff module allows IT staff to view assigned tickets, work on problems, and update their status. This helps staff manage their tasks efficiently. The Admin module controls the entire system. Admin manages users, assigns tickets to staff, and monitors progress. Admin can also view reports and overall system performance.

All data such as user details, tickets, and updates are stored in a central database. This ensures data safety and easy access. The architecture supports smooth communication between all modules and keeps the system organized.



### Methodology

The working process of RESOLVE IT follows a simple step by-step method. First, the user logs into the system using valid credentials. Then the user submits a ticket by describing the problem clearly. The system stores the ticket and generates a unique ticket ID.

Next, the admin reviews the ticket and assigns it to the appropriate IT staff member. The staff member works on the issue and updates the ticket status. Once the problem is solved, the ticket is marked as resolved.

The user receives updates during the process and can check the ticket status anytime. This method ensures transparency and smooth problem handling. It reduces delays and avoids confusion.

### Implementation

RESOLVE IT is implemented as a web-based application with a simple user interface. The design focuses on ease of use so that even non-technical users can use it easily. Users can access the system using a browser.

The system stores all ticket and user information in a database. The backend processes ticket submissions, assignments, and updates. The frontend allows users and staff to interact with the system smoothly.

The implementation ensures reliability, accuracy, and efficiency. The system works well for small and medium-sized organizations and can be expanded in the future.

## RESULTS AND DISCUSSION

After implementing RESOLVE IT, organizations experience many improvements. Problems are resolved faster because tickets are assigned properly. All issues are organized, and nothing is missed.

Communication between users and IT staff improves because status updates are available. Manual workload is reduced, and IT staff can focus more on solving problems. Users feel satisfied because they receive timely responses. Overall, the system performs better than the manual system and improves productivity..

## FUTURE SCOPE

Mobile Application: Allow users to submit and track tickets using smartphones.

Automated Responses: Automatically suggest solutions for common issues.

Analytics Reports: Generate detailed reports to track IT performance and problem patterns.

Integration with Other Tools: Connect with email, chat, or project management tools for better workflow.

These enhancements will further improve efficiency and make IT support even more user-friendly.

## LIMITATIONS OF THE SYSTEM

Although the RESOLVE IT system is useful and improves IT support management, it has some limitations. One major limitation is that the system requires an internet connection. If the network is down or slow, users may not be able to submit tickets or check their status. This can delay problem reporting in some situations.

Another limitation is the need for initial training. Users and IT staff must learn how to use the system properly. Without basic training, some users may face difficulty while submitting tickets or understanding system features. Also, if users do not provide clear and correct problem details, the resolution process may take more time.

The basic version of RESOLVE IT does not include advanced features such as automatic problem detection or instant solutions. All problems still require manual checking by IT staff. In addition, system maintenance is required to keep the application updated and secure.

Despite these limitations, most of them can be reduced in future versions by adding offline support, better user guidance, and more automation features. Overall, the limitations are minor compared to the benefits provided by the system.

### Security and Data Management

Security and data management are very important parts of the RESOLVE IT system. Since the system stores user details and IT problem information, proper protection is necessary. RESOLVE IT allows only registered users to access the system. Each user must log in using a username and password, which helps prevent unauthorized access. Different access levels are provided for users, support staff, and admin, ensuring that sensitive information is viewed only by authorized persons.

All ticket details, user information, and status updates are stored safely in a centralized database. This helps in maintaining accurate records and prevents data loss. Regular data backups are maintained so that information can be recovered in case of system failure. Admin has full control over data management, including user permissions and ticket monitoring.

Proper data management also helps in organizing past and present tickets. Old tickets can be reviewed to understand common problems and improve future services. The system ensures data consistency and avoids duplication of records. Overall, RESOLVE IT provides a secure and well-managed environment that protects user data, maintains system reliability, and builds trust among users and organizations.

### Working of Resolve-IT Ticketing Application

This section explains the working of each major screen (module) of the Resolve-IT Android-based IT support ticketing application. The application is designed with a simple user interface and role based access to efficiently manage IT issues within an organization.

#### 1. Login Module

The login module provides secure access to the application. When the user launches the app, the login screen is displayed. The user enters valid login credentials to access the system. The system verifies the entered details and allows access only to authorized users. This module ensures security and prevents unauthorized usage of the application.



#### 2. Role Selection Module

After successful login, the role selection module is displayed. In this module, the user selects the type of role, either Admin or Employee.

Based on the selected role, the application grants different permissions and loads the appropriate dashboard. This module implements role-based access control and ensures proper separation of responsibilities.

### **3. Dashboard Module**

The dashboard module acts as the main control screen of the application. It provides an overview of available features and quick navigation options.

For employees, the dashboard displays options to create tickets and view ticket status.

For admins, the dashboard displays ticket statistics, open tickets, and resolved tickets. This module improves usability by allowing users to access required features easily.



### **4. Create Ticket Module**

The create ticket module allows employees to report IT-related problems. The user enters the issue title, description, and priority level.

After submitting the form, the ticket information is stored in the Room database with the status marked as Open. This module ensures that all issues are properly recorded and can be tracked until resolution.

### **5. Open Tickets Module**

The open tickets module displays all tickets that are currently unresolved. The data is fetched from the database based on the ticket status.

Admins can view detailed information about each ticket and take necessary actions. This module helps in identifying pending issues and managing workload effectively.

### **6. Resolve Ticket Module**

The resolve ticket module is used by the admin to close reported issues. Once a problem is solved, the admin updates the ticket status from Open to Resolved.

The resolved ticket is removed from the open ticket list and moved to the resolved tickets section. This module maintains proper issue lifecycle management.

### **7. Resolved Tickets Module**

The resolved tickets module displays all successfully solved issues. This module serves as a record of completed work. Users can view previously resolved tickets for reference purposes. Maintaining a history of solved tickets helps in future troubleshooting and system analysis.

### **8. AI-Based Ticket Selection Module**

The AI-based selection module assists users in categorizing IT issues correctly during ticket creation.

Based on the selected problem type such as network, software, or hardware, the system suggests the appropriate category.

This intelligent selection reduces incorrect ticket assignment and helps in faster issue resolution.



### **CONCLUSION**

RESOLVE IT is a simple and effective IT ticketing system that helps organizations manage IT problems efficiently. It replaces manual methods with a digital solution that is easy to use. The system saves time, reduces workload, improves communication, and increases user satisfaction.

By keeping proper records and tracking issues, RESOLVE IT ensures better IT support services. It is suitable for many organizations and can be enhanced in the future.

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