Airport Management System (AMS) User Manual

Version 1.0
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1. Introduction

Welcome to the Airport Management System (AMS) User Manual. This manual is designed to guide users through the features and functionalities of the AMS website, with an upcoming mobile application to be developed. The AMS website is tailored to improve airport operations, enhance passenger experiences, and streamline overall efficiency.

2. System Requirements

To use the AMS website, ensure your system meets the following requirements:

- **Operating System:** Windows 10 or later, Linux Ubuntu 18.04 or later
- **Web Browser:** Latest version of Chrome, or Edge
- **Internet Connection:** Stable broadband connection with a minimum speed of 5 Mbps
- **Hardware:** Minimum 4GB RAM, 1GHz processor, and 500MB free disk space
- **Additional Software:** JavaScript enabled in the browser, PDF reader for reports

Note: A mobile application for AMS is currently in development and will provide similar functionalities for mobile users.

3. Getting Started

3.1 User Registration

To access the AMS website, all users must register an account.

1. **Navigate to the Registration Page:** Visit the AMS website and go to the registration page.
2. **Enter Required Information:** Provide your full name, email address, contact number, and select your user role (e.g., Administrator, Airline Representative, Ground Staff).
3. **Create a Password:** Choose a strong password and confirm it.
4. **Submit Registration:** Click "Register" to submit your information. A confirmation email with a verification link will be sent.
5. **Verify Email:** Click the verification link to activate your account.

3.2 Logging In

To log in to the AMS website:

1. **Open the Login Page:** Go to the AMS website login page.
2. **Enter Credentials:** Input your registered email address and password.
3. **Click "Login":** Access your AMS dashboard.

If you forget your password, use the "Forgot Password?" link to reset it.

3.3 User Roles and Permissions

The AMS website assigns permissions based on user roles to ensure data security:

- **Administrator:** Full access to all features, including user management, system settings, and data backup.
- **Airline Representative:** Access to flight management, runway and parking slot booking, and passenger handling.
- **Ground Staff:** Access to baggage handling, emergency response, and duty-free shop operations.
- **Security Staff:** Limited access to passenger management and security protocols.
- **Passenger:** Access to personal flight information and services related to their journey.
- **Companion:** Access to flight and baggage information for passengers they are accompanying.

4. Core Features

4.1 Runway and Parking Slot Management

Manage runway and parking slot bookings through the AMS website.

Booking a Slot:

1. **Navigate to Slot Management:** Click "Runway & Parking Slot Management" on the dashboard.
2. **Select a Slot:** Choose the desired date, time, and slot type.
3. **Enter Flight Details:** Input flight number, aircraft type, and duration of use.
4. **Submit Booking:** Click "Book Slot" to reserve the slot.

Viewing and Modifying Bookings:

- **View Bookings:** Click "View Schedule" to see all bookings.
- **Modify Bookings:** Select a booking, click "Edit," make adjustments, and click "Save."
- **Cancel Bookings:** Select and click "Cancel" to remove the booking.

4.2 Flight Information Management

Access real-time updates on flights.

Accessing Flight Information:

1. **Go to Flight Information:** Click "Flight Information Management" on the dashboard.
2. **Search Flights:** Use the search bar to find flights by number, airline, or destination.
3. **View Details:** Click a flight to view departure/arrival times, gate assignments, and status changes.

Updating Flight Information:

- **Automatic Updates:** The system updates flight status automatically.
- **Manual Updates:** Authorized users can manually update flight details.

4.3 Passenger Management

Streamline passenger check-in, boarding, and security.

Check-In Process:

1. **Navigate to Passenger Management:** Click "Passenger Management" on the dashboard.
2. **Search Passenger:** Locate by name or booking reference.
3. **Check-In:** Select and click "Check-In" to issue a boarding pass and assign a seat.

Security and Boarding:

- **Security Clearance:** Verify identity and boarding pass.
- **Boarding:** Direct passengers to the gate and update boarding status.

4.4 Baggage Handling

Efficiently manage baggage check-in, tracking, and retrieval.

Managing Baggage:

1. **Baggage Check-In:** Scan baggage during passenger check-in and assign it to the booking.
2. **Track Baggage:** Use "Baggage Tracking" to view the status and location of baggage.
3. **Retrieve Baggage:** Select and click "Retrieve" or "Reroute" as needed.

4.5 Emergency Response Management

Coordinate responses to emergencies effectively.

Activating Emergency Protocols:

1. **Emergency Dashboard:** Click "Emergency Response" on the dashboard.
2. **Select Emergency Type:** Choose from medical, security, or natural disaster.
3. **Activate Protocol:** Click "Activate" to initiate the protocol.

Emergency Communication:

- **Notify Staff:** Notifications are sent to involved staff members.
- **Coordinate with External Agencies:** Use communication tools to interact with fire, police, and medical services.

4.6 Duty-Free Shop Management

Manage duty-free shop operations and inventory.

Managing Shops:

1. **Go to Shop Management:** Click "Duty-Free Shop Management" on the dashboard.
2. **View Shops:** List all shops and their details.
3. **Manage Leases:** View and manage lease details and payments.

Tracking Sales and Inventory:

- **Sales Performance:** View sales reports and revenue.
- **Inventory Management:** Check stock levels and order products.

4.7 User Access and Security

Control user access and maintain system security.

Managing User Access:

1. **User Roles:** Assign roles during registration.
2. **Modify Permissions:** Click "User Management" under "System Administration" to change roles and permissions.

Security Features:

- **Two-Factor Authentication:** Enable for added security.
- **Audit Logs:** Monitor user activity and potential issues.

5. Advanced Features

5.1 Analytics and Reporting

Generate reports and analytics to gain operational insights.

Generating Reports:

1. **Access Reporting:** Click "Analytics & Reporting" on the dashboard.
2. **Select Report Type:** Choose from flight performance, passenger demographics, etc.
3. **Generate Report:** Click "Generate" and export in PDF or Excel.

5.2 Mobile Application (In Development)

An upcoming mobile app will extend AMS functionalities for mobile users.

Features to Expect:

- **Real-Time Notifications:** Updates on flight statuses and operational changes.
- **Remote Management:** Manage bookings, check-ins, and other tasks from mobile.
- **Quick Access:** Direct access to frequently used features.

5.3 Automated Check-In and Boarding

Automate check-in and boarding processes for efficiency.

Automated Check-In:

1. **Self-Service Kiosks:** Available for passenger check-in and boarding pass printing.
2. **Mobile Check-In:** Use the AMS mobile app for check-in.

Automated Boarding Gates:

- **Facial Recognition:** Verify passenger identity at automated gates.
- **Boarding Pass Scanners:** Scan boarding passes at the gate.

6. Passenger and Companion Access

6.1 Accessing Flight Information

Passengers and companions can log in to view flight-specific details.

1. **Login:** Access the AMS website with booking reference or credentials.
2. **View Flight Details:** Check flight status, times, and gate information.

6.2 Tracking Flights and Baggage

Both passengers and companions can track flights and baggage.

Flight Tracking:

1. **Access Tracking:** Log in to the AMS website.
2. **Track Flight:** Enter the flight number for real-time updates on location and arrival time.

Baggage Tracking:

1. **Access Baggage Tracking:** Navigate to "Baggage Tracking."
2. **Track Baggage:** Enter the baggage tag number for current status and location updates.

7. System Administration

7.1 User Management

Administrators manage user accounts, roles, and permissions.

Adding New Users:

1. **Go to User Management:** Click "User Management" under "System Administration."
2. **Add User:** Click "Add New User," provide details, and assign roles.
3. **Set Permissions:** Assign permissions based on roles.
4. **Save Changes:** Click "Save" to create the user account.

7.2 System Settings

Customize system settings for operational needs.

Configuring Settings:

1. **Access Settings:** Click "System Settings" under "System Administration."
2. **Modify Settings:** Adjust notifications, data retention, and themes.
3. **Save Changes:** Click "Save" to apply.

7.3 Data Backup and Restore

Regularly back up and restore system data.

Backing Up Data:

1. **Access Backup Settings:** Click "Data Backup" under "System Administration."
2. **Initiate Backup:** Click "Backup Now" and choose storage location.
3. **Schedule Backups:** Set automatic backup intervals.

Restoring Data:

- **Access Restore Options:** Click "Restore" under "Data Backup."
- **Select Backup File:** Choose and restore from the selected backup.

8. Troubleshooting

8.1 Common Issues

Solutions to frequent problems.

- **Login Issues:** Verify credentials and check internet connection.

- **Slow Performance:** Clear browser cache or try a different browser.
- **System Errors:** Restart browser or device and try again.

8.2 Contacting Support

For additional assistance:

- **Email:** support@ams.com
- **Phone:** +91 1234567890

9. Glossary

- **AMS:** Airport Management System
- **API:** Application Programming Interface
- **Kiosk:** Self-service terminal for check-in and boarding
- **Two-Factor Authentication:** Security process requiring two forms of identification

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