# **API Routes & Access Summary - Rwanda ERP Payroll System**

This document provides a consolidated overview of the REST API endpoints, their HTTP methods, and the required user roles for access.

****Base URL****: http://localhost:8080/api

****Authentication****: All protected routes require a JWT (JSON Web Token) in the Authorization header as Bearer <YOUR\_JWT\_TOKEN>.

## **1. Authentication & User Registration (**/api/auth**)**

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| --- | --- | --- | --- | --- |
| ****Endpoint**** | ****Method**** | ****Description**** | ****Access**** | ****Notes**** |
| /api/auth/register | POST | Registers a new employee/user. | PUBLIC | For initial user creation (e.g., admin). |
| /api/auth/login | POST | Authenticates a user and returns a JWT token. | PUBLIC | Obtain JWT for subsequent requests. |

## **2. Employee Management (**/api/employees**)**

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| --- | --- | --- | --- | --- |
| ****Endpoint**** | ****Method**** | ****Description**** | ****Access**** | ****Notes**** |
| /api/employees | POST | Creates a new employee record. | ROLE\_ADMIN, ROLE\_MANAGER | Requires EmployeeRequest body. |
| /api/employees | GET | Retrieves a list of all employees. | ROLE\_ADMIN, ROLE\_MANAGER |  |
| /api/employees/{id} | GET | Retrieves a single employee by ID. | ROLE\_ADMIN, ROLE\_MANAGER, ROLE\_EMPLOYEE | An employee can only retrieve their own details (logic in service/security config). |
| /api/employees/code/{code} | GET | Retrieves a single employee by code. | ROLE\_ADMIN, ROLE\_MANAGER |  |
| /api/employees/{id} | PUT | Updates an existing employee record by ID. | ROLE\_ADMIN, ROLE\_MANAGER | Requires EmployeeRequest body. |
| /api/employees/{id} | DELETE | Soft deletes an employee (sets status to DISABLED). | ROLE\_ADMIN, ROLE\_MANAGER |  |

## **3. Employment Management (**/api/employments**)**

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| --- | --- | --- | --- | --- |
| ****Endpoint**** | ****Method**** | ****Description**** | ****Access**** | ****Notes**** |
| /api/employments | POST | Creates a new employment record for an employee. | ROLE\_ADMIN, ROLE\_MANAGER | Ensures only one ACTIVE employment per employee. |
| /api/employments | GET | Retrieves a list of all employment records. | ROLE\_ADMIN, ROLE\_MANAGER |  |
| /api/employments/{id} | GET | Retrieves a single employment record by ID. | ROLE\_ADMIN, ROLE\_MANAGER, ROLE\_EMPLOYEE | An employee can only retrieve their own employment details (logic in service/security config). |
| /api/employments/{id} | PUT | Updates an existing employment record by ID. | ROLE\_ADMIN, ROLE\_MANAGER |  |
| /api/employments/{id} | DELETE | Deletes an employment record by ID. | ROLE\_ADMIN, ROLE\_MANAGER | Hard delete. |

## **4. Deduction Management (**/api/deductions**)**

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| --- | --- | --- | --- | --- |
| ****Endpoint**** | ****Method**** | ****Description**** | ****Access**** | ****Notes**** |
| /api/deductions | POST | Creates a new deduction type and percentage. | ROLE\_ADMIN, ROLE\_MANAGER |  |
| /api/deductions | GET | Retrieves a list of all defined deductions. | ROLE\_ADMIN, ROLE\_MANAGER |  |
| /api/deductions/{id} | GET | Retrieves a single deduction by ID. | ROLE\_ADMIN, ROLE\_MANAGER |  |
| /api/deductions/{id} | PUT | Updates an existing deduction by ID. | ROLE\_ADMIN, ROLE\_MANAGER |  |
| /api/deductions/{id} | DELETE | Deletes a deduction by ID. | ROLE\_ADMIN, ROLE\_MANAGER |  |

## **5. Payslip Management (**/api/payslips**)**

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| --- | --- | --- | --- | --- |
| ****Endpoint**** | ****Method**** | ****Description**** | ****Access**** | ****Notes**** |
| /api/payslips/generate | POST | Generates payslips for all active employees for a given month/year. | ROLE\_ADMIN, ROLE\_MANAGER | Requires PayslipGenerationRequest (month, year). Prevents duplicate generation for already approved payrolls. |
| /api/payslips/approve | PUT | Approves pending payslips for a given month/year. | ROLE\_ADMIN, ROLE\_MANAGER | Requires PayslipGenerationRequest (month, year). Changes payslip status to PAID and triggers message generation. |
| /api/payslips/{id} | GET | Retrieves a single payslip by ID. | ROLE\_ADMIN, ROLE\_MANAGER, ROLE\_EMPLOYEE | An employee can only retrieve their own payslips (logic in service/security config). |
| /api/payslips/employee/{employeeId} | GET | Retrieves all payslips for a specific employee. | ROLE\_ADMIN, ROLE\_MANAGER, ROLE\_EMPLOYEE | An employee can only retrieve their own payslips (logic in service/security config). |
| /api/payslips | GET | Retrieves all payslips for a specified month and year. | ROLE\_ADMIN, ROLE\_MANAGER | Requires month and year as query parameters (e.g., /api/payslips?month=5&year=2025). |

## **6. Message Viewing (**/api/messages**)**

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| ****Endpoint**** | ****Method**** | ****Description**** | ****Access**** | ****Notes**** |
| /api/messages/{id} | GET | Retrieves a single message by ID. | ROLE\_ADMIN, ROLE\_MANAGER, ROLE\_EMPLOYEE | An employee can only retrieve their own messages (logic in service/security config). |
| /api/messages/employee/{employeeId} | GET | Retrieves all messages for a specific employee. | ROLE\_ADMIN, ROLE\_MANAGER, ROLE\_EMPLOYEE | An employee can only retrieve their own messages (logic in service/security config). Messages are system-generated (e.g., after payslip approval), no direct creation/update/delete API for messages. |