

Core Modules (Phase 1) *Focus: Essential daily-use features for employees, managers, and admins.*

1. Shift & Roster Management

- Shift Definition: Admin creates shifts (start/end times, breaks, grace periods).
- Roster Assignment: Assign shifts to employees/teams (weekly/monthly).
- Shift Swap: Employees request swaps (manager approval).
- Shift Calendar: Visual schedule (incl. holidays, leaves).
- Validation: Attendance auto-validated against assigned shifts.

2. Employee Self-Service (ESS)

- Profile Updates: Employees edit non-sensitive fields (address, emergency contact).
- Document Downloads: Payslips, tax forms, leave balance.
- Self-Help: View attendance history, tasks, performance reviews.

3. Analytics & Reporting

- Reports:
 - Attendance (late arrivals, overtime).
 - Leave (balances, trends).
 - Task completion rates.
 - Appeals (missed tasks/auto-approvals).
- Export: CSV, PDF, Excel.
- Dashboards:
 - Admin: Workspace health, SLA violations.
 - Manager: Team performance.

4. Notification & Communication System

- Providers: Email, WhatsApp (Twilio), Push (workspace-specific).
- Triggers:
 - Leave approval/rejection.
 - Task deadlines/appeals.
 - Attendance anomalies.
- SLA Alerts: 48h countdown for appeals/auto-approvals.

5. User Profiles

- Tabs:
 - Personal (name, DOB, contact).
 - Employment (role, department, manager).
 - Statutory (PAN, Aadhaar).
 - Documents (ID proofs, contracts).

- Exit (resignation date, replacement mapping).
- Auto-Inactivation: On last working day.

6. Attendance Management

- Check-In/Out: GPS + selfie (200 KB optimized).
- Anti-Fraud: Geo-fencing, device ID validation.
- Calendar View: Work hours, shifts, holidays, leaves.
- Manual Corrections: Admin/manager approval for edits.

7. User Management

- Role Assignment: Admin, Manager, Employee (per workspace).
- Team Mapping: Manager ↔ Employees.
- Bulk Actions: Import/export users via CSV.

8. Leave Management

- Types: Annual, sick, casual, unpaid.
- Workflow: Employee → Manager → Admin (auto-approve after 48h).
- Balance Tracking: Real-time updates.
- Holiday Sync: Excludes workspace holidays.

9. Task & Performance Management

- Task Creation: Admin/Manager assigns (deadline, attachments).
- Submission: Employees mark progress (to-do → in-progress → done).
- Review: Manager rates (base, quality, bonus points, remarks).
- Appeal System:
 - Missed tasks: Employee appeals within 48h.
 - Auto-approve if no action.

Security Modules (Phase 1 & 2)

1. Authentication & Access Control

- Password Reset: Email/WhatsApp OTP for all roles.
- 2FA: Optional for Admin/Super Admin (TOTP apps).
- Session Management: Auto-logout after inactivity, login history logs.

2. Data Security

- Encryption: AES-256 for sensitive data (bank details, IDs).
- Role-Based Access: Workspace isolation (data invisible across workspaces).
- Audit Logs: Track all CRUD operations (user, timestamp, action).

Advanced Modules (Phase 2)

1. Payroll Management

- Salary Structure: Basic, HRA, allowances, deductions.
- Auto-Calculation: Attendance + leaves → payroll.
- Compliance: Workspace-specific tax rules (e.g., PF, ESI).
- Payslips: PDF generation (password-protected).

2. Expense Management

- Claims: Employees submit (receipts, category, amount).
- Approval: Manager → Admin (multi-level).
- Reimbursement: Bank transfer integration (optional).
- Analytics: Category-wise spending reports.

3. Recruitment (ATS)

- Requisitions: Manager raises → Admin approves.
- Pipeline: Applied → Screening → Interview → Hired/Rejected.
- Interview Scheduling: Calendar integration (Google/Outlook).
- Feedback: Interviewers submit scores/remarks.

Future-Proofing Additions

1. WhatsApp & OTP Integration

- Library: Twilio (or open-source alternatives like WATI).
- Features:
 - OTP for login/password reset.
 - Notifications (leave approval, task reminders).

2. Document Management

- Storage: Secure cloud (AWS S3, Google Drive API).
- Versioning: Track changes to contracts/policies.
- Permissions: Role-based access (e.g., only HR can view bank details).

3. Mobile App (React Native/Flutter)

- Features:
 - Attendance check-in/out.
 - Leave/task requests.
 - Push notifications.

4. AI & Analytics

- Insights: Attrition risk, overtime trends.
- Chatbot: HR FAQ bot (WhatsApp/in-app).

Development Phases Summary

Phase	Focus	Modules
Phase 1	Core HRMS	Attendance, Leave, Tasks, ESS, Reports, Notifications, User Management
Phase 2	Advanced & Enterprise	Payroll, Expense, ATS, WhatsApp/OTP, 2FA, Document Management
Future	Scalability & AI	Mobile App, AI Insights, Chatbot, Advanced Analytics

Sree-HRMS – Full Project Specification (Detailed Document) *(Phase-Wise, Role-Based, Workflow-Oriented)*

PHASE 1 – Core Operational HRMS

1. User Management (Core Foundation) - Actors: Super Admin → Admin → Manager → Employee

1.1 User Roles & Hierarchy

- **Super Admin** → Access to all workspaces, system health, DB configs, module toggles.
- **Admin** → Access only to their workspace. Full control of all modules within that workspace.
- **Manager** → Approves tasks, leaves, attendance corrections, manages direct reportees.
- **Employee** → Access to self-service, task submissions, attendance, leave.

1.2 User Creation & Lifecycle

- Super Admin creates Admins.
- Admin creates Managers.
- Manager creates Employees.
- Each creation flow:
 - Mandatory fields (Name, Email, Mobile, Role, Workspace assignment).
 - Email uniqueness enforced across all workspaces.
 - Auto-generated Employee ID.
- **Exit workflow:**
 - "Last Working Day" entry → system auto-marks inactive.
 - History retained (reports, payroll, logs).

1.3 Password Management

- Password reset available at **all roles**.
- OTP-based reset (email or WhatsApp OTP if enabled).
- Force-reset flag for first login.

2. Workspace & Configuration Management (Actors: Super Admin)

- **Workspace Creation**
 - Fields: Name, Logo, Notification Email, Notification Phone, Notification Provider (Email / WhatsApp / Push).
 - Working Days (Mon-Sun), Shifts (default + custom), Holiday list import (.ICS or manual).
 - Leave Types: dynamic (Casual, Sick, Earned with default days).
 - Module Toggles: Attendance, Leave, Task, Expense, Payroll, Recruitment, Performance, Notifications.
- **Workspace-Specific Notifications**
 - Each workspace uses **its own triggering email ID + phone**.
 - Configurable provider per workspace: Gmail, SendGrid, Twilio, Open Source WhatsApp.
 - Test button for validation.

3. Attendance Management (Actors: Employee, Manager, Admin)

3.1 Punch In/Out

- Employee clicks Punch In → camera preview + GPS → compressed selfie ≤ 200 KB uploaded.
- Punch Out requires Punch In.
- Stored: Timestamp, GPS coords, Selfie URL, device type.

3.2 Attendance Calendar

- Employee → Calendar view with:
 - Working hours (based on shift),
 - Status (Present/Absent/Leave/Holiday),
 - Total hours worked,
 - Punch in/out time.
- Manager/Admin → team/workspace-level calendars.

3.3 Attendance Corrections

- Employee → Request regularization (reason + attachment).
- Manager → Approve/Reject (within 48h, else → auto-approve).

4. Leave Management - Actors: Employee → Manager → Admin

- **Employee:** Apply leave → Date range, Type, Reason, Attachment.
- **Manager:** Approve/Reject.
- **Admin:** Secondary approval if escalated.
- **System:** Auto-approve after 48h.
- Holidays auto-excluded.

5. Task & Performance Management- Actors: Manager → Employee → Manager/Admin

5.1 Task Creation

- Fields: Task Name, Description, Objectives, Start Date, End Date, Assign To (Employee/Team).
- Admin can assign tasks to Managers or Employees.
- Manager can assign tasks to Employees.

5.2 Task Submission (Employee)

- Upload: Report (text, file ≤ 5 MB).
- If late → base points = 0, only quality/bonus allowed.

5.3 Task Review (Manager/Admin)

- Review Panel includes:

- Submission (inline viewer or open in Word/PDF/Excel externally).
- Base points (auto).
- Quality points (0–5, mandatory remarks if <3).
- Bonus points (0–5, mandatory remarks).
- Improvements text box.
- Approve/Reject button.

5.4 Appeals System

- If missed: Employee → Raise Appeal (reason + attachment).
- Manager → Approve/Reject.
- Escalation: Admin after 48h.
- Auto-approve if Admin also inactive.

5.5 Performance Formula

- Workspace-configurable cycle: Daily / Weekly / Monthly.
- Points Calculation:
 - On-time submission → 5 base pts.
 - Late submission → 0 base pts.
 - Quality score → 0–5.
 - Bonus → 0–5.
- Rating Buckets:
 - <100% target → Worst
 - 100% → Good
 - 101–125% → Better
 - 125% → Best

6. Notifications & Communications

- Trigger events: leave requests, approvals, task assignments, appeals, auto-approvals, payroll.
- Providers: Email, WhatsApp, Push (workspace-configurable).
- SLA reminders: “Leave pending 24h”, “Task pending 12h”, etc.
- Logs: Each notification → audit entry with delivery status.

7. Analytics & Reporting

- Reports:
 - Attendance, Leave, Tasks, Performance, Appeals, Audit Logs.
- Filters: Workspace, Team, Employee, Date range.
- Exports: CSV, PDF.
- Audit Log of downloads.

8. Employee Self-Service (ESS)

- Profile update (limited fields: contact, address).
- Download payslips, attendance, leave history.
- View tasks & performance.
- Apply leave, submit tasks, raise appeals.

9. Super Admin – System Health Panel

- Database metrics (active workspaces, user counts).
- Cron status (auto-penalty, performance cycles, notifications).
- Audit logs (view + download).
- Module toggle history.

PHASE 2 – Extended Modules

1. Payroll Management

- Salary structure setup per employee.
- Auto-calc from attendance + leave + shifts.
- Payslip generation.
- Admin simulation → approve → finalize.

2. Expense Management

- Employee submits claim (category, amount, receipt).
- Manager approval → Admin reimbursement.
- Expense analytics.

3. Recruitment (ATS)


- Manager raises manpower requests.
- Admin manages the candidate pipeline.
- Interview feedback system.
- Offer letter generation.

4. WhatsApp & OTP Security (Future Proofing)

- OTP login via WhatsApp/Twilio.
- Two-Factor Authentication for Admins.
- Multi-channel notifications.

Checks – Covered Features

- ✓ User Mgmt + Roles + Exit workflow
- ✓ Attendance (GPS + Selfie + Calendar)
- ✓ Leave (Approval + Auto-Approval + Escalation)
- ✓ Task (Creation + Review + Appeals + Points + Ratings)
- ✓ Workspace Configs (Notification Email/Phone/Provider + Modules ON/OFF)
- ✓ Reports + Audit Logs + Notifications
- ✓ System Health + Password Reset
- ✓ Phase 2 (Payroll, Expense, Recruitment, WhatsApp/OTP)

Perfect  — let's turn the detailed project spec into a **Functional Requirements Document (FRD)**.
This will be structured in a **table format** with:

- **Actor** (who performs the action)
- **Action** (what they do)
- **System Behavior / Workflow** (how the system responds)
- **Validation / Rules** (checks, SLA rules, constraints)

Sree-HRMS Functional Requirements Document (FRD) Phase 1 – Core Modules

1. User Management

Actor	Action	System Behavior / Workflow	Validation / Rules
Super Admin	Create Workspace	Creates new workspace with modules, holidays, shifts, notification configs	Workspace name unique; required: email, phone, provider
Admin	Create Manager/Employee	Adds new user under workspace with role, profile details	Unique email, auto-generated Employee ID
Manager	Assign Employee	Maps employees to team	One employee can belong to only one primary manager
Admin	Mark Exit	Set last working day → system auto-inactivates	Profile stays read-only, data preserved
All	Reset Password	Initiates OTP-based reset	OTP sent via email/WhatsApp, expires in 5 min

2. Workspace Config & Notifications

Actor	Action	System Behavior / Workflow	Validation / Rules
Super Admin	Toggle Modules	Enables/disables attendance, payroll, recruitment, etc.	Reflects in dynamic sidebar per role
Admin	Configure Notifications	Set workspace email/phone, provider (SMTP, WhatsApp, Push)	Each workspace must have at least one valid provider
Admin	Test Config	Sends test notification to validate setup	Success/failure logged in audit log

3. Attendance Management

Actor	Action	System Behavior / Workflow	Validation / Rules
Employee	Punch In	Capture timestamp, GPS, selfie	Selfie ≤ 200 KB; within assigned shift hours
Employee	Punch Out	Capture exit time	Cannot punch out before punch in

Employee	Request Correction	Submit reason + attachment	Auto-escalates to manager
Manager	Approve/Reject Correction	Updates attendance record	Must act within 48h, else auto-approve
Employee	View Calendar	Calendar shows work hrs, leave, holiday	Auto-calculated worked hours

4. Leave Management

Actor	Action	System Behavior / Workflow	Validation / Rules
Employee	Apply Leave	Submit type, dates, reason, file	Cannot overlap with existing leave
Manager	Approve/Reject Leave	Updates leave balance	SLA: 48h → auto-approve
Admin	Override Decision	Can force approve/reject	Logged in audit trail
System	Auto-Approve	Leave auto-approved if SLA missed	Notification sent

5. Task & Performance Management

Actor	Action	System Behavior / Workflow	Validation / Rules
Admin/Manager	Create Task	Define task (name, desc, objectives, start/end dates, assignee)	Mandatory: name, dates, assignee
Employee	Submit Task	Upload report/file (≤5 MB), remarks	If late → base points = 0
Manager/Admin	Review Task	View submission (inline/open PDF/Word/Excel), give scores & remarks	Mandatory remarks if score <3
Employee	Appeal Missed Task	Submit reason + attachment	Must appeal within 48h
Manager	Approve/Reject Appeal	Updates task status	SLA: 48h → auto-approve by system

System	Auto-Approval	Appeals auto-approved if Manager/Admin don't act	Logged + notification sent
System	Performance Rating	Calculates performance cycle scores	Rating: <100%=Worst, 100=Good, 101–125=Better, >125=Best

6. Analytics & Reporting

Actor	Action	System Behavior / Workflow	Validation / Rules
Admin	Generate Reports	Create report on attendance, tasks, leaves, appeals	Filters: team, employee, date
Admin	Export Report	Export in CSV/PDF	File size limit 50 MB
Super Admin	View System Metrics	See workspace usage, SLA compliance, audit logs	Data refreshed daily

7. Employee Self-Service (ESS)

Actor	Action	System Behavior / Workflow	Validation / Rules
Employee	Update Profile	Edit limited fields (contact, address)	Sensitive fields (PAN, Aadhaar) → admin only
Employee	View Documents	Download payslips, history	Read-only
Employee	Apply Leave / Punch In	Use self-service shortcuts	Based on workspace shift calendar
Employee	View Performance	See ratings & remarks	Read-only, cannot edit

8. Super Admin – System Health

Actor	Action	System Behavior / Workflow	Validation / Rules
Super Admin	Monitor DB	View usage metrics	Alerts on thresholds
Super Admin	View Logs	See audit logs	Filter by workspace, user
Super Admin	Toggle Global Modules	Enable/disable features system-wide	Impacts all workspaces

Phase 2 – Extended Modules

1. Payroll Management

Actor	Action	System Behavior / Workflow	Validation / Rules
Admin	Define Salary Structure	Input basic, HRA, allowances, deductions	Must match compliance rules
System	Calculate Payroll	Auto-calc based on attendance + leave	Simulation mode before finalization
Admin	Generate Payslip	Create PDF slip per employee	Stored under employee profile
Employee	Download Payslip	ESS → payslip history	Read-only

2. Expense Management

Actor	Action	System Behavior / Workflow	Validation / Rules
Employee	Submit Expense	Upload claim + receipt	Valid categories only
Manager	Approve/Reject	Review and act	SLA 48h auto-escalation
Admin	Final Approve	Marks expense reimbursable	Expense logged in report

3. Recruitment (ATS)

Actor	Action	System Behavior / Workflow	Validation / Rules
Manager	Raise Requisition	Define role, count, budget	Needs Admin approval
Admin	Manage Pipeline	Add candidates, track stage	Candidate status required
Manager	Interview Feedback	Submit ratings & remarks	Candidate visible to Admin
Admin	Offer Letter	Generate from template	Stored in candidate record

4. Security Enhancements (Future Proofing)

Actor	Action	System Behavior / Workflow	Validation / Rules
Employee/Admin	OTP Login	OTP sent via Email/WhatsApp	Expiry 5 min
Admin	Enable 2FA	Adds extra layer on login	Mandatory for Super Admin

System	Encrypt Data	Store Aadhaar, PAN, Bank in AES-256	Masked in UI except last 4 digits
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