

# **TERMS OF REFERENCE**

## **Development and Implementation of Human Resources Management System for Judges**

**Judicial Service Commission (JSC)  
Republic of Maldives**

|                                         |                                            |
|-----------------------------------------|--------------------------------------------|
| <b>Engagement Type</b>                  | Individual Software Development Consultant |
| <b>Total Consultancy Period</b>         | 12 months                                  |
| <b>Development &amp; Implementation</b> | First 6 months                             |
| <b>Support &amp; Maintenance</b>        | Following 6 months                         |

## 1. Background

The Judicial Service Commission (JSC) intends to develop and implement a comprehensive Human Resources Management System specifically for the management of judges' personnel and human resource information. The system is intended to streamline and automate HR processes and improve the accuracy, accessibility, security and management of judges' records.

The system will support the management of core personnel information, educational qualifications, work experience, retirement, disciplinary information, leave, release, transfer, asset declaration, judicial performance evaluation, recusal information, notifications, documents, reporting and related HR activities.

JSC intends to engage an individual Software Development Consultant for a period of twelve (12) months to undertake requirements analysis, system design, development, integration, data migration, testing, deployment, documentation, training, support and maintenance.

## 2. Purpose of the Consultancy

The purpose of this consultancy is to design, develop, implement and support a secure, reliable and maintainable Human Resources Management System for Judges in accordance with JSC's operational requirements.

The Consultant shall work closely with JSC stakeholders to convert the high-level requirements in this TOR into detailed, approved system requirements and shall deliver a production-ready solution within the specified consultancy period.

## 3. Objectives

- Centralize and maintain accurate HR and personnel records relating to judges.
- Digitize and automate applicable HR processes and requests.
- Provide an integrated responsive web application and Flutter mobile application for Android and iOS.
- Provide secure internal access using JSC Microsoft Active Directory and AD-group-based authorization.
- Provide appropriate self-service access to judges using eFaas authentication.
- Integrate the system with relevant JSC systems, including Mathares case management and the asset declaration/Maalee Bayaan solution, as required.
- Provide comprehensive document management, auditability, reporting and notifications.
- Migrate existing HR data after appropriate cleansing, validation and mapping.
- Ensure that the solution meets JSC security, performance, maintainability and operational requirements.
- Transfer full technical knowledge, source code and system documentation to JSC.

## 4. Consultancy Period and Phasing

The total duration of the consultancy shall be twelve (12) months.

### 4.1 Development and Implementation Period - Months 1 to 6

The first six (6) months shall be dedicated to requirements gathering and analysis, solution design, UI/UX, development, integrations, data cleansing and migration, testing, User Acceptance Testing (UAT), deployment, training, documentation and production go-live. The Consultant shall plan the work so that the core system and agreed integrations are completed and deployed within this period.

## 4.2 Support and Maintenance Period - Months 7 to 12

The following six (6) months shall be dedicated to post-deployment support, corrective maintenance, bug fixing, stabilization, security remediation, performance optimization, operational assistance and minor adjustments or enhancements that remain within the agreed scope of the system.

## 5. Working Arrangement

- The Consultant shall work from JSC premises under a flexible working arrangement, with the working days and hours to be agreed with JSC in advance, throughout both the development/implementation and support/maintenance periods.
- The Consultant shall coordinate daily work with the JSC-designated project focal point and relevant stakeholders.
- Development work, source code, documentation and technical artifacts shall be maintained in repositories and locations controlled or approved by JSC.
- The Consultant shall participate in requirements sessions, technical meetings, demonstrations, testing sessions, training and other project activities required by JSC.
- The Consultant shall work collaboratively with the developer assigned to the Maalee Bayaan project during requirements gathering, technical planning and development activities. Both developers shall coordinate their work under the direction of JSC to support the development of the Judges HR Management System.

## 6. Scope of Work

The Consultant shall be responsible for the complete software development lifecycle and shall perform, at minimum, the following activities:

- Conduct detailed requirements gathering with JSC stakeholders and prepare a Software Requirements Specification (SRS) or equivalent approved requirements document.
- Work collaboratively with the developer assigned to the Maalee Bayaan project during requirements gathering, analysis, system design and technical planning, and coordinate with the developer during the core development of the Judges HR Management System.
- Document business processes, fixed approval workflows, data fields, validation rules, forms, reports, notifications, user roles, integrations and acceptance criteria.
- Design the application architecture, database, APIs, user interfaces and security model.
- Develop the system using the technology stack specified in this TOR.
- Lead and coordinate the core development of the system with development assistance from the Maalee Bayaan developer, including allocation and coordination of development activities in consultation with JSC.
- Develop and integrate all required functional modules.
- Implement authentication and authorization using Microsoft Active Directory for internal users and eFaas for judges.
- Integrate with Mathares and the separate asset declaration/Maalee Bayaan system according to requirements confirmed during analysis.
- Cleanse, map, validate and migrate existing HR data.
- Implement document management, notifications, audit logging, reporting and dashboards.
- Perform unit, integration, functional, security, performance and regression testing.
- Support JSC in UAT and rectify defects identified during testing.
- Deploy and configure the solution on JSC's on-premises Linux/Ubuntu infrastructure.
- Prepare all required user, administrator, technical, API, deployment, backup and maintenance documentation.
- Conduct training sessions at JSC.

- Provide six months of post-go-live support and maintenance for the backend, web application, Flutter mobile applications and integrations in accordance with the SLA.
- Perform complete source-code, documentation and knowledge handover to JSC.

## 7. Functional Requirements

The following requirements represent the minimum functional scope. Detailed fields, forms, workflows, rules and acceptance criteria shall be finalized and approved by JSC during requirements gathering. The final system shall not be limited to the examples listed below where additional requirements are identified and approved within the agreed scope.

### 7.1 Basic Information Management

- Maintain full name of judge.
- Maintain Record Card Number or other unique judge identifier.
- Maintain permanent and current addresses.
- Maintain date of birth and national ID card number.
- Maintain gender, mobile number, office and personal email addresses.
- Maintain service duration and related service information.
- Maintain judge photograph.
- Provide authorized view, create, update and historical record capabilities as required by JSC.

### 7.2 Other Information Management

- Maintain marital status and spouse information.
- Maintain emergency contact details.
- Maintain dates of birth and relevant information of dependents under 18 years of age.
- Support additional administrative and emergency information identified during requirements gathering.

### 7.3 Education Qualification Management

- Maintain education level and qualification details.
- Maintain date of issue/award.
- Maintain awarding institute.
- Support attachment of supporting qualification documents and verification information where required.
- Maintain a historical record of qualifications.

### 7.4 Work Experience History Management

- Maintain office/institution, post and salary details.
- Maintain termination date where applicable.
- Maintain chit/reference number and date.
- Preserve chronological employment and service history.
- Support relevant attachments and historical records.

### 7.5 Retirement Management

- Maintain and calculate retirement-related information, including applicable 55-year and 70-year milestones according to rules provided by JSC.
- Support retirement allowance request information/forms.
- Support Statement of Benefit Submission (SBS) form information.
- Generate applicable retirement alerts and notifications.

- Maintain retirement status, dates, documents and history.

## 7.6 Offenses / Disciplinary Information Management

- Maintain disciplinary action type.
- Maintain summary and date of disciplinary action.
- Maintain additional details where a decision/action is appealed.
- Support relevant documents and records.
- Restrict access to authorized users and maintain a complete audit history.

## 7.7 Leave Management

- Maintain leave type.
- Maintain leave period (from/to dates).
- Maintain court handover details during the leave period.
- Allow judges to submit applicable leave requests through judge self-service.
- Implement the fixed approval workflow agreed and approved by JSC during requirements gathering.
- Maintain request status, decisions, remarks, attachments and complete history.
- Generate applicable in-system and email notifications.

## 7.8 Release Management

- Maintain purpose of release, including training, study tour and other approved purposes.
- Maintain release period (from/to dates).
- Maintain court handover details during the release period.
- Allow judges to submit applicable release requests.
- Implement the fixed approval workflow approved by JSC during requirements gathering.
- Maintain supporting documents, status, decisions, remarks and history.
- Generate applicable notifications.

## 7.9 Transfer Management

- Maintain reason for transfer request.
- Maintain transfer date and date of decision.
- Maintain transferred court.
- Maintain transfer chit/reference and supporting documentation.
- Maintain temporary transfer period (from/to dates).
- Allow applicable transfer requests to be submitted through judge self-service.
- Implement the fixed approval workflow approved by JSC during requirements gathering.
- Maintain transfer history and notifications.

## 7.10 Asset Declaration / Maalee Bayaan Module

The Judges HR Management System shall include the Maalee Bayaan / Asset Declaration module as an integral part of the overall system. Development of this module will be primarily undertaken by a separate developer assigned by JSC, in coordination with the Consultant.

The Consultant shall work closely with the assigned Maalee Bayaan developer during requirements gathering, system design, development, testing and implementation to ensure that the module is fully integrated with the overall HR Management System and follows the approved system architecture, database design, security model, APIs, development standards and user-access requirements.

The Consultant and the assigned Maalee Bayaan developer shall coordinate their development activities to ensure that the Maalee Bayaan module operates as an integrated component of the Judges HR Management System without unnecessary duplication of common functionality, data, authentication, APIs or other shared system components.

### 7.11 Judicial Performance Evaluation Management

- Provide an internal performance evaluation module based on detailed requirements and evaluation rules supplied by JSC.
- Maintain employee/judge information relevant to evaluation.
- Support scheduling and tracking of performance review cycles.
- Capture feedback, notes and approved evaluation information.
- Support quantitative and qualitative performance metrics.
- Support performance ratings using the JSC-approved rating methodology.
- Maintain performance evaluation history.
- Support development plans where required.
- Provide reporting and analytics.
- Support upload, download and viewing of relevant reports/documents.
- Performance evaluation information shall be restricted to authorized internal users in accordance with JSC-approved access rules.

### 7.12 Recusal Cases Management

- Maintain or display recusal-related information required by JSC, including year, judge, court, reason for recusal/Thanazul, new judge and date where applicable.
- Recusal information shall be updated from the relevant existing system, including Mathares where applicable, rather than requiring unnecessary duplicate data entry.
- Detailed integration fields, synchronization rules and source-of-truth requirements shall be established during requirements gathering.

### 7.13 Notifications Management

- Provide in-system, email and mobile push notifications where required by JSC.
- Support notifications for voluntary retirement.
- Support notifications for involuntary retirement.
- Support 70-year retirement notifications.
- Support asset declaration submission-related notifications where applicable through integration.
- Support performance evaluation notifications.
- Support suspension-end notifications where applicable.
- Support workflow/request notifications and other HR notifications identified during requirements gathering.
- Maintain notification status/history as required.

### 7.14 Judicial Cluster Map Integration

The system shall include functionality for managing and displaying the judicial cluster structure and the allocation of judges within the respective judicial areas/clusters.

The module shall include, but not be limited to, the following:

- Maintain the judicial cluster structure, including atolls, islands, courts, and applicable judicial clusters.
- Associate judges and courts with the relevant judicial clusters.
- Display judges according to their respective judicial clusters and locations.

- Provide a visual cluster map/chart similar to the existing Judicial Cluster Map published on the JSC website.
- Automatically reflect applicable changes to judge information, transfers, appointments, retirements, and other relevant HR records in the cluster information.
- Provide summary statistics relating to judicial clusters, courts, locations, and judges.
- Allow authorized JSC users to manage information required for the Cluster Map.
- Provide the necessary API or integration mechanism to make approved Cluster Map information available to the JSC website and other authorized systems, where required.
- Ensure that only information approved for public disclosure is made available through any public-facing integration.
- Maintain appropriate audit logs for changes made to cluster-related information.
- The detailed cluster structure, data fields, visualization, business rules, integration requirements, and information to be made publicly available shall be gathered, documented, and approved by JSC during the requirements-gathering stage.

## 8. Judge Self-Service

- The system shall primarily serve as an internal HR administration system while providing judges with controlled self-service access for functions approved by JSC.
- Judges shall authenticate through eFaas. The Consultant shall implement the required eFaas integration for the web application and Flutter mobile application, as applicable.
- Judges shall be able to use the responsive web application and Flutter mobile application, as approved by JSC, to submit applicable requests and information, view submission status, receive notifications, upload/view applicable documents, and access other approved self-service functions.
- The exact self-service functions and data visibility rules shall be finalized during requirements gathering.
- Judges shall not be given access to internal HR information, evaluation information or other restricted information unless expressly approved by JSC.

## 9. Approval Workflows

Approval workflows shall be fixed workflows implemented according to JSC's approved business processes. The system is not required to provide an end-user workflow designer.

- During requirements gathering, the Consultant shall identify and document the approval hierarchy, approval levels, responsible roles, decision points, return/rejection paths, notifications and applicable business rules for each process.
- Each workflow shall be reviewed and approved by JSC before implementation.
- The Consultant shall implement the approved workflows in the application and maintain appropriate status and audit history.
- Any subsequent workflow change shall be implemented through the agreed change-management process.

## 10. Authentication, Authorization and User Management

- Internal JSC users shall authenticate using JSC's existing Microsoft Active Directory. The application shall not require separate local passwords for normal internal users unless explicitly approved for a technical or emergency purpose.
- Authorization for internal users shall be based on JSC Active Directory groups and mapped application permissions/roles.
- Judges shall authenticate using eFaas through an integration implemented for the web application and Flutter mobile application, as applicable.

- The system shall enforce least-privilege access and prevent unauthorized access to restricted judge and HR information.
- Administrative access and exceptional access shall be logged.
- The system shall support role/permission mappings necessary to enforce JSC-approved access rules.

## 11. Integration Requirements

### 11.1 Microsoft Active Directory

Integrate with JSC Active Directory for internal authentication and AD-group-based authorization.

### 11.2 eFaas

Implement eFaas authentication for judges across the applicable web and Flutter mobile application channels. Detailed eFaas technical requirements, registration/configuration and identity mapping shall be coordinated with JSC and relevant service providers.

### 11.3 Mathares Case Management System

Mathares is JSC's case management system. The Consultant shall analyze the available interfaces and implement the required integration for relevant case/judge information, including recusal-related information where applicable. Exact fields, APIs, synchronization frequency, error handling and source-of-truth rules shall be confirmed during requirements gathering.

### 11.4 Asset Declaration / Maalee Bayaan Coordination

The Maalee Bayaan / Asset Declaration module shall be developed as an integral component of the Judges HR Management System. Development of the module will be primarily undertaken by a separate developer assigned by JSC.

The Consultant shall coordinate and work closely with the assigned Maalee Bayaan developer throughout requirements gathering, technical design, development, integration, testing and implementation activities.

The Consultant and the Maalee Bayaan developer shall follow a coordinated technical approach, including the approved system architecture, database design, APIs, authentication and authorization mechanisms, security requirements, coding standards, version control practices and shared system components.

The Consultant shall ensure that the core HR system provides the necessary common functionality and technical interfaces required for the Maalee Bayaan module to operate as an integrated part of the overall system.

The assigned Maalee Bayaan developer shall also assist the Consultant with requirements gathering and core development of the Judges HR Management System as directed by JSC.

Both developers shall coordinate their development activities with the JSC technical team to avoid duplication, maintain compatibility between modules and ensure that the completed solution operates as a single integrated HR Management System.

### 11.5 Integration Design

- All integrations shall use secure, documented interfaces approved by JSC.
- REST APIs shall be used where applicable.
- Integration failures shall be logged and handled without corrupting system data.

- API credentials and secrets shall be securely managed and shall not be hard-coded in source code.
- The Consultant shall prepare API and integration documentation.

### 11.6 JSC Judicial Cluster Map Integration

The system shall provide a secure API to make approved Judicial Cluster Map information maintained within the HR Management System available to the JSC website and other authorized systems, where required.

The integration shall include, but not be limited to, the following:

- Develop appropriate REST API endpoints for retrieving approved Judicial Cluster Map information.
- Ensure that changes made to Cluster Map information within the HR Management System are reflected through the API without requiring duplicate data entry.
- Ensure that only information approved by JSC for public disclosure is made available through public-facing API endpoints.
- Implement appropriate authentication, authorization, data validation, error handling, logging, and security controls for the API.
- Provide complete API documentation, including endpoints, data structures, authentication requirements, and integration instructions.

The detailed API specifications, data to be exposed, access controls, and integration requirements shall be identified, documented, and approved by JSC during the requirements-gathering stage.

### 11.7 Additional API Requirements

- The Consultant shall develop and provide any additional API endpoints required by JSC to support the approved functional, integration, reporting, and data exchange requirements of the system.
- The detailed API requirements, endpoints, data structures, access controls, and security requirements shall be identified, documented, and approved by JSC during the requirements-gathering and development stages.

## 12. Document Management Requirements

- Upload, download and view documents and attachments associated with applicable records and processes.
- Categorize documents and associate them with the relevant judge, request, transaction or module.
- Restrict document access according to user permissions.
- Maintain document metadata and history as required.
- Support commonly used file formats agreed by JSC and enforce file size/type restrictions.
- Protect uploaded files from unauthorized access and unsafe file handling.
- Provide search/filtering of documents where required.
- Maintain auditable records of relevant document actions.
- Support generation of PDF or printable outputs for forms/reports where required by JSC.

## 13. Reporting and Dashboard Requirements

The system shall provide comprehensive operational and management reports. Reports shall not be limited to the following:

- Judge profile / comprehensive HR record report.

- Daily Attendance Report
- Employees on Leave Report
- Late and Absent Report
- Retirement and retirement eligibility reports.
- Transfer history reports.
- Disciplinary/offense reports.
- Asset declaration compliance/status reports.
- Performance evaluation reports.
- Recusal reports.
- Attendance Statistics Report
- Monthly Attendance Statistics Report
- Workforce and HR statistics.
- Management dashboards and summaries.
- Request/workflow status reports.
- Audit and activity reports for authorized users.
- Judicial Cluster Map reports and statistics, including information on judicial clusters, atolls/islands, courts, locations, and allocation of judges.

Reports shall support appropriate filtering, sorting and export to formats such as PDF and Excel where required. Additional reports identified and approved during requirements gathering shall be implemented within the agreed scope.

## 14. Data Migration

- Assess existing HR data sources and prepare a data migration plan.
- Perform data profiling, cleansing, normalization, mapping and validation in coordination with JSC.
- Develop migration scripts/processes that can be rerun in a controlled manner where practical.
- Preserve data integrity and relevant historical relationships.
- Identify duplicate, incomplete or invalid records and report them to JSC for resolution.
- Perform trial migrations before final production migration.
- Reconcile migrated data and obtain JSC acceptance of the migration results.
- Ensure that source data and migration files are handled securely.
- Provide migration scripts and migration documentation to JSC as part of the handover.

## 15. Technical Requirements

- Backend: Laravel / PHP.
- Database: MySQL.
- Web Frontend: Modern responsive web frontend suitable for desktop, tablet and mobile browser use.
- Mobile Application: Flutter-based mobile application supporting both Android and iOS, integrated with the same Laravel backend and REST APIs.
- Application interfaces: REST APIs.
- Deployment platform: Linux/Ubuntu on JSC on-premises infrastructure.
- Application language/user interface: Dhivehi only, with appropriate support for Thaana/right-to-left presentation.
- The web and mobile user interfaces shall provide full Dhivehi/Thaana and right-to-left (RTL) support.
- Use a modular, maintainable architecture with clear separation of presentation, business logic and data access responsibilities.
- Use database integrity constraints, appropriate indexing and transaction handling.
- Use version-controlled database migrations and controlled configuration management.
- Use supported and appropriately licensed software dependencies.

- The solution shall be designed for maintainability, scalability, reliability and reasonable performance on JSC-provided infrastructure.
- The Consultant shall not introduce paid/proprietary dependencies without prior written approval from JSC.

## 16. Security Requirements

The system will process sensitive personnel and judicial information. Security shall therefore be incorporated throughout design, development, deployment and support.

- Follow secure software development practices and applicable OWASP guidance, including the OWASP Top 10.
- Encrypt data in transit using approved TLS configurations.
- Protect sensitive data at rest where required by JSC and the approved design.
- Implement strict access control and server-side authorization checks.
- Validate and sanitize all inputs and protect against common web application vulnerabilities.
- Implement secure session management, timeout and logout controls.
- Protect against CSRF, XSS, SQL injection, broken access control, insecure file upload and other applicable threats.
- Implement comprehensive audit logs for authentication, administrative actions, sensitive record access/changes, workflow actions and other security-relevant events.
- Protect logs from unauthorized alteration and restrict access to authorized users.
- Do not store credentials, tokens, private keys or production secrets in source code.
- Use secure configuration and secret-management practices approved by JSC.
- Perform dependency and vulnerability review throughout development.
- Conduct security testing/vulnerability assessment before production go-live and remediate identified critical/high-risk issues before acceptance.
- Support security remediation during the support period.
- Apply appropriate backup, restore and recovery controls in coordination with JSC infrastructure administrators.
- Ensure that test data and development environments do not expose sensitive production information without appropriate controls.

## 17. Audit Trail

- The application shall maintain an audit trail sufficient to identify who performed an action, what action was performed, the affected record, date/time, and relevant before/after information where appropriate.
- Audit information shall cover creation, modification, deletion/archival, approval/rejection, authentication and other sensitive operations.
- Audit logs shall be searchable/reportable for authorized users.
- Normal users shall not be able to alter or delete audit records.

## 18. Development Methodology and Project Management

- Use an Agile/iterative development approach with incremental delivery of modules and regular demonstrations to JSC.
- Prepare and maintain an implementation plan covering the six-month development period.
- Maintain a requirements/issues/task register and provide progress updates as required by JSC.
- Obtain JSC confirmation of requirements and designs before or during implementation as appropriate.
- Demonstrate completed functionality regularly and incorporate agreed feedback.

- Manage changes in scope through an agreed change-management process.
- Escalate technical dependencies, integration blockers, security concerns and schedule risks promptly.
- The Consultant shall coordinate development activities with the Maalee Bayaan developer, including technical discussions, development task allocation, source-code coordination, integration activities, testing and resolution of development issues, in consultation with the JSC technical team.

## 19. Testing and Quality Assurance

- Prepare test cases and test data for the developed functionality.
- Perform unit testing, integration testing, functional/system testing and regression testing.
- Perform validation of integrations, notifications, permissions, workflows and reports.
- Perform responsive web UI/browser compatibility testing and Flutter mobile application testing on supported Android and iOS devices/versions agreed with JSC.
- Perform security testing and vulnerability assessment.
- Perform reasonable performance testing for critical functions.
- Maintain a defect register and rectify defects before release.
- Support JSC-led User Acceptance Testing.
- No production go-live shall take place until critical defects are resolved and JSC approves deployment.

## 20. Deployment and Go-Live

- Deploy the Laravel backend, REST APIs and web application on JSC's on-premises Linux/Ubuntu infrastructure, and prepare/build the Flutter mobile applications for Android and iOS distribution through the method specified by JSC.
- The Consultant shall support mobile application signing, build configuration, release preparation and submission/distribution processes required by JSC, including app-store release where applicable.
- Coordinate with JSC technical personnel on server, database, network, DNS, certificates, email and integration configuration.
- Prepare documented deployment and rollback procedures.
- Configure production settings securely and separately from development/test settings.
- Perform final data migration and verification.
- Provide go-live assistance and closely monitor the system during stabilization.
- Ensure that JSC personnel have sufficient documentation and knowledge to operate and redeploy the system.

## 21. Documentation and Training

The Consultant shall prepare and maintain documentation throughout the engagement. At minimum, the following shall be delivered:

- Approved requirements/SRS documentation.
- System architecture and design documentation.
- Database schema/data dictionary.
- API and integration documentation.
- Deployment and installation guide.
- Flutter mobile application build, signing, configuration, release and deployment documentation.
- Configuration and environment requirements.
- Backup and restore procedures.
- Administrator manual.
- User manual.

- Technical/maintenance documentation.
- Testing documentation and results.
- Data migration scripts and migration documentation.
- Training materials.
- Release notes/change log as applicable.

The Consultant shall conduct training sessions at JSC and provide technical knowledge transfer sufficient for JSC-designated personnel to operate, administer, deploy and maintain the solution.

## 22. Source Code, Intellectual Property and Handover

JSC shall be the sole owner of the system developed under this consultancy, including all project-specific source code, database designs, APIs, documentation, configurations, scripts, designs and other deliverables produced specifically for JSC, subject to the licenses of approved pre-existing third-party/open-source components.

- All source code shall be maintained in a JSC-controlled or JSC-approved Git repository throughout the engagement.
- The Consultant shall provide JSC with complete and current source code at all times and at final handover.
- The Consultant shall not reuse, sell, distribute, disclose, license or otherwise use JSC-owned project-specific source code or confidential project materials for any other purpose without JSC's written authorization.
- Handover shall include complete backend, web frontend and Flutter mobile application source code, database schema and migrations, build/deployment scripts, mobile build and signing configuration documentation, configuration templates, API specifications, integration documentation, testing documentation, migration scripts, operational documentation and all other materials required to build, deploy, release, operate and maintain the system.
- Credentials, keys, certificates and secrets shall be transferred only through a secure process agreed with JSC and shall not be embedded in source code.
- The Consultant shall identify all third-party/open-source components and their applicable licenses.
- The Consultant shall provide technical knowledge transfer and resolve handover deficiencies identified by JSC before final completion.

## 23. Deliverables

| Month | Deliverable                             | Description                                                                                                                                                                                                                                                                                                              |
|-------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | Requirements Analysis and System Design | Requirements gathering; approved SRS; detailed requirements for all modules; fixed approval workflows; user roles and access requirements; forms and fields; web/mobile UI/UX; database and system architecture; integration specifications; migration assessment; reporting requirements; detailed implementation plan. |
| 2     | Core HR Development – Phase 1           | Development and demonstration of Basic Information, Other Information, Education Qualification and Work Experience History modules; foundational database structure; AD authentication and AD-group-based authorization; common document-management functionality.                                                       |

| Month | Deliverable                                              | Description                                                                                                                                                                                                                                                                                        |
|-------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3     | Core HR Development – Phase 2                            | Development and demonstration of Retirement, Offenses/Disciplinary Information, Leave, Release and Transfer modules; implementation of approved workflows; applicable notifications and document functionality; Asset Declaration Management/Maalee Bayaan;.                                       |
| 4     | Specialized Modules and Mobile Application               | Development and Judicial Performance Evaluation, Recusal Cases and Notifications; completion of the Judicial Cluster Map functionality and API integration; substantial development of the Flutter mobile application and judge self-service functions.                                            |
| 5     | Integrations, Reporting, Migration and System Completion | eFaas integration; Fahires integration; Mathares integration; completion of Flutter mobile application; required reports and dashboards; data cleansing and trial migration; completion of outstanding functionality; integration and system testing.                                              |
| 6     | UAT, Production Deployment and Go-Live                   | Security/vulnerability testing; defect resolution; UAT support and resolution of UAT findings; final data migration; production deployment; Android/iOS application release preparation; training; required documentation; source-code and technical handover for the production release; go-live. |
| 7     | Post-Go-Live Support – Month 1                           | Production monitoring; resolution of reported defects; stabilization; user support; SLA compliance; correction of deployment/integration issues; monthly support report.                                                                                                                           |
| 8     | Post-Go-Live Support – Month 2                           | Bug fixing; performance optimization; security remediation; operational support; approved minor adjustments; SLA compliance; monthly support report.                                                                                                                                               |
| 9     | Post-Go-Live Support – Month 3                           | Continued corrective maintenance; resolution of functional/integration issues; approved minor adjustments; system optimization; SLA compliance; monthly support report.                                                                                                                            |
| 10    | Post-Go-Live Support – Month 4                           | Continued application/mobile support; bug fixing; security and performance improvements; approved minor adjustments; SLA compliance; monthly support report.                                                                                                                                       |
| 11    | Post-Go-Live Support – Month 5                           | Continued maintenance and stabilization; resolution of outstanding defects; technical/documentation updates; SLA compliance; monthly support report.                                                                                                                                               |
| 12    | Final Support, Review and Handover                       | Final defect resolution; system health review; final documentation updates; source-code/repository review; confirmation of deployment/build procedures; final knowledge transfer; resolution of outstanding handover matters; final support report.                                                |

## 24. Implementation Schedule

The consultancy shall be carried out over a period of twelve (12) months, comprising six (6) months for development and implementation followed by six (6) months for post-go-live support and maintenance.

The Consultant shall prepare and maintain a detailed project work plan in consultation with JSC. The work plan shall identify the activities, outputs, and deliverables to be completed during each month.

The indicative implementation schedule shall be as follows:

| Period             | Phase                                      | Key Activities / Expected Deliverables                                                                                                                                                                                                                |
|--------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Month 1</b>     | Requirements Analysis & Design             | Requirements gathering, process analysis, SRS, data/integration assessment, architecture and initial UI/UX.                                                                                                                                           |
| <b>Month 2</b>     | Development – Phase 1                      | Development of foundational components and agreed core HR modules; AD authentication and AD-group-based authorization; database implementation; document management; REST APIs; commencement of Flutter mobile application development.               |
| <b>Month 3</b>     | Development – Phase 2                      | Development of remaining core HR modules and approved workflows; continued Flutter application development; notifications; applicable document functionality; Asset Declaration Management/Maalee Bayaan; regular demonstrations and review with JSC. |
| <b>Month 4</b>     | Specialized Modules and Mobile Application | Remaining modules, performance evaluation functionality, complete the Judicial Cluster Map functionality and API integration, reporting/dashboard and continued integrations/migration work.                                                          |
| <b>Month 5</b>     | Integration, Migration & Testing           | eFaas, Fahires and Mathares integrations; completion of web and mobile functionality; data cleansing and trial migration; reports and dashboards; system/integration testing; security testing; defect rectification and preparation for UAT.         |
| <b>Month 6</b>     | UAT, Deployment & Go-Live                  | UAT and resolution of findings; final data migration; vulnerability/security assessment and remediation; production deployment; mobile application release preparation; training; documentation; source-code handover; production go-live.            |
| <b>Months 7-12</b> | Support & Maintenance                      | Post-go-live support; bug fixing; stabilization; security remediation; performance optimization; SLA-based support; approved minor adjustments; documentation updates and ongoing technical assistance.                                               |

The Consultant shall prepare a detailed implementation plan for JSC approval. The indicative schedule may be refined during the initial planning stage provided that production go-live remains targeted within the first six months.

## 25. Service Level Agreement (Support Period)

During the six (6) month support and maintenance period, the Consultant shall provide timely technical support, corrective maintenance, bug fixing, security remediation, performance optimization and other support services required under this TOR.

The following service levels shall apply:

| Severity        | Description                                                                                                                                  | Initial Response | Target Resolution / Workaround |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------|
| <b>Critical</b> | Complete system outage, severe security incident, data corruption, or critical business operation unavailable with no reasonable workaround. | 1 hour           | 4 hours                        |
| <b>High</b>     | Major function or integration unavailable and materially affecting operations, but the entire system is not unavailable.                     | 2 hours          | 8 hours                        |
| <b>Medium</b>   | Function impaired or defect affecting normal operation where a reasonable workaround exists.                                                 | 4 hours          | 2 business days                |
| <b>Low</b>      | Minor defect, cosmetic issue, low-impact usability issue or non-urgent correction.                                                           | 1 business day   | 5 business days                |

For Months 7 to 12, satisfactory provision of support and maintenance services and compliance with the applicable SLA requirements shall constitute part of the deliverable for each respective month.

The Consultant shall maintain a record of support requests received during each month, including the issue, severity, date and time reported, actions taken, response time, resolution or workaround time, current status, and date of closure. This information shall be included in the monthly progress report submitted to JSC.

JSC shall assess the Consultant's performance for each support month based on the satisfactory completion of the applicable support activities, resolution of reported issues, compliance with the SLA, submission of the required monthly progress report, and completion of any other work assigned within the scope of this TOR.

Where an issue cannot reasonably be resolved within the applicable resolution period due to technical complexity, third-party dependency, or another circumstance accepted by JSC, the Consultant shall provide an appropriate workaround where possible and submit a resolution plan and estimated completion timeframe for JSC's approval.

## 26. Acceptance Criteria

All deliverables submitted by the Consultant shall be subject to review, verification, and acceptance by JSC. **Acceptance by JSC of the applicable monthly deliverable shall be a prerequisite for processing payment for the respective month.**

A deliverable shall be considered accepted only when JSC is satisfied that the required work for the applicable period has been satisfactorily completed and that the deliverable complies with the requirements, specifications, quality standards, and other obligations set out in this TOR, the approved requirements, and the agreed project work plan.

Where JSC identifies deficiencies, defects, incomplete work, or non-compliance with the agreed requirements, JSC may require the Consultant to rectify such matters and resubmit the deliverable for review. **The deliverable shall not be considered accepted until the identified issues have been satisfactorily addressed and acceptance has been confirmed by JSC.**

For the support and maintenance period, acceptance of the monthly deliverable shall also take into consideration the satisfactory provision of support services, resolution of reported issues, compliance with the applicable SLA requirements under Section 25, and submission of the required monthly progress report.

Acceptance shall be assessed against the applicable criteria below, where relevant to the respective deliverable:

- Requirements and workflows have been documented and approved by JSC.
- The agreed functional modules and integrations operate according to approved requirements.
- AD authentication/group authorization and eFaas judge authentication function correctly across the applicable web and Flutter mobile application channels.
- Data migration is reconciled and accepted by JSC.
- Critical and High defects identified for go-live are resolved or otherwise explicitly accepted by JSC.
- Security/vulnerability assessment has been completed and unacceptable security findings have been remediated.
- Required reports, notifications, audit logging and document management functions operate as approved.
- The system is successfully deployed on JSC infrastructure and passes UAT.
- Required documentation, training, source code and technical handover have been completed.

## 27. Consultant Responsibilities

- Deliver the work professionally and within the agreed schedule.
- Work from JSC premises under the flexible working arrangement agreed with JSC in advance and remain available in accordance with the agreed working days and hours.
- Gather, document and validate requirements with relevant stakeholders.
- Design, develop, test, deploy, document and support the system.
- Follow JSC security, confidentiality, IT and access-control requirements.
- Protect all JSC information and use it only for the purpose of this consultancy.
- Maintain source code and technical documentation in JSC-controlled repositories/locations.
- Report progress, risks, dependencies, defects and blockers to the JSC focal point.
- Coordinate with JSC personnel and third parties where integrations require such coordination.
- Correct defects and provide support in accordance with this TOR and the SLA.
- Complete knowledge transfer and handover before the end of the consultancy.
- Work collaboratively with the developer assigned to the Maalee Bayaan project during requirements gathering, system design, technical planning and core system development.
- Coordinate development tasks, technical decisions, integrations, testing and other joint development activities with the Maalee Bayaan developer and JSC technical team.

## 28. JSC Responsibilities

- Nominate a project focal point and relevant stakeholders.
- Provide access to approved requirements, policies, forms, business rules and existing data required for the work.
- Facilitate access to JSC premises, development resources and approved infrastructure necessary for the consultancy.

- Facilitate technical information/access required for Active Directory, eFaas, Fahires, Mathares subject to applicable approvals.
- Review and provide feedback on requirements, demonstrations, UAT and deliverables within reasonable time.
- Provide or coordinate infrastructure required for on-premises deployment.
- Identify authorized users and AD groups and approve access-control mappings.
- Participate in data validation, UAT and acceptance activities.

## 29. Confidentiality and Data Protection

- All information, records, credentials, source code, documents and data accessed during the consultancy shall be treated as confidential.
- The Consultant shall not copy, disclose, transmit or use JSC information except as necessary to perform the consultancy and as authorized by JSC.
- Production data shall not be transferred to unauthorized devices, cloud services, repositories or third parties.
- Any suspected data breach, security incident or unauthorized disclosure shall be reported to JSC immediately.
- Confidentiality obligations shall continue after completion or termination of the consultancy.

## 30. Payment

Payment to the Consultant shall be made on a monthly basis, subject to the satisfactory completion, submission, and acceptance by JSC of the deliverables and work assigned for the respective month.

Payment for each month shall be processed upon verification by JSC that the Consultant has satisfactorily completed the applicable monthly deliverables, activities, and responsibilities specified in this TOR and the approved project work plan.

Where a monthly deliverable is incomplete or does not meet the approved requirements, specifications, acceptance criteria, or required quality standards, JSC may require the Consultant to rectify the identified deficiencies before the corresponding payment is processed.

The Consultant shall submit a monthly progress report together with the applicable deliverables, detailing the work completed, deliverables submitted, issues identified and resolved, outstanding matters, and planned activities for the following month.

## 31. Minimum Qualification and Experience

- A Bachelor's Degree in Computer Science, Software Engineering, Information Technology, Information Systems, or a related field.
- Minimum five (5) years of relevant professional experience in software/application development.
- Strong practical experience with PHP and Laravel.
- Demonstrated experience in Flutter mobile application development for Android and iOS, including REST API integration, authentication, push notifications, application build and release management.
- Experience with MySQL database design, development and optimization.
- Experience developing responsive modern web interfaces and REST APIs.
- Experience with authentication, authorization and integration with enterprise identity systems; Microsoft Active Directory experience is preferred.
- Experience integrating third-party systems/APIs; eFaas or similar identity integration experience is an advantage.
- Knowledge of Linux/Ubuntu application deployment and web-server/database configuration.
- Knowledge of secure software development, OWASP guidance and web application security testing.

- Experience with Git/version control, testing, documentation, deployment and production support.
- Ability to gather requirements, analyze business processes and work directly with non-technical stakeholders.

## 32. Required Competencies

- Strong analytical and problem-solving skills.
- Ability to independently manage a complete software development lifecycle.
- Ability to communicate technical matters clearly with JSC stakeholders.
- Strong documentation and knowledge-transfer skills.
- Ability to work collaboratively in an on-site environment.
- Commitment to confidentiality, security, quality and maintainable software.

## 33. Evaluation Criteria

Applicants shall first be assessed against the mandatory minimum qualification and experience requirements specified in this TOR. Applicants who do not meet the mandatory minimum requirements shall not proceed to the evaluation process.

Eligible applicants shall be evaluated based on the criteria in the Annex 1

| Evaluation                                | Marks |
|-------------------------------------------|-------|
| Academic Qualification                    | 10    |
| Relevant Experience & Similar Assignments | 20    |
| Practical Examination                     | 40    |
| Technical Interview                       | 30    |
| Total                                     | 100   |

JSC may shortlist applicants based on the documentary evaluation of qualifications and experience. Only shortlisted applicants may be invited for a technical interview.

Applicants shall provide sufficient documentary evidence to substantiate their qualifications and experience. JSC reserves the right to verify qualifications, employment history, project experience, references, and other information submitted as part of the application.

## 34. Final Completion

The consultancy shall be considered complete after the twelve-month period when the agreed system has been implemented and supported, outstanding contractual defects and handover matters have been addressed, and all source code, documentation, credentials/configuration materials, migration artifacts and other required deliverables have been transferred to and accepted by JSC.