

**SWE30010 - Managing IT Projects**

**HUMAN RESOURCE MANAGEMENT WITH**

**ATTENDANCE SYSTEM**

# By Group 2

**GROUP INFORMATION**

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**PROJECT PROPOSAL**

**HUMAN RESOURCE MANAGEMENT WITH ATTENDANCE SYSTEM**

1. **QUALITY MANAGEMENT**
   1. **What is Quality?**

Within the framework of this Biometric Attendance system project, a "quality" platform is defined as the ultimate platform that satisfies all of the employee criteria. The following is a summary of these requirements:

* **Technical requirements**
* The system should seamlessly integrate with biometric devices (such as fingerprint scanners, iris recognition, or facial recognition cameras) to capture employee attendance data, ensure compatibility with various biometric technologies and models.
* Store and manage employee data, attendance records, and biometric templates securely in a database, implement efficient data retrieval and update mechanisms.
* Utilize TCP/IP, wireless, fiber, or copper networks for data transfer between biometric devices and the central system.
* Design the system to handle a growing number of employees and devices.
* **Functional Requirements**

All core functionalities of Biometric Attendance system can work efficiently and do not have any severe errors that corrupt the system. Core functionalities include:

* Biometric Attendance Tracking
* Visitor Management and Leave Management
* Efficient Payroll Integration
* Reporting and Analytics
* User-Friendly Interface
* Security Enhancement
* Accountability and Transparency
* **Non-Functional Requirements**
* Ensure data privacy and protection of biometric templates, implement encryption during data transmission and storage, prevent unauthorized access.
* Maintain high system availability (uptime) to avoid disruptions, regularly back up data and enable efficient recovery mechanisms.
* Response time for biometric authentication should be fast, handle concurrent requests efficiently.
* Enable easy system updates and maintenance, support adding new features without disrupting existing functionality.
* Provide user manuals, technical guides, and change logs, document system architecture and design.
  1. **How to measure quality?**

The Definition of Done (DoD) checklist can be used to assess the quality of Biometric Attendance system development. Before software development is considered complete, this checklist consists of a set of conditions that have to be met. There are several items on the DoD checklist before the release, including:

* Core functionalities development: The platform must be constructed with all of the essential features listed in the project proposal. Both automated test cases and manual tests can be used throughout the testing process.
* Usability and Scalability: Consider factors like reaction time and resource usage while assessing the software's performance under workloads. Verify that the system is capable of handling an unexpected increase in workload.
* Code Quality and Conventions: Verify that the code complies with the requirements for readability, maintainability, naming conventions, and code structure.
* Security: Verify if the platform followed the necessary data protection and authentication guidelines. Performing security testing, reviewing protocols, and reviewing IT policies and documentation are all part of this process.
* Testing and Documentation: Conduct unit testing to verify individual components, integration testing to validate interactions between modules, and user acceptance testing (UAT) involving end-users.
* UX/UI Testing: Make that the UI is responsive, easy to use, and visually consistent. It ought to satisfy every design criterion listed in the proposal.

There are several methods and metrics for assessing quality when it comes to measuring. As a result, the measuring process is standardized in many quality models. IEEE 1061, COSMIC, ISO/IEC 9126, and ISO 25010 are a few of the widely used models. Whichever quality evaluation technique is selected, the DoD Checklist's evaluation criteria must be properly formatted, comprehensible, and appropriate. The DoD can be improved by using S.M.A.R.T. concepts.

1. **DEFINITION OF DONE CHECKLIST**