

AUTOMATED HR+EMPLOYEE MANAGEMENT SYSTEM

SOFTWARE REQUIREMENT ENGINEERING

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Deliverable 2

TAYYBA 20i-2314

DANIYAL 20i-1847

USMAN 20i-2602

MAHAD 20i-1808

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Section	Content
Designation	UC-1
Name	Calculate Employee Bonuses
Authors	Usman, Mahad, Daniyal, Tayyba
Priority	Importance for system success: high Technological risk: high
Criticality	High
Source	Vision 1.0
Responsible	Usman (Domain Expert in Employee management)
Description	The system generates the bonuses of the employee based on the employee's uptime, leaves, performance, remarks from supervisors, and his projects.
Trigger event	The Accounts Manager wants to calculate the Bonus of each employee.
Actors	Accounts Manager, Employee Pay information, Employee HR information, System(Verification of User)
Pre-Condition	The Accounts Manager must be logged into the system. The accounts manager must have the confirmation before calculating the bonus of any employee or all employees. The Information of each employee's uptime, projects, performances, and remarks must be present in the system.
Post Condition	The bonus of an employee is generated.
Result	The bonus of an employee is generated and added to the gross salary of the employee and also saved in an employee's payroll information.

Main Scenario	<ol style="list-style-type: none"> 1. The Accounts Manager logs into the system through proper verification. 2. The Accounts Manager navigates to the Payroll Management panel. 3. The Accounts Manager selects to generate a bonus for a particular employee or of all employees. 4. The Accounts manager once again confirms his identity to process. 5. The system then gathers information of the respective employees necessary to generate bonuses. 6. The system then displays the bonus of the respective employee or employees along with the functionality to add it to gross salary or put it on hold.
Alternative Scenario	<p>5.1. If the information of any employee is missing then send a request to the HR department to send over all the information of the employee necessary to calculate the bonus.</p> <p>6. The system then displays the bonus of the respective employee or employees along with the functionality to add it to gross salary or put it on hold.</p>
Exception Scenario	<p>Trigger event:</p> <ol style="list-style-type: none"> 1. The request to the HR department to send over employee information is denied. 2. The bonuses for a particular employee/employees are canceled by HR.
Qualities	<p>Safety</p> <p>Manageability</p> <p>Efficiency</p> <p>Accuracy</p>

Section	Content
Designation	UC-2
Name	Calculate Gross Salary of Employees
Authors	Usman, Mahad, Daniyal, Tayyba
Priority	Importance for system success: high Technological risk: high
Criticality	High
Source	Vision 1.0
Responsible	Usman (Domain Expert in Employee management)
Description	The system automatically generates the gross salary of each employee as soon as the new month starts. The system automatically takes the bonuses, penalties, fines, union dues, and taxes as input and calculates the gross salary of the employee along with a detailed gross salary.
Trigger event	The Accounts Manager wants to calculate the gross salaries of each employee.
Actors	Accounts Manager, Employee Pay information, System(Verification of User)
Pre-Condition	The Accounts Manager must be logged into the system. The accounts manager must have the confirmation before generating gross pay of all employees. The Information of each employee's leaves, bonuses, penalties, taxes, dues must be present in the system.
Post Condition	The gross salary of all employees is generated.
Result	Detailed Salary of each employee in tabular form having a clickable name of the employee to see detailed view about his gross pay. Along with that, there is the option to generate payslips.

Main Scenario	<ol style="list-style-type: none"> 1. The Accounts Manager logs into the system through proper verification. 2. The Accounts Manager navigates to the Payroll Management panel. 3. The Accounts Manager selects to generate gross salaries of all employees. 4. The Accounts manager once again confirms his identity to process. 5. The system then gathers information of all employees and their salary-related requirements. 6. The system then displays the gross salaries of all employees.
Alternative Scenario	5.1. If the information of any employee is missing then generate the gross salaries of other employees and show the gross pay of this employee as uncalculated.
Exception Scenario	<p>Trigger event:</p> <ol style="list-style-type: none"> 3. The system is not able to gather employee information. 4. The system is not able to calculate the gross salaries of the employees.
Qualities	<p>Accuracy</p> <p>Correctness</p> <p>Efficiency</p>

Section	Content
Designation	UC-3
Name	Generate Employee Pay Slips
Authors	Usman, Mahad, Daniyal, Tayyba
Priority	Importance for system success: high Technological risk: high
Criticality	High
Source	Vision 1.0
Responsible	Daniyal khan (Domain Expert in Payroll management)
Description	The system generates the payslips of the employees based on the gross salary of the employee.
Trigger event	The Accounts Manager wants to generate the payslips of the employees ready to be sent to the employee's bank account or to be converted to a cheque in printable form.
Actors	Accounts Manager, Employee Gross Salary information, System(Verification of User)
Pre-Condition	The Accounts Manager must be logged into the system. The accounts manager must have the confirmation before generating the payslips. The Information of each employee's gross pay(calculated or uncalculated both).
Post Condition	Employee Pay Slips are generated
Result	Payslips generated are ready to be sent over to the employee bank accounts or to be printed onto a cheque.

Main Scenario	<ol style="list-style-type: none"> 1. The Accounts Manager logs into the system through proper verification. 2. The Accounts Manager navigates to the Payroll Management panel. 3. The Accounts Manager selects to generate payslips of a particular employee or of all employees. 4. The Accounts manager once again confirms his identity to process. 5. The system then gathers information of respective employees' gross salaries to generate pay slips. 6. The system then generates the pay slips of the respective employees with an option to be sent over to their bank accounts or to be printed.
Alternative Scenario	<p>5.1. If the information of any employees' gross salary is missing or not generated then the gross salaries of the respective employees are automatically generated.</p> <p>6. The system then generates the payslips of the respective employees with an option to be sent over to their bank accounts or to be printed.</p>
Exception Scenario	<p>Trigger event: The payslips are not generated due to missing employee gross salary.</p>
Qualities	<p>Accuracy</p> <p>Correctness</p> <p>Reliability</p>

Section	Content
Designation	UC-4
Name	Manage employee attendance.
Authors	Usman, Mahad, Daniyal, Tayyba
Priority	Importance for system success: high Technological risk: medium
Criticality	Medium
Source	Vision 1.0
Responsible	Amna khan (Domain Expert in Employee management)
Description	The employee wants to mark his presence, turn in time and leave time.
Trigger event	The start of official timings triggers the employee to mark his attendance. While leaving the official premises the time is recorded by the android system.
Actors	Employee, System
Pre-Condition	The Employee must be logged in to the system. Location services, camera, GPS, and biometric services must all be enabled.
Post Condition	Attendance of the employees must be recorded and saved after the employees and system interact.
Result	Detailed attendance of the employee in tabular form having a clickable name of an employee to see a detailed view about his presence or absence.

Main Scenario	<ol style="list-style-type: none"> 1. The Employee logs into the system through proper verification. 2. The Employee navigates to the attendance panel. 3. The Employee scans his fingerprint or scans his face while GPS is enabled to verify his presence on official premises. 4. If the employee is leaving the official premises (checked through location services) his uptime hours and leaving time are automatically recorded. 5. The system then displays the marked attendance of the employee.
Alternative Scenario	If the employee is working from home then his location services are not needed to be recorded instead he can mark his presence by just logging into the system and fulfilling his daily goals.
Exception Scenario	<p>Trigger event:</p> <p>The employee is not on official premises and not working from home, then he will be marked absent.</p> <p>If the employee is logged in from official premises but his fingerprints and camera scans are unmatched then he is marked absent.</p>
Qualities	<p>Integrity</p> <p>Security</p> <p>Confidentiality</p>

Section	Content
Designation	UC-5
Name	Send pay stubs to the employee's bank accounts.
Authors	Usman, Mahad, Daniyal, Tayyba
Priority	Importance for system success: high Technological risk: high
Criticality	High
Source	Vision 1.0
Responsible	Tayyaba A. (Domain Expert in Payroll management)
Description	The system automatically dispatches the employee's pay stub to his respective bank account once the pay stub is generated.
Trigger event	The employee needs his salary by the start of the new month.
Actors	System and third-party verification.
Pre-Condition	The payslips of the employee must be generated.
Post Condition	The monthly salaries of the employees are sent over into their bank accounts.
Result	The employee gets his monthly salary.

Main Scenario	<ol style="list-style-type: none"> 1. The System by the start of the month sends a request to the Accounts manager to send over pay stubs to the employee account. 2. The Account manager verifies the request. 3. The system automatically sends the employee salaries over to their bank accounts.
Alternative Scenario	<p>If the payslip of the user is not generated then generate the payslip of the employee.</p> <p>Then automatically generate the paystub and send it over to the respective bank accounts.</p>
Exception Scenario	Trigger event: The Accounts manager declines the request of the system.
Qualities	<p>Correctness</p> <p>Accuracy</p> <p>Confidentiality</p> <p>Reliability</p>

Section	Content
Designation	UC-6
Name	Run HR management report.
Authors	Usman, Mahad, Daniyal, Tayyba
Priority	Importance for system success: high Technological risk: high
Criticality	High
Source	Vision 1.0
Responsible	Kaleem Mustafa (Domain Expert in HR management)
Description	The system automatically generates the HR management report. The system automatically looks after the punctuality, performance, over-time hours, and problem areas of the employees to run their reports.
Trigger event	The Start of a new month triggers the system to generate HR reports. The Manager wishes to generate the report at any moment.
Actors	HR Manager, HR data department, System(Verification of User)
Pre-Condition	The Manager must be logged into the system. The HR data department must have all the resources to generate a report. The Information of each employee's HR report should be maintained, tracked, and present in the system.
Post Condition	The HR report of all employees is generated.
Result	Records of all the HR reports should be gathered in dashboards and they can either be manual or automatically generated.

Main Scenario	<ol style="list-style-type: none"> 1. The Manager logs into the system through proper verification. 2. The Manager navigates to the HR data department. 3. The Manager prescribes the department to generate a report in the appropriate way (manual/automated). 4. The manager once again confirms his identity to process. 5. The system then collects information of all employees. 6. The system then runs the management report. 7. A report is displayed in tabular form, along with the progress graphs of each department.
Alternative Scenario	If the information of any employee is missing then generate the report of other employees and show the report of this employee as ungenerated or missing.
Exception Scenario	Trigger event: <ol style="list-style-type: none"> 1. The identity of the Manager is not verified in the case of manual generation of reports.
Qualities	<p>Accuracy</p> <p>Correctness</p> <p>Efficiency</p>

Section	Content
Designation	UC-7
Name	Application of leave by an Employee
Authors	Usman, Mahad, Daniyal, Tayyba
Priority	Importance for system success: high Technological risk: low
Criticality	low
Source	Vision 1.0
Responsible	Usman khan (Domain Expert in Employee management)
Description	Gathers information and generates a leave application that may include sick leave, casual leave, religious holiday leave, Bereavement leave, annual leave, Compensatory leave, to the human resource department on the behalf of the employee logged in.
Trigger event	The Employee wants a leave.
Actors	Employee
Pre-Condition	The Employee is logged into the system.
Post Condition	An application generated should be simultaneously sent to the Human Resources Department.
Result	The HR Manager approves or disapproves the application.

Main Scenario	<ol style="list-style-type: none">1. The Employee logs into the system.2. The employee then navigates to the leaves management panel.3. The employee then fills an application for leave.4. The application is then forwarded to the HR department.
Alternative Scenario	If the criticality of the leave is high and is an emergency leave then the employee is scheduled for an emergency meeting with the HR manager in order to verify leave manually and intime.
Exception Scenario	<p>Trigger event:</p> <p>The system automatically rejects the application for leave if the number of the leaves of the employee is already met by the employee.</p>
Qualities	<p>Accuracy</p> <p>Integrity</p>

Section	Content
Designation	UC-8
Name	Add an Employee
Authors	Usman, Mahad, Daniyal, Tayyba
Priority	Importance for system success: high Technological risk: low
Criticality	low
Source	Vision 1.0
Responsible	Daniyal Baig (Domain Expert in Employee Management)
Description	The HR department analyses the CV and the admission application of the applicant and adds him as an employee.
Trigger event	The HR Department accepts the application of the new applicant.
Actors	HR Manager, Incoming Employee, System(Verification of User)
Pre-Condition	The HR Manager must be logged into the system. The application of the applicant must be accepted.
Post Condition	A new employee is added.
Result	A new employee is added and his department is assigned.

Main Scenario	<ol style="list-style-type: none">1. The Manager logs into the system through proper verification.2. The Manager receives a request to add a new employee.3. The Manager then accepts the request to add a new employee.4. The employee is then added to the system.5. A record must be maintained so the manager knows about his hirings.6. The employee now performs further tasks.
Alternative Scenario	If the manager declines the request then the employee is not added.
Exception Scenario	Trigger event: The request is not sent over to the HR Manager by the HR Department.
Qualities	Maintainability

Section	Content
Designation	UC-9
Name	Manage Payroll ledger
Authors	Usman, Mahad, Daniyal, Tayyaba
Priority	Importance for system success: High Technological risk: High
Criticality	High
Source	Vision 1.0
Responsible	Gulraiz Ali (Domain Expert in PayrollManagement)
Description	The system automatically organizes, determines, and keeps track of all transactions and payment information for each employee or contractor who receives payments from the payroll department of a firm allowing business owners to quickly see how much money they've paid out, whom they've paid, and when.
Trigger event	The Accounts Manager wants to view the payroll manager and edit it.
Actors	The system, Accounts Manager
Pre-Condition	Accounts Manager is logged in. The payroll ledger is up to date.
Post Condition	The system has generated a Detailed report of all transaction activities.

Result	Overview of Organisation's payment info and Transactions along with generated graphs and financial progress report.
Main Scenario	<ol style="list-style-type: none"> 1. The Accounts Manager logs into the system through proper verification. 2. The Accounts Manager navigates to the Payroll Management panel. 3. The Accounts Manager navigated to the payroll ledger. 4. The Account Manager views, or updates any selected transaction in the ledger.
Alternative Scenario	The Accounts Manager generates a monthly or annual report and sends it over to the finance department to analyze and validate it.
Exception Scenario	<p>Trigger event:</p> <p>If the report analyzed by the finance department is not correct then a troubleshoot runs and finds the errors.</p>
Qualities	<p>Accuracy</p> <p>Correctness</p> <p>Maintainability</p>

Section	Content
Designation	UC-10
Name	Update an Employee
Authors	Usman, Mahad, Daniyal, Tayyaba
Priority	Importance for system success: High Technological risk: Medium
Criticality	low
Source	Vision 1.0
Responsible	Usman khan (Domain Expert in Employee Management)
Description	The HR manager inputs the information of the employee to be updated, and the system displays the employee's Information.
Trigger event	HR manager chooses to Update an employee's Info.
Actors	HR, System.
Pre-Condition	The HR must be logged in. The employee Information must be correct.
Post Condition	The employee's Info has been updated and saved.

Result	Updated information is also updated in the HR database.
Main Scenario	<ol style="list-style-type: none"> 1. The HR enters the Employee info. 2. The system fetches the employee data. 3. HR manager Updates the Employee's Info 4. The system displays the updated info after authentication of the HR manager (security credentials)
Alternative Scenario	If the HR manager rejects the updates then the previous information of the employee is retained.
Exception Scenario	<p>If the entered record is incorrect, the system won't proceed further and ask the HR manager to re-enter the information until successful entry.</p> <p>If the security credentials are not correct (three times entry), then the security team will be alerted and the HR manager account will be logged out.</p>
Qualities	<p>Integrity</p> <p>Maintainability</p>