Hotel Staff Shift and Payroll Management System

1)

A. Purpose or Justification of the Project

The purpose of this project is to develop a comprehensive shift and payroll management system for hotel staff. The project aims to optimize workforce management, reduce errors caused by manual processes, and save time for the human resources department.

The implementation of the system will enable the automatic calculation of working hours and wages, improve payroll accuracy, and ensure fair and transparent scheduling of shifts. Furthermore, it will enhance the hotel's overall efficiency, as managers will have a clearer view of staff availability and will be able to plan staffing needs more effectively.

B. "The measurable objectives of this project aim to ensure that the hotel staff shift and payroll management system is delivered on time, meets quality expectations, and achieves the desired operational improvements. Below are the key objectives and their success criteria, which will be used to evaluate the project's performance."

Objective	Success Criteria
Develop and launch a hotel staff shift and payroll management system by **December 31, 2025**.	The system is fully functional and deployed in production by the specified date, with no critical bugs reported during the first 2 weeks of use.
Reduce scheduling errors by **at least 80%** compared to manual processes within 3 months of system implementation.	Monthly HR reports show that scheduling conflicts or errors have decreased by 80% or more within 3 months after go-live.
Automate **100% of payroll calculations** based on staff shifts, overtime, and holidays.	Payroll for all employees is automatically calculated by the system with verified accuracy compared to manual calculations for 2 consecutive payroll cycles.
Train **all HR staff and managers (100%)** to use the system effectively before go-live.	At least 90% of participants score 80% or higher in the post-training evaluation test, and all users confirm they can perform required tasks.

C. High-Level Requirements

1. **Automated calculation of working hours and wages:** The system must automatically track and calculate staff working hours, including overtime, and generate accurate payroll statements.

2. **Real-time shift management:** The system must allow managers to schedule, modify, or confirm shifts easily, with the ability to notify staff in real-time.

3. **Reporting and analytics:** The system must provide dynamic reports regarding shift distribution, staff utilization, and total payroll expenses.

D. Assumptions and Constraints

Assumptions:

1. The hotel management will provide accurate and up-to-date staff data (availability, working hours, and wage rates).

2. The staff will have basic digital skills to use the new system effectively.

3. The Human Resources department and shift managers will fully cooperate during the development and testing phases of the system.

Constraints:

1. The project must be completed within a 3-month timeframe due to the upcoming tourist season.

2. The total budget for developing and implementing the system cannot exceed €20,000.

3. Access to historical employee data may be limited, which could slow down the data migration process.

E. High-Level Risks

The main risks of the project include:

1. **Technical risks**: Potential delays due to technical challenges during system development, such as software incompatibilities.

2. **Human resources risks**: Lack of training or resistance from staff to adopt the new system.

3. **Financial risks**: Possible budget overruns due to unforeseen requirements or additional needs.

4. **Delay risks**: Potential delays in implementation due to late data collection or delayed decision-making.

F. Milestone Schedule

1. **Project kick-off and requirements analysis** – Completion of the requirements gathering and analysis phase (Day 10).

2. **Design and prototype development** – Delivery of the initial prototype for testing (Day 30).

3. **Development completion and internal testing** – Final functionality testing and bug fixing (Day 50).

4. **Final delivery and staff training** – Delivery of the complete system and staff training (Day 60).

G. Summary Budget

The estimated total project budget is approximately **€30,000**, allocated as follows:

1. **Requirements analysis and design** – €5,000

2. **System development** – €15,000
3. **Internal testing and bug fixing** – €3,000
4. **Staff training and final delivery** – €4,000
5. **Contingency costs** – €3,000

2)

"The Work Breakdown Structure (WBS) for the project ‘Hotel Staff Shift and Payroll Management System’ is designed to illustrate all project deliverables and key activities. The breakdown is structured into levels, starting from the overall project (Level 1), followed by the main phases (Level 2), and finally detailing work packages (Level 3) to ensure that each activity is manageable and assignable."

WBS (Work Breakdown Structure)

Level 1 – Project

Hotel Staff Shift and Payroll Management System

Level 2 – Main Deliverables (Phases or Outputs):

- **Project Initiation & Planning**
- **System Design & Development**
- **Testing & Quality Assurance**
- **Implementation & Training**
- **Project Closure**

Level 3 – Subtasks for each Deliverable:

1. Project Initiation & Planning

1.1 Define project scope and objectives
1.2 Identify stakeholders and roles
1.3 Develop project charter
1.4 Create high-level schedule and budget
1.5 Risk identification (initial high-level risks)

2. System Design & Development

2.1 Gather detailed requirements from HR and management
2.2 Design database and workflow (shifts, payroll)
2.3 Develop core modules (shift management, payroll calculation)
2.4 Create user interface (manager and employee dashboards)
2.5 Integrate notifications (email/SMS)

3. Testing & Quality Assurance

3.1 Create test scenarios (shift scheduling, payroll)
3.2 Perform system functionality testing
3.3 Conduct user acceptance testing (UAT)
3.4 Fix bugs and optimize system performance

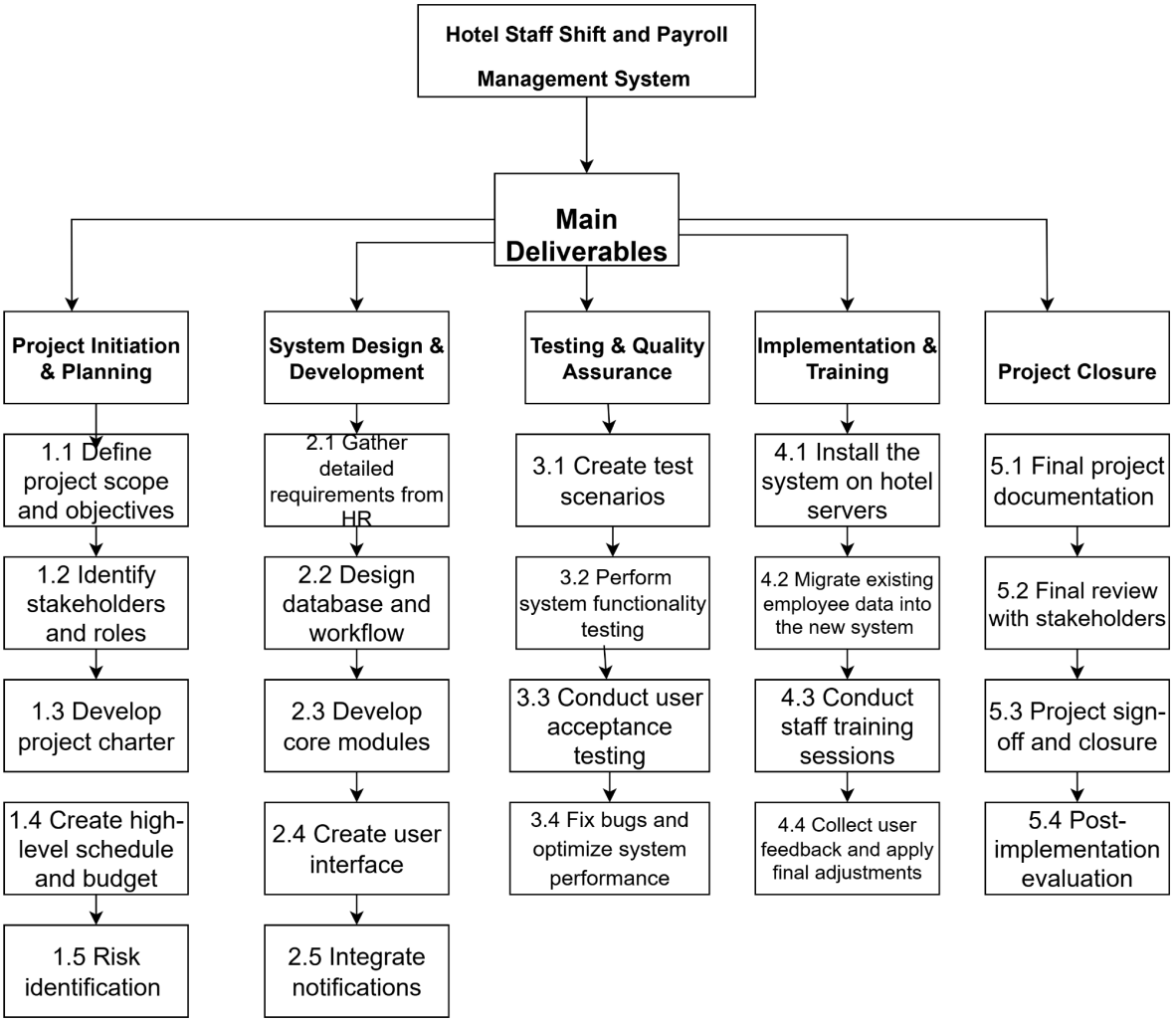
4. Implementation & Training

4.1 Install the system on hotel servers
4.2 Migrate existing employee data into the new system
4.3 Conduct staff training sessions (HR & managers)
4.4 Collect user feedback and apply final adjustments

5. Project Closure

5.1 Final project documentation (technical and user manuals)
5.2 Final review with stakeholders
5.3 Project sign-off and closure
5.4 Post-implementation evaluation (lessons learned)

Work Breakdown Structure (WBS)



3)

Project Activity Sequence

The activity sequence outlines the order in which the key project tasks will be performed. It is based on the Work Breakdown Structure (WBS) and ensures that each activity follows a logical and efficient flow. The table below includes at least ten activities, their unique WBS ID, and their respective predecessors.

WBS	Activity/Task name	Predecessor
1.1	Define project scope and objectives	-
1.2	Identify stakeholders and roles	1.1
1.3	Develop project charter	1.2
1.4	Create high-level schedule and budget	1.3
2.1	Gather detailed requirements from Hr	1.4
2.2	Design database and workflow	2.1
2.3	Develop core modules	2.2
3.1	Create test scenarios	2.3
3.2	Perform system functionality testing	3.1
4.1	Install the system on hotel servers	3.2
4.3	Conduct staff training sessions	4.1
5.1	Final project documentation	4.3

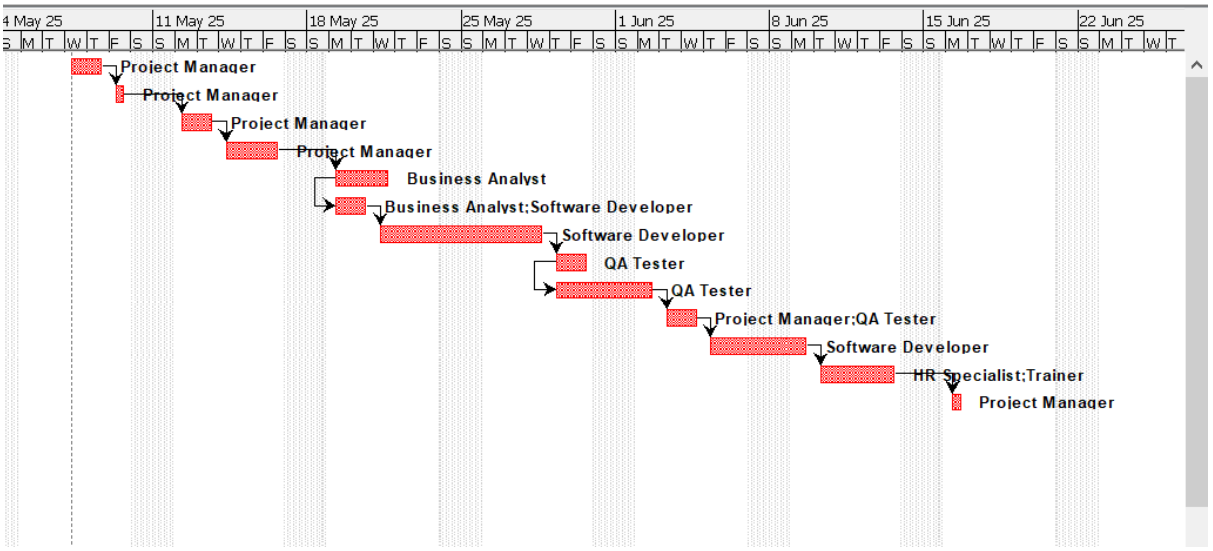
4)

Project Schedule

The following project schedule for the “Hotel Staff Shift and Payroll Management System” outlines the planned sequence, duration, and resource allocation for all major tasks. Each activity is linked to its predecessor to ensure a logical and efficient workflow. The schedule includes all deliverables from the Work Breakdown Structure (WBS) and provides start and finish dates for every task.

The Gantt Chart below visually represents the timeline, dependencies (FS and SS relationships), and assigned resources for each task, ensuring that the project can be completed within the planned timeframe.

	Name	Duration	Start	Finish	Predecessors
1	Define project scope	2 days	5/7/25, 8:00 AM	5/8/25, 5:00 PM	
2	Identify stakeholders and roles	1 day	5/9/25, 8:00 AM	5/9/25, 5:00 PM	1
3	Develop project charter	2 days	5/12/25, 8:00 AM	5/13/25, 5:00 PM	2
4	Create high-level schedule and	3 days	5/14/25, 8:00 AM	5/16/25, 5:00 PM	3
5	Gather detailed requirements	3 days	5/19/25, 8:00 AM	5/21/25, 5:00 PM	4
6	Design database and workflow	2 days	5/19/25, 8:00 AM	5/20/25, 5:00 PM	5SS
7	Develop core modules	6 days	5/21/25, 8:00 AM	5/28/25, 5:00 PM	6
8	Create test scenarios	2 days	5/29/25, 8:00 AM	5/30/25, 5:00 PM	7
9	Perform system functionality t	3 days	5/29/25, 8:00 AM	6/2/25, 5:00 PM	8SS
10	Conduct user acceptance testi	2 days	6/3/25, 8:00 AM	6/4/25, 5:00 PM	9
11	Install the system on hotel ser	3 days	6/5/25, 8:00 AM	6/9/25, 5:00 PM	10
12	Conduct staff training sessions	4 days	6/10/25, 8:00 AM	6/13/25, 5:00 PM	11
13	Final project documentation	1 day	6/16/25, 8:00 AM	6/16/25, 5:00 PM	12



5) Project Budget for “Hotel Staff Shift and Payroll Management System”

The following budget outlines the estimated costs of the project, divided by week and by cost category. These estimates were calculated based on the expected work hours of the project team (Project Manager, Business Analyst, Developer, QA Tester), training sessions for staff, and general overhead expenses.

Budget Table (by Week)

Cost Category	Week 1	Week 2	Week 3	Week 4	Week 5	Total
Labor (PM, Developer, QA)	€1,200	€1,500	€1,800	€2,200	€1,500	€8,000
Materials / Software (Licenses, hosting)	€300	€300	€300	€200	€200	€1,300
Staff Training	€0	€0	€500	€300	€200	€1,000
Travel / Transportation	€150	€150	€150	€150	€150	€750
Overheads	€200	€200	€200	€200	€200	€1,000
Weekly Total	**€1,850**	**€2,150**	**€2,950**	**€2,850**	**€2,250**	**€12,050**

Budget Discussion

The total estimated cost for the project is €12,050 over a period of 5 weeks. The budget was prepared using the bottom-up estimation method, taking into account the average daily cost per team member (e.g., €300/day for the Project Manager), required software licenses, and staff training expenses. If this budget were presented to senior management, I would emphasize that the costs are fully aligned with the project schedule and deliverables outlined in the WBS.

6)

The Responsibility Assignment Matrix (RACI) defines the roles and responsibilities of each team member for the main deliverables of the “Hotel Staff Shift and Payroll Management System” project. Each task is assigned to a person who is Accountable (A), Responsible (R), Consulted (C), or Informed (I), ensuring clarity of ownership and smooth collaboration among stakeholders.

Proposed RACI Table

Task/Deliverable	Project Manager	Business Analyst	Software Developer	QA Tester	HR Specialist / Trainer
Define project scope & objectives	A	C	I	I	I
Gather detailed requirements	C	A	I	I	I
Develop core modules	I	C	A	C	I
Perform system testing	I	I	C	A	I
Conduct staff training sessions	I	I	I	C	A
Final project documentation	A	C	I	I	I

RACI Legend

- R (Responsible): Executes the task.
- A (Accountable): Ultimately answerable for task completion (only one per task).
- C (Consulted): Provides input or expertise.
- I (Informed): Is kept informed of progress/results.

7) Project Risks and Responses

The following table identifies the key risks for the “Hotel Staff Shift and Payroll Management System” project. Each risk includes mitigation strategies to reduce its probability or impact, contingency plans in case it occurs, and an assessment of its impact, likelihood, and overall priority.

#	Risk Description	Mitigation	Contingency	Impact	Likelihood	Priority
1	Delay in gathering requirements from HR	Schedule early interviews and confirm timelines	Add an extra buffer week for requirements	Medium	Medium	Medium
2	Technical difficulties during development	Conduct code reviews and early prototypes	Allocate extra developer hours for fixes	High	Medium	High
3	Key team member unavailable	Cross-train team members	Hire temporary external consultant	High	Low	Medium
4	Server downtime or infrastructure issues	Use cloud backups and monitoring	Switch to backup server	Medium	Low	Medium
5	Delays in testing or UAT	Involve QA early and use automated testing tools	Re-schedule testing with priority	High	Medium	High
6	Staff resistance to using the new system	Conduct early workshops and training demos	Provide additional training sessions	Medium	Medium	Medium
7	Cost overrun due to scope changes	Implement strict change control process	Reduce low-priority features or requests	High	Medium	High

Risk Assessment Discussion

The risks listed above were assessed based on their potential impact on project objectives and the likelihood of occurrence, using a qualitative evaluation (Low, Medium, High). The mitigation strategies aim to proactively reduce both the probability and the effect of each risk, while contingency plans outline specific actions to be taken if the risks materialize. The priority level was determined by combining impact and likelihood, ensuring that high-priority risks are closely monitored and addressed throughout the project lifecycle.