IT314: Software Engineering
Group-17

Lab-3: Task-3
(Sprints)

GROUP MEMBERS:

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SPRINTS:

Sprint 1: Setup and Basic User Authentication (Week 1: Sept 8 - Sept 14)

- **Objectives**:
  - Set up the project structure (frontend and backend)
  - Implement user registration (Admin creates employee accounts)
  - Implement login/logout functionality for all users
  - Ensure basic security (password hashing, encrypted connections)
- **Deliverables**:
  - Basic project structure with authentication flow complete

Component Type	Description	Count	Weight	Total FP
ILF	Employee File	1	10	10
EIF	Global State Table	1	7	7
EI	● Employee Registration Form ● Login Form	2	4	8
EO	● Registration Confirmation ● Logout Confirmation	2	5	10
EQ	Login Verification Query	1	4	4
Total unadjusted FPs				39 FP

Sprint 2: Profile Management (Week 2: Sept 15 - Sept 21)

- **Objectives**:
  - Implement "Update Profile Details" functionality for employees
  - Create "View Profile" functionality for all roles (Admin, HR, Manager, Employee)
  - Ensure data validation and error handling for profile updates
- **Deliverables**:
  - Functional user profiles with update and view capabilities

Component Type	Description	Count	Weight	Total FP
ILF	Employee Profile Data	1	10	10
EIF	Roles Data	1	7	7
EI	Update Profile Input Form	1	4	4

EO	Profile View	1	5	5
EQ	● Query Profile Data for Display ● Update Validation	2	4	8
Total unadjusted FPs				34 FP

Sprint 3: Attendance Tracking (Week 3: Sept 22 - Sept 28)

- **Objectives**:
  - Implement "View Attendance Records" for employees
  - Develop attendance tracking feature (check-in/check-out)
  - Ensure data display for daily, monthly, and yearly attendance records
- **Deliverables**:
  - Working attendance tracking and viewing feature for employees

Component Type	Description	Count	Weight	Total FP
ILF	Attendance Records	1	10	10
EIF	Global Attendance Summary	1	7	7
EI	Check-in / Check-out	2	4	8
EO	● Daily Attendance Report ● Monthly Attendance Report ● Yearly Attendance Report	3	5	15
EQ	Attendance Status Query	1	4	4
Total unadjusted FPs				44 FP

Sprint 4: Leave Management (Week 4: Sept 29 - Oct 5)

- **Objectives**:
  - Implement "Apply for Leave" for employees
  - Implement "Approve/Deny Leave Requests" for Managers
  - Integrate leave balances and automatic updates upon approval/denial
- **Deliverables**:
  - Functional leave management system for both employees and managers

Component Type	Description	Count	Weight	Total FP
ILF	Leave Records	1	10	10
EIF	Employee Profile Data	1	7	7
EI	Leave Application Form	1	4	4
EO	● Display Leave Balance ● Status Updates	2	5	10
EQ	● Query Leave Records ● Status	2	4	8
Total unadjusted FPs				39 FP

Sprint 5: Admin Features - Account Management (Week 5: Oct 6 - Oct 12)

- **Objectives**:
    - Implement "Create New Employee Account" feature for Admin
    - Implement "Delete Employee Profile" feature for Admin
    - Ensure data validation and confirmation for account deletion
- **Deliverables**:
    - Employee account creation and deletion fully functional

Component Type	Description	Count	Weight	Total FP
ILF	Employee Accounts Database	1	10	10
EIF	Global Employee Directory	1	7	7
EI	● Create New Employee Account Form ● Delete Employee Profile Form	2	4	8
EO	● Account Creation Confirmation ● Account Deletion Confirmation	2	5	10
EQ	Employee Search Query	1	4	4
Total unadjusted FPs				39 FP

Sprint 6: Notifications and Announcements (Week 6: Oct 13 - Oct 19)

- **Objectives**:
  - Implement "Send Notifications" for managers (team updates)
  - Implement "Announcements" for HR (company-wide updates)
  - Ensure email and system dashboard notification integration
- **Deliverables**:
  - Notifications and announcement systems working across all roles

Component Type	Description	Count	Weight	Total FP
ILF	Notifications and Announcements Records (maintained by the system)	1	10	10
EIF	Employee Profile Data (referenced but not maintained by the notification system)	1	7	7
EI	Compose Notification/Announcement Form	1	4	4
EO	• Send Notifications • Announcements	2	5	10
EQ	Query Notifications/Announcements for Display	1	4	4
Total unadjusted FPs				35 FP

Sprint 7: Salary and Bonus Management (Week 7: Oct 20 - Oct 26)

- **Objectives**:
  - Implement "Manage Salaries and Bonuses" for Admin
  - Implement "Submit Performance-Based Bonus Request" for employees
  - Ensure correct calculations for total pay (salary + bonus)
- **Deliverables**:
  - Salary and bonus management system implemented

Component Type	Description	Count	Weight	Total FP
ILF	Salary and Bonus Records	1	10	10
EIF	Global Employee salary Records	1	7	7
EI	Manage Salaries and Bonuses	1	4	4

	Form			
EO	● Salary Confirmation ● Bonuses Confirmation	2	5	10
EQ	Salary and Bonus Query	1	4	4
Total unadjusted FPs				35 FP

Sprint 8: Performance Tracking and Security (Week 8: Oct 27 - Nov 2)

- **Objectives**:
  - Implement "Track Employee Performance" for managers
  - Build a performance review dashboard and historical data display
  - Implement "EMS Security" (audit logs, encrypted sensitive data, unauthorized access tracking)
- **Deliverables**:
  - Performance tracking system and security features in place

Component Type	Description	Count	Weight	Total FP
ILF	Performance Records	1	10	10
EIF	Historical Performance Data	1	7	7
EI	Track Employee Performance Form	1	4	4
EO	● Performance Review Dashboard ● Historical Data Display	2	5	10
EQ	● Performance Status Query ● Security Logs Query	2	4	8
Total unadjusted FPs				39 FP

Sprint 9: Final Testing and Debugging (Week 9: Nov 3 - Nov 9)

- **Objectives**:
  - Conduct final testing across all implemented features
  - Perform debugging and resolve any outstanding issues
  - Prepare the system for final deployment

- **Deliverables**:
  - Fully tested and debugged Employee Management System, ready for deployment

Component Type	Description	Count	Weight	Total FP
ILF	Test Records and Logs	1	10	10
EIF	Previously Implemented Features	0	7	0
EI	Bug Reports/Issue Logs	1	4	4
EO	• Test Results • Debugging Reports	2	5	10
EQ	• Query Test • Debug Logs for Analysis • Resolution	2	4	8
Total unadjusted FPs				32 FP

FOR ALL OF THE SPRINTS:

Sprint	Total Factor	CAF	UAF	FP
Sprint 1	42	1.07	39	41.73
Sprint 2	42	1.07	34	37.73
Sprint 3	42	1.07	44	47.08
Sprint 4	42	1.07	39	41.73
Sprint 5	42	1.07	39	41.73
Sprint 6	42	1.07	35	37.45
Sprint 7	42	1.07	35	37.45
Sprint 8	42	1.07	39	41.73
Sprint 9	42	1.07	32	34.24