Data Flow Diagrams (DFD) for Attendance Management System

The Attendance Management System consists of different modules such as Employee Registration, Attendance Tracking, Report Generation, and Viewing Attendance. Below are the Level 0 (Context Diagram) and Level 1 DFDs explaining the system's working.

Level 0 DFD (Context Diagram)

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| Admin/User |

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|

| (Register Employee, Mark Attendance, View Reports)

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| Attendance Management System |

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| (Employee Details, Attendance Records)

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| Employee Database |

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Entities:

1. Admin/User – Registers employees, marks attendance, views records, and downloads reports.

2. Attendance Management System – The system that stores, updates, and manages employee data.

3. Employees – Users whose attendance is tracked and managed.

Processes:

• Register Employee: Admin adds employee details.

• Mark Attendance: Attendance is recorded.

• View Attendance Report: Users can view/download reports.

Diagram Explanation:

• The Admin/User interacts with the Attendance Management System to register employees, mark attendance, view records, and download reports.

• The system stores employee details and updates attendance records.

• Employees interact indirectly, as their attendance data is updated by the system.

Level 1 DFD (Detailed Data Flow)

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| Admin/User |

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| (1.0) | | (2.0) | | (3.0) |

| Register Emp | | Mark Attend. | | View Attend. |

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| | |

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| Employee DB | | Attendance DB | | Attendance DB |

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| (4.0) Generate |

| Attendance Report |

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| Download CSV |

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At Level 1, we break the system into individual processes.

Processes & Data Flow:

1. Employee Registration

• Input: Admin enters Employee ID, Name, and Email.

• Process: Data is validated and stored in the Employee Database.

• Output: Employee is successfully registered.

2. Mark Attendance

• Input: Admin selects an employee and marks attendance.

• Process: Updates the Attendance Database with "Present" or "Absent" status.

• Output: Attendance is recorded.

3. View Attendance List

• Input: User requests the attendance list.

• Process: System fetches records from the Attendance Database.

• Output: Displays attendance records.

4. Download Report

• Input: User clicks the "Download Report" button.

• Process: System generates a CSV report containing employee attendance details.

• Output: A CSV file is downloaded.