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| **Project Title:** | **Library Management System** |
| **Course Title:** | **Software Construction & Development** |
| **Department:** | **Computing ( Software Engineering )** |
| **Submitted To:** | **Islam Abbasi** |

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| Field | Content |
| Use Case No. | UC1 |
| Name | User Authentication (Login / Logout) |
| Actor | Admin |
| Type | Primary |
| Short Description | Admin add the new staff member |
| Precondition | Admin is logged in |
| Post condition | New Staff Account is created |
| Normal Flow | 1. Admin enter staffs details 2. System validates and save the record. |
| Alternative Flows | A1.1. If required fields are missing, system prompts for completion. |

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| Field | Content |
| Use Case No. | UC2 |
| Name | Update the staff |
| Actor | Admin |
| Type | Primary |
| Short Description | Admin modifies existing staff information. |
| Precondition | Staff account exists. |
| Post condition | Updated details are saved. |
| Normal Flow | 1. Admin selects staff account. | 2. Admin edits details. 3. System updates the record. |
| Alternative Flows | A2.1. If invalid data is entered, system prompts for correction. |

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| Field | Content |
| Use Case No. | UC3 |
| Name | Remove Staff Account |
| Actor | Admin |
| Type | Primary |
| Short Description | Admin deletes a staff account. |
| Precondition | Staff account exists. |
| Post condition | Staff account is removed from the system. |
| Normal Flow | 1. Admin selects staff account 2. Admin confirms deletion. 3. System removes the account |
| Alternative Flows | A3.1. If account is linked to active tasks, system blocks  deletion. |

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| Field | Content |
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| Use Case No. | UC4 |
| Name | Monitor Book Issues/Returns |
| Actor | Admin |
| Type | Primary |
| Short Description | Admin reviews book transaction logs. |
| Precondition | System has recorded transactions. |
| Post condition | Admin views transaction history. |
| Normal Flow | 1. Admin accesses transaction logs.  2. System displays issue/return records.. |
| Alternative Flows | A4.1. If no records exist, system shows empty log message. | |

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| Field | Content |
| Use Case No. | UC5 |
| Name | Track Overdue and Fines |
| Actor | Admin |
| Type | Primary |
| Short Description | Admin checks overdue books and fines. |
| Precondition | System has overdue records |
| Post condition | Admin views fine details. |
| Normal Flow | 1. Admin opens fine tracking module. |  2. System displays overdue and fine data. |
| Alternative Flows | A5.1. If no fines are recorded, system displays “No fines available. |

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| Field | Content |
| Use Case No. | UC6 |
| Name | Oversee User Activity |
| Actor | Admin |
| Type | Primary |
| Short Description | Admin monitors user interactions with the system |
| Precondition | Users have interacted with the system. |
| Post condition | Admin views activity logs. |
| Normal Flow | 1. Admin selects user activity module.  2. System displays logs. |
| Alternative Flows | A6.1. If logs are unavailable, system shows error message. |  . |

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| Field | Content |
| Use Case No. | UC7 |
| Name | Generate Usage Reports |
| Actor | Admin |
| Type | Primary |
| Short Description | System has usage data. |
| Precondition | Report is generated and viewa |
| Post condition | Admin views activity logs. |
| Normal Flow | 1 Admin selects report type.  2 System generates and displays report. |
| Alternative Flows | A7.1. If no data is available, system shows “No data found. |  . |

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| Field | Content |
| Use Case No. | UC8 |
| Name | Generate Fine Reports |
| Actor | Admin |
| Type | Primary |
| Short Description | Admin creates reports on fines collected. |
| Precondition | Fine data exists. |
| Post condition | Report is generate |
| Normal Flow | 1. Admin selects fine report option.  2. System generates report. |
| Alternative Flows | A8.1. If report generation fails, system shows error message |
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| Field | Content |
| Use Case No. | UC9 |
| Name | Generate User Activity Reports |
| Actor | Admin |
| Type | Primary |
| Short Description | Admin generates reports on user behavior. |
| Precondition | User activity data exists. |
| Post condition | Report is generated |
| Normal Flow | 1. Admin selects activity report.  |2. System generates and displays report. |
| Alternative Flows | A9.1. If no activity is found, system shows “No activity recorded. |

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| Field | Content |
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| Use Case No. | UC10 |
| Name | Issue Books |
| Actor | Library Staff |
| Type | Primary |
| Short Description | Staff issues books to students |
| Precondition | Book is available; student account is active |
| Post condition | Book is marked as issued and due date is assigned. |
| Normal Flow | 1. Staff checks book availability.  2. Staff assigns due date.  3. Staff records transaction. . |
| Alternative Flows | A10.1. If book is unavailable, system shows Book not available. |

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| Field | Content |
| Use Case No. | UC11 |
| Name | Return Books |
| Actor | Library Staff |
| Type | Primary |
| Short Description | Admin generates reports on user behavior. |
| Precondition | Book is marked as returned and fines are calculated if overdue. |
| Post condition | Report is generated |
| Normal Flow | 1. Staff receives returned book.  2. System updates book status.  3. System calculates fines if overdue. |
| Alternative Flows | A11.1 If book is damaged, system flags for review. |