**Requirement Specification (Non-functional)**

|  |  |  |
| --- | --- | --- |
| **User Group** | **Country/Location/Count** | **Remarks** |
| Employees | S’pore/ Logic University/ 480 | Use the system to request stationery required by using requisition form during office hours. |
| Department Head | 10 | Use the system to approve/reject the stationery requisition forms which are applied from employees as well as viewing the report. |
| Department Representative | 10 | Use the system to submit the stationery requisition form to stationery store and manage collection information. |
| Store Clerk | 3 | Use the system to maintain the inventory stock control, manage the stationery disbursement lists, arrange the stationery delivery and generate the necessary report and forms. |
| Store Manager | 1 | Use the system to issue the stock adjustment voucher and generate reports. |
| Store Supervisor | 1 | Use the system to generate the table and bar chart reports and issue the stock adjustment voucher. |

1. **User Volume Table**
2. **Business Transaction Volume Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Business Transaction** | **Business Criticality** | **No. of user** | **Transaction information** | **Concurrently important Activities** |
| Log In | critical | 55 per week | 15 per week per user | 5 / hr |
| Log Out | critical | 55 per week | 15 per week per user | 5 / hr |
| Change Password | low | 4 per month | 2 per year per user | 2/ month |
| View Stationery Catalogue | moderate | 20 per week | 6 per week per user | 5/ hr |
| Withdraw Personal Requisition Request | low | 3 per week | 1 per week | 1 per day |
| Assign Temporary Department Head | low | 20 per year | 2 per year per department head | - |
| Assign Department Representative | low | 20 per year | 2 per year per department head | - |
| Assign Temporary Department Representative | low | 20 per year | 2 per year per representative | - |
| Request Stationery | critical | 50 per week | 5 per week per employee | 5 /hr |
| Check Requisition | moderate | 35 per week | 2 per week per employee | 3 /hr |
| Approve/Reject Requisition | critical | 10 per week | 1 per week per department head | - |
| Generate Reports | low | 12 per month | 1 per month per department head | - |
| Manage Collection Point | low | 20 per year | 2 per year per representative | - |
| Submit Requisitions to Store | critical | 10 per week | 4 per month per representative | - |
| Update Collection Details By Requisition Forms | critical | 10 per week | 4 per month per representative | - |
| Update Collection Details By Requisition Items | critical | 10 per week | 4 per month per representative | - |
| View Adjustment Voucher List | low | 2 per month | 2 per month | - |
| View Discrepancy List | moderate | 2 per month | 2 per month | - |
| View Supplier List | low | 1 per year | 1 per year | - |
| Create Discrepancy Report | moderate | 3 per month | 3 per month per clerk | - |
| Generate Stationery Retrieval List | critical | 3 per month | 3 per month per clerk | - |
| Receive Order Form | moderate | 3 per month | 3 per month per clerk | - |
| Create Purchase Order | moderate | 2 per month | 2 per month | - |
| View Stock Card | moderate | 20 per week | 6 per week per user | 5/ hr |

1. **Data Volume Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Business Entity Class** | **Source Document** | **Retention period** | **Target volume** |
| Supplier | Supplier List | 1 year | 1yr 10\*4\*12=480 |
| Department | Department List | 7 years | 1yr 10 dept. list |
| Item | Stationery Catalogue | 2 years | 90 items |
| Purchase Order | Stationery Purchase Order Form | 7 years | 24 per year \* 7 years = 168 forms |
| Purchase Order Details | Stationery Purchase Order Form | 7 years | 24 per year\*7 years \* 10 items \* 3 suppliers = 5040 items |
| Delivery Order | Delivery Order Form | 7 years | 24 per year \* 7 years = 168 forms |
| Delivery Order Details | Delivery Order Form | 7 years | 24 per year\*7 years \* 10 items \* 3 suppliers = 5040 items |
| Requisition | Stationery Requisition Form | 2 years | 50 emp \* 4 weeks \* 12 months =2400  2400\*2=4800requisition forms |
| Requisition Details | Stationery Requisition Form | 2 years | 50emp \* 4 weeks \* 12 months=2400  2400 \* 2 years = 4800 \* 7 average items = 33600 requisition forms |
| Collection Point | Department List | 7 years | 6 collection points |
| Requisition Collection | Requisition Collection List | 2 years | 50emp \* 4 weeks \* 12 months = 2400 requisition collection lists |
| Requisition Collection Details | Requisition Collection List | 2 years | 2400 \* 3 average details per list = 7200 lists |
| Stock Card | Stock Card List | 7 years | 90 items |
| Stock Card Details | Stock Card List | 7 years | 5040 (delivery order details) + 252 (stock adjustment details) + 23520 (disbursement) = 28812 lists |
| Stock Adjustment | Inventory Adjustment List | 7 years | 12 months \* 7 years = 84 lists |
| Stock Adjustment Details | Inventory Adjustment List | 7 years | 12 months \* 7 years \* 3 average items = 252 lists |
| Retrieval | Retrieval List | 7 years | 4 per week \* 10 dept \* 12 months \* 7 years \* 7 items = 23520lists |
| User | User File | 5 years | 700 users |
| Employee | User File | 5 years | 700 employees |
| Role | Role File | 7 years | 10 roles |
| Discrepancy | Discrepancy File | 7 years | 12 months \* 7 years = 84 files |
| Discrepancy Details | Discrepancy Details List | 7 years | 84 \* 5 = 420 lists |

1. **Security Requirement (From data point of view)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Actor  Business  Entity Class | Employees | Department Head | Department Representative | Store Clerk | Store Manager | Store Supervisor |
| Supplier |  |  |  | R | R | R |
| Department |  | U | U | R | R | R |
| Item | R | R | R | R | R | R |
| Purchase Order |  |  |  | C,R,U | C,R,U,D | C,R,U |
| Purchase Order Details |  |  |  | C,R,U | C,R,U,D | C,R,U |
| Delivery Order |  |  |  | C,R,U | C,R,U,D | C,R,U |
| Delivery Order Details |  |  |  | C,R,U | C,R,U,D | C,R,U |
| Requisition | C,R,U,D | C,R,U,D | C,R,U,D | R | R | R |
| Requisition Details | C,R,U,D | C,R,U,D | C,R,U,D | R | R | R |
| Collection |  | C,R,U | C,R,U | R,U | R,U | R,U |
| Requisition Collection |  | C,R,U | C,R,U | R,U | R,U | R,U |
| Stock Card |  |  |  | R | R | R |
| Stock Adjustment |  |  |  | R | C,R,U | C,R,U |
| Retrieval |  |  |  | C,R,U | C,R,U | C,R,U |
| User | R,U | R,U | R,U | R,U | R,U | R,U |
| Employee | R,U | R,U | R,U | R,U | R,U | R,U |
| Role | R | R | R | R | R | R |
| Discrepancy |  |  |  | C | C,R,U | C,R,U |

**5. Security Requirement (From use case point of view)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| User  Role(actor)  Biz Txn  (Use Case) | Emp | DH | DR | SC | SM | SS | S |
| Log in | \* | \* | \* | \*(main) | \* | \* |  |
| Log Out | \* | \* | \* | \*(main) | \* | \* |  |
| Change password | \* | \* | \* | \* | \* | \* |  |
| View Stationery Catalogue | \*(main) | \* | \* | \* | \* | \* |  |
| Assign Temporary Department Head |  | \* |  |  |  |  |  |
| Assign Department Representative |  | \*(main) | \* |  |  |  |  |
| Request Stationery | \*(main) | \* | \* |  |  |  |  |
| Check Requisition | \*(main) | \* | \* |  |  |  |  |
| Approve/Reject Requisition |  | \* |  |  |  |  |  |
| Generate Reports |  | \* | \* | \* | \* | \* |  |
| Manage Collection Point |  | \* | \*(main) |  |  |  |  |
| Submit Requisitions to Store |  | \* | \*(main) |  |  |  |  |
| Update Collection Details By Requisition Forms |  | \* | \*(main) |  |  |  |  |
| Update Collection Details By Requisition Items |  | \* | \*(main) |  |  |  |  |
| View Adjustment Voucher List |  |  |  | \* | \*(main) | \* |  |
| View Discrepancy List |  |  |  | \* | \* | \*(main) |  |
| View Supplier List |  |  |  | \* | \* | \*(main) |  |
| Create Discrepancy Report |  |  |  | \*(main) | \* | \* |  |
| Generate Stationery Retrieval List |  |  |  | \*(main) | \* | \* |  |
| Notify User |  |  |  |  |  |  | \* |
| Send email notification |  |  |  |  |  |  | \* |
| Create Purchase Order |  |  |  | \*(main) | \* | \* |  |
| Receive Order Form |  |  |  | \*(main) | \* | \* |  |
| View Stock Card |  |  |  | \*(main) | \* | \* |  |
| Withdraw personal requisition request | \*(main) | \* | \* |  |  |  |  |
| Assign Temporary Department Representative |  | \* | \*(main) |  |  |  |  |

Legend:

Emp – Employee

DH – Department Head

DR – Department Representative

SC – Store Clerk

SM – Store Manager

SS – Store Supervisor

S - Scheduler