**Recycling Machine Application**

**Functional and Non Functional Requirements**

| **Type** | **Requirement** | **Description** |
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| **Functional** | 1. Item Recognition | The system must identify the type of item returned (bottle or can) |
| **Functional** | 2. Quantity Recording | The system must record the number of items returned during a session. |
| **Functional** | 3. Receipt Generation | The system must generate a receipt showing item list, deposit value, and total refund amount. |
| **Functional** | 4. Refund Calculation | The system must calculate the total refund based on deposit values and quantities. |
| **Functional** | 5. Daily Summary Report | The system must allow the operator to generate a daily report of all items deposited. |
| **Functional** | 6. Deposit Value Configuration | The operator must be able to update the deposit value for each item type. |
| **Functional** | 7. Machine Monitoring | The system must continuously monitor the machine’s operational status. |
| **Functional** | 8. Alarm Triggering | The system must automatically trigger an alarm in case of malfunctions (e.g., jam, no paper). |
| **Functional** | 9. Session Management | The system must handle customer sessions from start to finish, including item input and receipt printing. |
| **Functional** | 10. Operator Access Control | The system must allow only authorized operators to modify configurations or reset alarms. |
| **Non-Functional** | 1. Reliability | The system should ensure continuous and error-free operation during customer sessions. |
| **Non-Functional** | 2. Performance | The system must recognize and process returned items quickly (within seconds). |
| **Non-Functional** | 3. Security | Only authorized personnel should have access to system configuration and reports. |
| **Non-Functional** | 4. Usability | The interface must be simple and user-friendly for both customers and operators. |
| **Non-Functional** | 5. Maintainability | The system should allow easy software and configuration updates when deposit values or machine functions change. |