## Case Study # 02: Recycling Machine Application

| **Functional Requirements** | **Non-Functional Requirements** |
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| 1. Identify the type and quantity of bottles and cans returned by customers during a session. | 1. The system must operate continuously during business hours with minimal downtime. |
| 2. Generate receipts for customers listing deposited items, deposit values, and total refund amount. | 2. The system should respond to customer actions within 2 seconds for a smooth experience. |
| 3. Allow operators to view the number of returned bottles and cans throughout the day. | 3. The system must ensure data accuracy in recording returned items and refunds. |
| 4. Enable operators to modify system configurations such as deposit values for items. | 4. The receipt printer must have a reliability rate of 99.5% to avoid frequent failures. |
| 5. Monitor machine status and trigger alarms when issues occur (e.g., stuck cans or empty receipt rolls). | 5. The system must provide secure access controls for operators to prevent unauthorized changes. |