**Payment System: Prevented Scenarios**

This system enforces payment rules and prevents inconsistent or invalid payment states. Below are the scenarios that the system detects and disallows:

**1. Duplicate Full Payment**

* Prevents creating any new transaction(tuition) if the student has already completed a **full payment** (Full Payment item exists).

**2. Multiple Transactions After Full Payment**

* Blocks any additional transactions for tuitions once the student’s total payments meet the full amount due.

**3. Pending Transaction Restrictions**

* If there is an existing **pending transaction** involving key payment types (Downpayment, 1st Quarter, 2nd Quarter, 3rd Quarter, 4th Quarter), **no new transactions** for these payment types or **Full Payment** are allowed until the pending transaction is resolved.

**4. Enforce Downpayment First**

* Students must complete the **downpayment** before being allowed to pay quarterly installments, unless the student opts for a full payment upfront.

**5. Sequential Quarterly Payments**

* Quarterly payments must be made in order — you cannot pay for the 2nd quarter without fully paying the 1st quarter, and so forth.

**6. Prevent Negative Balances**

* Ensures that payments never exceed the total amount due. Overpayments beyond the total balance are disallowed.

**7. Overpayment Rollover Among Quarters**

* Supports **overpayment on any quarter**, where excess payment on a quarter is automatically applied to the next quarter(s).
* **Example:** If the 1st quarter requires 2,500 pesos and the student pays 3,000 pesos, the extra 500 pesos reduces the amount owed on the 2nd quarter.

**8. Sundries Payments Are Always Allowed**

* Payments for **sundries items** (e.g., uniform, field trip) can be made regardless of the status of tuition-related payments or pending transactions.

**9. Partial Payments Validation**

* Ensured that the amount input in each transaction item is never zero or negative, to avoid meaningless or invalid transactions.

Must add

**Expired Pending Transactions**  
Optionally, if a pending transaction remains unresolved for too long, consider flagging or expiring it, to avoid perpetual blocking.