**Test Logic, requirements check and Test Scenarios Analysis  
  
  
Test scenarios 1:**  
  
Test in a Blank DB **Before balance   
Cases:**

1. 1. Before balance Data will be 0, as opening account balance 0 and after one transaction,   
   Balance After will be the transaction amount summary
2. It will account for specific calculations for all transactions/operations.
3. Balance before = The amount before Last transaction/operation of the account.

**Test scenarios 2:**

Test in a Blank DB **Turnover  
 Cases:**

1. After First Transaction, turnover will be 0. Because Turnover is calculating the last account transaction summary, So that the balance before is 0 also the turnover will be 0.
2. After the 2nd transaction, Turnover will be the first transaction amount summary.  
     
   **Like:**  
   **id account\_id amount date turnover**

**1 1 100 12:00 0**

**2 1 -20 12:02 100**

1. Similarly 3rd Transaction, Turnover will be the 2nd transaction Amount summary.

**Test scenarios 3:  
  
Turnover Logic**

**Cases:**

1. So the turnover logic is:  
    Last balance after = = Current Turnover
2. Last Turn over ( if 100) + Last Transaction ( if -20) = Current turnover will be = 80
3. Previous Balance after, (when one transaction complete) = Current Turnover
4. Previous Balance after, (when one transaction complete) = Current Balance before
5. Previous Date Transaction when complete, all over turnover amount will be updated from all previous calculation  
     
    **For example:**

**id account\_id amount date turnover**

**1 1 100 12:00 0**

**2 1 -20 12:02 100**

**3 2 50 12:04 0**

**4 1 -30 12:06 80**

**Test scenarios 4:**

**Test in a Blank DB balance after**

**Cases:**

1. Balance after will show the last transaction amount summary.

**Test scenarios 5:**

**Balance After:**

**Cases:**

1. Last Turnover plus last transaction summary will the Current Balance After.
2. It will account for specific calculations for all transactions/operations.

**Test scenarios 6:**  
 **Date Search**

**Cases:**

1. When Search by one specific date, it will show only one date results for all operation of all account
2. When Date Search for a specific account ID, it will show only one account’s operation result
3. Date range when searching the transaction will show depending on this search and balance before and after will be updated by the Range’s limit.

**Test scenarios 7:**

**Previous Date operations**

**Cases:**

1. When any account’s operation happened and included in the previous date all turnovers of the beginning date operation’s will be recalculated and updated.
2. If the Past date will exceed the limit from the calendar by giving input from API or somehow, it will show error by default.

**Like:**  
**id account\_id amount date turnover**

**1 1 100 12:00 0**

**2 1 -20 12:02 80**

**3 2 50 12:04 0**

**4 1 -30 12:06 60**

**5 1 -20 12:01 100**

**Test scenarios 8:**

**Last Transaction balance**

**Cases:**

1. Balance after: after last transaction account balance summary
2. Balance Before: Before last transaction account balance summary
3. 0/-ve Balance also possible here
4. Maximum and minimum balance depends on limit of DB

**Test scenarios 9 :  
  
Delete operation ( if allowed )**

**Cases:**

1. If you delete any data from the DB, the calculation for that account transaction will be removed and updated.

**Test scenarios 10:**

**Future Date operations**

**Cases:**.

1. As this is not defined yet, if Future date data has been inserted it will be passed.
2. If the Future date will exceed the limit from the calendar by giving input from API or somehow, it will show error by default.

**Test scenarios 11:**

**Exception/ Error/ System failure handling**

**Cases:**

1. Maximum digit Amount transactions if a few times happened, Turnover calculation summary will be bigger. That’s why if it is not handled in the turnover Data type limit, it will overflow.

Like, Here decimal**(16,6)** are given for both Turnover and Amount digit, so that it is clear that it will overflow. If system has not proper exception handling system here, it will be crashed

1. If invalid data is given, it will show that error message and will not accept.

Like: if wrong currency given here, like BDT:  
It will not accept by giving error, as this is not supported and allowed here except EUR,

1. If Maximum users will enter in this system at a time and check for amount/ id search it needs to handle the scenarios. If it can not handle it, the system will be failed.

**Test scenarios 12:**

**All Operations status for the statement page**

**Cases:**

1. Balance before should not calculate for all account
2. Balance after should not calculate for all account
3. All account’s operations details will show with transactions amount, date and currency by default.
4. Pagination will show as the limit of numbers in the page view

**Test scenarios 13:**

**Negative balance/ Zero Balance**

**Cases:**

1. As negative balance is allowed it will be allowed
2. As Zero is also allowed, it will show
3. As a negative amount can be, so the igit calculation will not take the sign as a separate digit. So sign limit for maximum can be skipped.
4. Initial Balance before and Turnover always show 0 for any specific account ID.

**Test scenarios 14:**

**Time Zone and Timestamp input**

**Cases:**

1. Input time depends on the server time / system time zone, otherwise input time will be changed by time zone difference value.
2. Input timestamp value as the time format of the system, otherwise it will show an error or don't take the value.
3. **The date** represents when the operation happened in the UNIX timestamp, so it will not take other inputs and will show error

**Account ID:**

1. **account\_id** can be anything,
2. account is created automatically if it does not exist yet. So that if blank input is given for account ID, it will generate automatically.

**Basic Check list:**

|  |
| --- |
| Search By Account Specific Account ID |
| Check By one Account |
| Check By multiple Account |
| Check Balance Before |
| Check Balance After |
| Check By One Date |
| Check in a date range |
| Check by negative balance in a account |
| Check by 0 balance |
| Check by Maximum Balance |
| Check Balance input in previous date |
| Check turnover for specific account |
| Search by Not Existing Account Number |
| Check by past date |
| Check by Future date |
| Check by Special Character  Check by all limit for all data type and Data limit |
| Check after delete some operations from DB |
| Check by invalid data input |
|  |
| Check by different currency input |
| Check by time hour, min and sec |
| Search by Blank input |