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Assignment#1

Brick kiln Management

Q 1.Explain the case study of the problem (minimum 400 words)

Brick kiln Plus is the Brick kiln Management Software that can manages all kind of brick kiln works. Through this software you can manages your stock, pakka, kaccha, raw material, and salary of the employees and finished product. Days are gone when brick kiln owners used to examine the books written by accountants to get the thorough detail of raw and finished bricks and tiles. This software helps you in maintaining the brick kiln work easily and accurately. After development of this software there is no need to examine the books or written the books to maintain the data or to keep the record of kaccha, pakka, raw material, finished product, waste material, salary of the employees and so on. The Brick kiln management system has following functionality Stock Management, Order Booking, Account Management, Attendance & Salary Management, Agent Management, Vehicle Management, Sale/Purchase Management, Rapid and Powerful Searches

1. **Stock Management:**
   It keeps record of Kacha and Pakka stock using stock management. Also keeps complete inventory of material such as Kahi, Balcha etc. which we issue to labor. Track consumption of stock like diesel, sand etc. by auto consumption or manually. See various number of reports related to stock like stock ledger, stock summary, location wise stock reports and many more important reports.

2. **Order Booking:**
   Pre booking of order can be maintained and various information of order can be saved for example: quantity, type of brick, committed rate and amount. At the time of sale software automatically deducts delivered items from the order and keep record of all the transactions done under that order.

3. **Account Management:**
   In account management you can manage everything that is needed in accounts like incomes, expenses etc. It has a strong management of account and also have multiple number of reports related to accounts like trial balance, balance sheet, and profit loss statement etc.

4. **Attendance and Salary Management:**
   With software you can mark attendance of employees and can make salary for them. Salary will be automatically calculated as per attendance.

5. **Vehicle Management:**
   It keeps track of sale done through vehicle, expenses done on vehicles and also gives report of profit/loss vehicle wise. All vehicle information can be added like insurance number, manufacturer etc.

Q2.Identify the functions (at least 3) from the case study and there must me at least one function that takes 3 parameters.

- **Stock_Management**(kacha_Stock, Pakka_stock, Diesel)
- **Order_Booking**(quantity, committed_rate)
- **Account_Management**(incomes, expenses)

Q3. Black box Testing

a) **Using worst case BVA, identify test cases of each function and list down all test cases.**

1: Test case of Stock_Management

Ans: No of test cases are $5^n = 5^3 = 125$
$10000 <= kacha\_stock <= 100000$
$20000 <= Paka\_stock <= 200000$
$500L <= kacha\_stock <= 1500L$

Test cases:

Case	a	b	c
1	10000	20000	500L
2	10000	20000	501L
3	10000	20000	1000L
4	10000	20000	1499L
5	10000	20000	1500L
6	10000	20001	500L
7	10000	20001	501L
8	10000	20001	1000L
9	10000	20001	1499L
10	10000	20001	1500L
11	10000	100000	500L
12	10000	100000	501L
13	10000	100000	1000L
14	10000	100000	1499L
15	10000	100000	1500L
16	10000	199999	500L
17	10000	199999	501L
18	10000	199999	1000L

19	10000	199999	1499L
20	10000	199999	1500L
21	10000	200000	500L
22	10000	200000	501L
23	10000	200000	1000L
24	10000	200000	1499L
25	10000	200000	1500L
26	10001	20000	500L
27	10001	20000	501L
28	10001	20000	1000L
29	10001	20000	1499L
30	10001	20000	1500L
31	10001	20001	500L
32	10001	20001	501L
33	10001	20001	1000L
34	10001	20001	1499L
35	10001	20001	1500L
36	10001	100000	500L
37	10001	100000	501L
38	10001	100000	1000L
39	10001	100000	1499L
40	10001	100000	1500L
41	10001	199999	500L
42	10001	199999	501L
43	10001	199999	1000L
44	10001	199999	1499L
45	10001	199999	1500L
46	10001	200000	500L
47	10001	200000	501L
48	10001	200000	1000L
49	10001	200000	1499L
50	10001	200000	1500L

2: Number of Test case of Order_Booking

Ans: No of test cases are $5^n = 5^2 = 25$
$2000 <= Quantity <= 900000$
$4500 <= commited\_rate <= 6500$

Test cases:

{<2000,4500>,<2000,4501>,<2000,5500>,<2000,6499>,<2000,6500>,<2001,4500>,<2001,4501>,<2001,5500>,<2001,6499>,<2001,6500>,<45000,4500>,<45000,4501>,<45000,5500>,<45000,6499>,<45000,6500>,<89999,4500>,<89999,4501>,<89999,5500>,<89999,6499>,<89999,6500>,<90000,4500>,<90000,4501>,<90000,5500>,<90000,6499>,<90000,6500>}

3: Number of Test case of Account_Managment

Ans: No of test cases are $5^n = 5^2 = 25$
$1000 <=$ incomes $<= 1000000$
$50000 <= kacha\_stock <= 500000$

Test cases:
{<1000,50000>,<1000,50001>,<1000,250000>,<1000,499999>,<1000,500000>,<1001,50000>,<1001,50001>,<1001,250000>,<1001,499999>,<1001,500000>,<500000,50000>,<500000,50001>,<500000,250000>,<500000,499999>,<500000,500000>,<999999,50000>,<999999,50001>,<999999,250000>,<999999,499999>,<999999,500000>,<1000000,50000>,<1000000,50001>,<1000000,250000>,<1000000,499999>,<1000000,500000>}