CAPITAL UNIVERSITY OF SCIENCE & TECHNOLOGY, ISLAMABAD

Assignment #01

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Section 1

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Software Quality Engineering

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Software Quality Engineering

Case Study:

This system will be designed to improve Bakery Management system. Now a days no one has time to maintain the record and save it manually. This system will help for maintain the record and save it easily.

The purpose of this document is to provide the staff which manage the system record easily and access it by single click. They do not have to maintain it manually and save it physically. Everyone is busy now a days, no one has time to search the record register or paper by paper. As well as the record history such as (Sale, purchase, expense etc.) will be saved on this system so every time when manager want to access it, he can get access on this record easily and generate reports by single click. The software includes maintaining the record of employee sale purchase expense etc.

And it well also maintain the security of data and software interfaces such as (Admin, sale, reports etc.)

This system will reduce staff extra hard work. Staff doesn't have to maintain the record manually. It will save a lot of time.

Functions:

Login (String Username, String password);

This function verifies the username and password entered by the user. And if the username and Password doesn't match with the username and Password which save in the database then the system will ask enter again then user will re-enter the username and password till he enters the correct username and password.

Get Reports (int Account No., Date date);

In this function the user will generate the report. He will enter account number or select date for the number. Then the system will generate the report of specific account or date.

Register Employee (String name, String password, int emp_id);

This function allows Admin to register the employee in the system. He will have to enter name, password and emp_id of employee. Then he will get registered in the system.

Software Quality Engineering

Black box Testing:

Worst BVA:

Function 1:

Total cases = 5 ^ 1 = 5

Min: 0

Min+1: 1

Normal: 50000

Max -1: 99998

Max: 1000

Case	pin	Expected output
1	0	Invalid
2	24324	Valid
3	34643	Valid
4	59786	Valid
5	99999	Invalid

Function 2:

Total cases = 5 ^ 1 = 5

Min: 1

Min + 1: 2

Normal: 5555

Max-1: 9998

Max: 9999

Case	Account No.	Expected output
1	10	Valid
2	1000	Valid
3	1	Invalid
4	5000	Valid
5	9999	Invalid

Function 3:

Input values of Account:
Min: 1

Min + 1: 2

Normal: 500

Max-1: 9998

Max: 9999

Input values of Password:
Min: 0

Min+1: 1

Normal: 50000

Max -1: 99998

Max: 99999

Input values of Emp_id:

Min: 1

Min + 1: 2

Normal: 50

Max-1: 99

Max: 100

Case	Account	pin	Emp_id	Expected output
1	10	00000	1	Invalid
2	10	00001	1	Invalid
3	10	00002	1	Invalid
4	10	00003	1	Invalid
5	10	00005	1	Invalid
6	10	00006	1	Invalid
7	10	00007	1	Invalid
8	10	00008	1	Invalid
9	10	00009	1	Invalid
10	10	00010	1	Invalid
11	100	00011	5	Valid
12	100	00012	5	Valid
13	100	00013	5	Valid
14	100	00014	5	Valid

15	100	00015	5	Valid
16	100	00016	5	Valid
17	100	00017	5	Valid
18	100	00018	5	Valid
19	100	00019	5	Valid
20	100	00020	5	Valid
21	1000	00021	10	Valid
22	1000	00022	10	Valid
23	1000	00023	10	Valid
24	1000	00024	10	Valid
25	1000	00025	10	Valid
26	1000	00026	10	Valid
27	1000	00027	10	Valid
28	1000	00028	10	Valid
29	1000	00029	10	Valid
30	1000	00030	10	Valid
31	2000	00031	15	Valid
32	2000	00032	15	Valid
33	2000	12300	15	Valid
34	2000	12311	15	Valid
35	2000	12323	15	Valid
36	2000	12367	15	Valid
37	2000	12343	15	Valid
38	2000	12327	15	Valid
39	2000	34560	15	Valid
40	2000	34561	15	Valid
41	3000	34562	20	Valid

42	3000	34563	20	Valid
43	3000	34564	20	Valid
44	3000	34565	20	Valid
45	3000	34566	20	Valid
46	3000	34567	20	Valid
47	3000	34568	20	Valid
48	3000	34569	20	Valid
49	3000	34510	20	Valid
50	3000	67800	20	Valid
51	3000	67890	25	Valid
52	3000	67891	25	Valid
53	3000	67892	25	Valid
54	3000	67893	25	Valid
55	3000	67894	25	Valid
56	3000	67895	25	Valid
57	3000	67896	25	Valid
58	3000	67897	25	Valid
59	3000	67897	25	Valid
60	3000	99999	25	Valid