**ASSIGNMENT**

**1) SQL**

**a)** SELECT TOP 1 EMP.EMPNAME,SAL.SALARY

FROM

( SELECT DISTINCT TOP N SAL.SALARY,EMP.EMPNAME

FROM SALARY SAL,EMPLOYEE EMP

WHERE SAL.EMPID=EMP.EMPID

ORDER BY SAL.SALARY DESC)

ORDER BY SAL.SALARY

**b)** UPDATE SALARY SAL

SET SAL.SALARY=5000

WHERE (SELECT @TEMP=DATEDIFF(YY,DATE\_OF\_BIRTH,GETDATE())

FROM EMPLOYEE EMP,SALARY SAL

WHERE EMP.EMPID=SAL.EMPID

AND

@TEMP>30)

**2) Assumptions:**

a) Promo code application is case sensitive

b) It can only be applied for Mobile prepaid/postpaid recharge but is visible with all the other coupon codes for other options as well such as Movie ticket booking, Electricity payment etc. If in any other field this coupon is used then an error message is displayed stating that “COUPON APPLICABLE ON MOBILE RECHARGE ABOVE RS.1000 ONLY”.

c) Have assumed the error message text mentioned in the test scenarios.

d) The application is both web based as well as mobile based and the promo code field is applicable on both website and mobile app as well.

**Test Scenarios:**

1. Verify that for a new logged in user in the application, when user tries to make Mobile recharge the Promo code “NEW30” is visible in the Promo code list when clicked on “Apply promo code” option.

2. Verify that in the displayed Promo codes for the new user, NEW30 code is also displayed along with the text message written below it about its usage.

3. Verify that with the promo code “NEW30” there is a “Apply” button displayed in the list

4. Verify the promo code “NEW30” is displayed in the Promo code list of other fields as well like Mobile recharge,Electricity bill payment, DTH recharge along with the information text below it and APPLY button as well.

5. Verify if a new user is logged in and he makes recharge of amount less than Rs.1000 then an error message is displayed stating that “Coupon applicable only on recharge above Rs.1000”.

6. Verify if an existing user i.e. already registered user who has used the promo code “NEW30” tries to use it again for a mobile recharge of more than Rs.1000 then an error message is displayed that “Promo code valid for new users only”.

7. Verify if an existing user i.e. already registered user who has used the promo code “NEW30” tries to use it again for a mobile recharge of less than Rs.1000 then an error message is displayed that “Promo code valid for new users only”.

8. Verify if an existing user i.e. already registered user who has not used the promo code “NEW30” tries to use it for a mobile recharge of less than Rs.1000 error is displayed as “Coupon applicable only on recharge above Rs.1000”.

9. Verify if an existing user i.e. already registered user who has not used the promo code “NEW30” tries to use it for a mobile recharge of more than Rs.1000 no error is displayed and user is able to use the promo code giving 30% discount on the total billed amount upto Rs.300.

10. Verify if a new user has applied the Promo code “NEW30” for the recharge done for more than Rs.1000 then user is able to use the promo code giving 30% discount on the total billed amount upto Rs.300.

11. Verify that if the user enters Promo code as “New30” or “new30” i.e. if considered as case insensitive then an error message is displayed that “Please enter valid coupon code”.

12. Verify that the user is able to copy the promo code “NEW30”

13. Verify that in the “To apply Promo code” field of the application, the user is able to type as well as paste the promo code “NEW30”.

14. Verify when clicked on APPLY button displayed near the Promo code the user Promo code gets applied displaying the discount amount the user is receiving on the total billed amount.

15. Verify that the new user when applies promo code “NEW30” on the billed mobile recharge amount more that Rs.1000 then the discounted amount is displayed to the user and that amount id deducted from the total billed amount hence displaying the total payable amount to the user.

16. Verify if a new user has used the “NEW30” promo code,made the payment but due to some error the payment becomes unsuccessful then for the user at later point of time user should be able to use the same coupon code “NEW30” for the new transaction as the previous transaction was unsuccessful.

17. Verify that the character limit for the promo code “NEW30” is 7.

18. Verify that if an existing user who has used “NEW30” code in his transaction has logged out of the device and again logs in through some other device then and tries to again use the same promo code then he is not allowed to do so and valid error stating it is applicable only for new users is displayed.

19. Verify that if a new user who has not used “NEW30” code in his transaction has logged out of the device and again logs in through some other device then and tries to again use the same promo code then he is allowed to do so and no error is displayed.

20. Verify for a new user having successful transaction with the Promo code “NEW30” for the mobile recharge more than Rs.1000, the user is not able to use the same promo code again for another mobile recharge more than Rs.1000.

21. Verify that the new user is able to use the promo code on both website as well as mobile app.

22. Verify that existing user is unable to use the promo code on both website as well as mobile app.

23. Verify that if the billed amount is a large number (EG. 4000) then also after applying the promo code “NEW30” on the total billed amount which gives 30% discount, the discount amount received is Rs.300 which is the max cap limit.

24. Verify that the discounted amount calculated from the total billed amount should be in integer format and not in decimal format i.e if the discounted value comes out to be in decimal format then an automatic round off is done and the integer value is considered.

25. Verify the UI alignment, font, colour of the promo code “NEW30” displayed along with the text displayed below and the APPLY button in the Promo code list for the new user.

**3) NOTE : Since I have experience working with C# language I have solved the given problem in C# and not in Java.**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace PrimeNumber {

class Program {

static void Main(string[] args) {

bool IsPrime = true;

Console.WriteLine("Prime numbers :");

for (int i = 2; i <= 100; i++) {

for (int j = 2; j < 100; j++) {

if (i != j && i % j == 0) {

IsPrime = false;

break;

}

}

if (IsPrime) {

Console.Write("\t" + i);

}

IsPrime = true;

}

Console.ReadKey();

}

}

}

**Test Cases to test the program:**

1. Verify that the output result displayed for the above program is prime numbers between 1 to 100 on the console.
2. Verify that numbers displayed in output are prime numbers by checking that
3. It is a positive number
4. It is divisible by 1 and the number itself
5. Verify if the number displayed is divisible by any number other than itself then it is not a prime number.
6. Verify that the numbers printed by the above code are displayed in ascending order.
7. Verify that if the number(for instance x) is considered then upto x-1 values are considered in dividing the number i.e. (x/x-1) and if the remainder is 0 then it is not a prime number and if not equal to 0 then it is a prime number.

**4) I haven’t had the opportunity to work on API automation. I have been working on Web Automation and Manually testing the API using Postman. Hence, I haven’t solved the 4th Question of the Assignment.**