



Lab test for Software Engineer.

Start Date: 18th-Sep-2020

Submission Date: 30th-Sep-2020

What we will consider: OOP, Model Design, Association Relationship, Code Efficiency, Planning.

Technology Should be use: C#, SQL, MVC or greater, ng/ react will privilege. You can use any front-end framework.

Don't share this Question with others.

Story: We have 11 types of designation (A-K) and each designation have own role for business purpose, such as salary, commission, bonus etc. based on Sales. So, you have to create Designation and different types of Bonus. Everything should be calculated from current month only.

1st- Sep-2020 to 30th-Sep-2020. You have to find out the right path before development.

- 1- **First Progress Report submission date: 22nd sep-2020 5.00 PM**
- 2- **Second Progress Report submission date: 26th sep-2020 5.00 PM**
- 3- **Final Submission date 30th -Sep-2020**

Some Code you have to remember:

- 1- **SIDC** (Salesman Identification Code) UNIQUE
- 2- **AMC** (Alpha Member Code) UNIQUE
- 3- **BMC** (Beta Member Code) UNIQUE

We have four types of commission system:

- 1- SALES Commission from Personal and Associate Sales.
- 2- Ordinal (CSS) Commission from total Sales of the company of current month against **AMC + BMC**.
- 3- 3.1 Inbound commission (Total Sales against this **AMC**)
3.2 Outbound commission (Total Sales against this **BMC**)
- 4- GB Commission for each sale for each **SIDC** Code, if any position is not eligible to commission, then this commission (%) will be shifted to Upper Link. This is not mandatory to maintain to Designation, this is mandatory for SINGLE LINK up to 10 (Person) Code for.

****Note:** Each **SIDC** must be sale min 4,000/= on to get any kinds of commission.

Conditions of Commissions by Amount:

Sl.	Commission Type	From Amount	To Amount	Percentage (%)
1	SALES Commission	1000	< 10,000	6 %
2	" "	10,000	< 30,000	7.5 %
3	" "	30,000	< 60,000	9 %
4	" "	60,000	1,00,000	11 %
1	Inbound Commission (Alpha)	5000	< 50,000	5 %
2	" "	50,000	Up	7 %
1	Outbound Commission (Beta)	5000	Up	5 %

Designation and Qualify:

Sl.	Designation	Min Associates Needed
1	A	--
2	B	2 X A
3	C	3 X B
4	D	1 X C + 2 X B
5	E	3 X C + 3 X B
6	F	2 X E + 1 X C + 2 X B
7	G	4 X E
8	H	6 X E
9	I	6 X H
10	J	3 X I
11	K	2 X J

Percentage of SALES Commission:

Total SALES Commission: 26%			
Sl.	Designation	Percentage (%)	SALES Commission (%)
01	A	6 % to 11 %	6 %
02	B	12.5 %	12.5 - 6 = 6.5 %
03	C	15 %	15 - 12.5 = 2.5 %
04	D	17.5 %	17.5 - 15 = 2.5 %
05	E	20%	20 - 17.5 = 2.5 %
06	F	21 %	21 - 20 = 1.0 %
07	G	22 %	22 - 21 = 1.0 %
08	H	23 %	23 - 22 = 1.0 %
09	I	24 %	24 - 23 = 1.0 %
10	J	25 %	25 - 24 = 1.0 %
11	K	26 %	26 - 25 = 1.0 %
Total			26 %

Percentage of Ordinal Commission:

Ordinal (CSS) Commission: 16%		
Sl.	Designation (% divide to total of particular designation)	Percentage (%)
1	K [min Associates qualify]	1.0 %
2	J [min Associates qualify]	0.5 %
3	I [min Associates qualify]	1.0 %
4	H [min Associates qualify]	2.5 %
5	G [min Associates qualify]	1.5 %
6	F [min Associates qualify]	1.5 %
7	E [min requirements (3 X C^ + 3 X B + 4000+ etc. = 70,000)]	6.0 %
8	D [min requirements (C^ + 4,000 + 6000)]	0.5 %
9	C [min requirements (4,000 + 16,000)]	1.5 %
Total		16 %



Percentage of GB Commission:

GB Commission: 7.5%		
Sl.	Designation	Percentage (%)
01	Any Designation	2%
02	Any Designation	1.5%
03	Any Designation	1%
04	Any Designation	0.5%
05	Any Designation	0.5%
06	Any Designation	0.5%
07	Any Designation	0.5%
08	Any Designation	0.5%
09	Any Designation	0.25%
10	Any Designation	0.25%
Total:		7.5 %

First Emp Account is for Company, And Reference Code (SIDC) direct insert into Database E-001, then for the next account, the Reference Code is Required.

After whole month item sale, a Salesman submit his/ her amount to get commission or bonus. So, you have to find out Salesman's monthly commission based on types and eligibility.

Suppose Mr. Kamal, his designation is "A" his SIDC is E-001, he sold total 9,000/= (Products) in Sep-2020, He is Also an ALPHA member, and his AMC is AL-001, now what he will get?

Mr. Kamal Ahmed, Commission of Sep-2020			
1	SALES Commission	$(9000*6)/100$	540
2	Ordinal Commission	not eligible	0.00
3	Inbound Commission	$(9000*5)/100$	450
4	Outbound Commission	not eligible	0.00
Total:			990





What you have to submit:

- 1- Result Document for all UI and all output screen shots
- 2- Make a search page: we will search by Code (optional), From Date and To Date
- 3- Commission Output Search Result look like

Search Result From 1 st -Sep-2020 to 30 th Sep-2020									
Sl.	Code	Desig.	Name	Sales Commission	Ordinal Commission	Inbound Commission	Outbound Commission	GB Commission	Total
1	E-001	A	Kamal	540	0.00	0.00	0.00	0.00	540
2	AL-001	Alpha	Kamal	0.00	0.00	450	0.00	0.00	450
Total:				540	0.00	450.00	0.00	0.00	990

- 4- Make an Associate Search page
User will provide SIDC and press search button, and then output look like

Code: E-002
Name: Jamal
Designation: D
Cell No: 00...
Email:

Associates (Sample):

Sl.	Designation	Code List	Total Count
1	A	--	0
2	B	E-003 (link button), E-004	2
11	K	E-005	1

When click any code, then open new Associate Search page with new tab, and show same as upper table data of that Code.

- 5- Make a Report only for company Commission, that no one got it.
- 6- Manage your code in Git and Share with us when submit.

** If you have any Questions, then please note down and send us email, we will make another session for you to make you understand.

Thank you very much