ASA SDL EXCEL ASSIGNMENT

This PDF contains a scenario for you to apply your newly learnt Excel Skills. Following the instructions, **complete the tasks on the given Google Sheet.**

To guide you through this assignment, there are two main things you need to know:

- The underlined questions are hints to help you with this assignment.
- Text that are **bolded are steps you are expected to do** in order to learn and derive the solutions

DISCLAIMER: The Google Sheet contains information that is entirely fictional and randomly generated. The document was made to simulate data recruits may work with as an Administrative Support Assistant (ASA). Any information that coincides with that of actual persons is purely coincidental.

Background

It is halfway through the current batch of recruits. You, PTE Tan Ah Kau, has been tasked by your Company Sergeant Major (CSM) to track how many days of leave each of the recruits has taken throughout the batch. With the Google Sheet, come up with the relevant data to present to your CSM.

- ❖ Masking NRICs
    - ➢ Under the advisory guidelines for the Personal Data Protection Act, full NRICs may not be disclosed unless absolutely necessary.
    - ➢ Using the relevant excel text functions (LEFT, RIGHT, MID etc.), **fill in the 'Masked NRIC' column in the 'Nominal Roll' sheet**. The format of a masked NRIC should be the first character followed by XXXX and the last 4 characters of the NRIC.

4D	Rank	Name	Personnel No	NRIC	Masked NRIC
C1101	REC	Jin Tao	10720762	D9116189C	DXXXX189C
C1102	REC	Liao Jiang	10181335	D9713398J	DXXXX398J
C1103	REC	Cai Chen	10164639	D9963242I	DXXXX242I
C1104	REC	Zhen Gang	10980976	D9820440G	DXXXX440G
C1105	REC	Fawzi el-Kaiser	10432365	D9853618C	DXXXX618C
C1106	REC	Abdul Wadood al-El-Sayed	10530789	D9947973F	DXXXX973F

Example of Masked NRICs

Q1) Which of the following functions should you use in order to mask the NRICs?

1. =LEFT(cell, 4) & "XXXX" & RIGHT(cell, 1)
2. ="D" & "XXXX" & RIGHT(cell, 1)
3. =LEFT(cell, 1) & "XXXX" & RIGHT(cell, 4)

- ❖ Filling in the blanks
    - ➢ Using lookup functions(VLOOKUP, INDEX MATCH etc.), **fill in the empty 'Name' and 'Masked NRIC' columns in the 'Leave List' sheet using data from the 'Nominal Roll' sheet.**

- ❖ Leave Type Selection
  - ➢ Data Validation is a good tool in excel to stop and check for invalid user input.
  - ➢ Using Data Validation, **create a drop-down list for each entry under the column 'Leave/MC Type' in the 'Leave List' sheet.** The range of allowed values for the dropdown list has been provided under the **'Leave Types'** sheet.

4D	Name	Masked NRIC	Leave/MC Type	Start Date	End Date
C1102	Liao Jiang	DXXXX398J	MC ▾	21/5/2020	21/5/2020
C1107	Khaleefa al-Shahid	DXXXX840J	MA	4/6/2020	5/6/2020
			MC		
C1107	Khaleefa al-Shahid	DXXXX840J	ATTC	8/6/2020	8/6/2020
C1108	He Yu	DXXXX602Z	Hospitalization	20/5/2020	21/5/2020
C1109	Mo Yi	DXXXX113G	Off	22/5/2020	22/5/2020
			MA		
C1110	Geng Guiying	DXXXX577A	ATTC	21/5/2020	21/5/2020
C1111	Qiu Chang	AXXXX843Z	MA	8/5/2020	8/5/2020

Example of drop-down list for 'Leave/MC Type'

MC Tracking

- ❖ Counting the length of Leave
  - ➢ If the 'Leave/MC Type' is 'MA', the 'No. of Leave Days' is counted as 0.5.
  - ➢ For all other 'Leave/MC Type', the 'No. of Leave Days' should be the number of days between the 'Start Date' and 'End Date', inclusive of the start and end day. (E.g. an MC from 4/6/2020 to 6/6/2020 should count as 3 days of leave)
  - ➢ **Fill in the 'No. of Leave Days' column in the 'Leave List' sheet with the leave duration in days.** *(You do not have to worry about weekends or public holidays as there are no entries that fall within those dates).*

4D	Name	Masked NRIC	Leave/MC Type	Start Date	End Date	No. Of Leave Days
C1102	Liao Jiang	DXXXX398J	MC	21/5/2020	21/5/2020	1
C1107	Khaleefa al-Shahid	DXXXX840J	MC	4/6/2020	5/6/2020	2
C1107	Khaleefa al-Shahid	DXXXX840J	MA	8/6/2020	8/6/2020	0.5
C1108	He Yu	DXXXX602Z	MC	20/5/2020	21/5/2020	2
C1109	Mo Yi	DXXXX113G	MA	22/5/2020	22/5/2020	0.5
C1110	Geng Guiying	DXXXX577A	ATTC	21/5/2020	21/5/2020	1
C1111	Qiu Chang	AXXXX843Z	MA	8/5/2020	8/5/2020	0.5
C1111	Qiu Chang	AXXXX843Z	MA	19/6/2020	19/6/2020	0.5
C1201	Talon Oz	DXXXX893B	MA	12/6/2020	12/6/2020	0.5
C1201	Talon Oz	DXXXX893B	MC	16/6/2020	16/6/2020	1
C1203	Ward Ralf	DXXXX427I	ATTC	5/5/2020	6/5/2020	2

Example of No. of Leave Days Column filled

Q2) What formula should you use under the 'No. of Leave Days' column in order to accurately calculate the No. Of Leave Days based on the rules listed above?

1. = IF([@[Leave/MC Type]]="MA", 0.5, [@[Start Date]]-[@[End Date]])
2. = IF([@[Leave/MC Type]]="MA", 0.5, [@[End Date]]-[@[Start Date]])
3. = IF([@[Leave/MC Type]]="MA", 0.5, [@[End Date]]-[@[Start Date]]+1)

- ❖ Leave Totals by Personnel
  - ➢ Under the 'Leave Totals by Personnel' sheet, **consolidate the total days of leave for each personnel under the 'Leave Day count' column, based on their leave days in the 'Leave List' sheet.**

- ❖ OOC (Out-of-course) Highlighting

➢ Under the guidelines for your unit, those with a total leave count of 5 or more days should be reviewed for OOC.
➢ Under 'Leave Totals By Personnel' sheet, **highlight the 'Leave Day Count' column of those who have 5 or more days of leave in red using conditional formatting.**

4D	Name	Leave Day Count
C1101	Jin Tao	0
C1102	Liao Jiang	1
C1103	Cai Chen	0
C1104	Zhen Gang	0
C1105	Fawzi el-Kaiser	0
C1106	Abdul Wadood al-El-Sayed	0
C1107	Khaleefa al-Shahid	2.5
C1108	He Yu	2
C1109	Mo Yi	0.5
C1110	Geng Guiying	1
C1111	Qiu Chang	1
C1112	Kang Song	0
C1201	Talon Oz	1.5
C1202	Vic Colin	0
C1203	Ward Ralf	2
C1204	Dell Jonathon	0
C1205	Crispian Dan	5
C1206	Darlene Edwards	0

Example of Personnel to be reviewed for OOC highlighted in red

Q3) How many personnel should be reviewed for OOC?

❖ Present Strength for each Day
➢ Under the 'Present Strength' sheet**, count the Total Strength of all the recruits in the current batch using the data from 'Nominal Roll' sheet and fill it in cell F1.**
➢ **Calculate the 'No. of Personnel on Leave/MC' for all the days listed using data from the 'Leave List' sheet.**
➢ Personnel on MA are also taken to be Leave/MC for that particular day. Weekend and public holiday dates have been removed from the list.
➢ **Fill in the 'Present Strength' column** by subtracting 'No. of Personnel on Leave/MC Type' from 'Total Strength' for all the days listed.
➢ **Calculate the Average Present Strength rounded up to 0 decimal places and fill it in cell F2.**

Date	No. of Personnel on Leave/MC	Present Strength
5/5/2020	4	90
6/5/2020	5	89
8/5/2020	3	91
11/5/2020	0	94
12/5/2020	4	90
13/5/2020	3	91

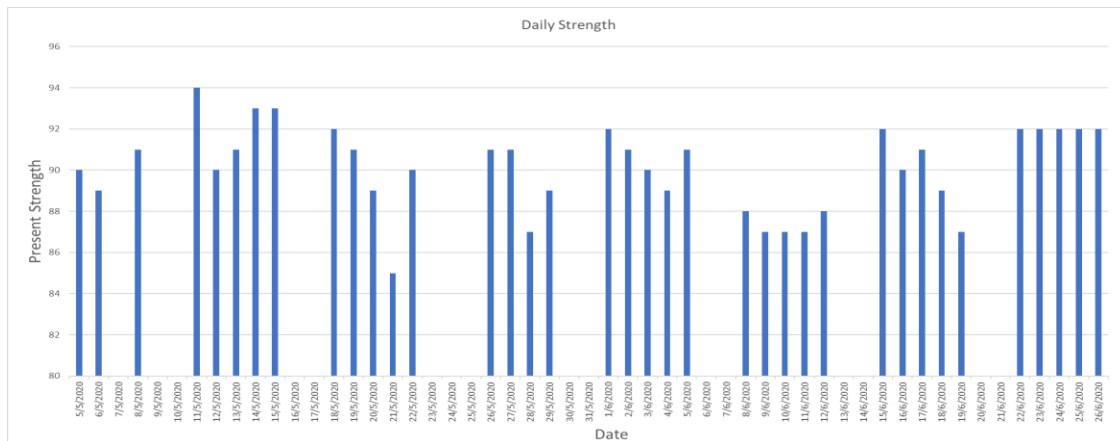*Example of Completed Present Strength*

Q4) Using 5/5/2020 (Cell A4) as an example, what formula can we use to account for the total number of personnel on any Leave/MC Type for that day?

1. =COUNTIFS(Table6[Start Date],"<="&A4,Table6[End Date],">="&A4)
2. =COUNTIFS(Table6[Start Date],">="&A4,Table6[End Date],"<="&A4)
3. =COUNTIFS(Table6[Start Date],"="&A4,Table6[End Date],"="&A4)

Q5) What is the average Present Strength rounded up to the nearest whole number? (Type in your answer)

❖ Visualizing Present Strength for each Day
  ➢ **Create a bar chart out of table in the 'Present Strength' sheet showing the Date against Present Strength for that date.**
  ➢ **Add an X-axis label 'Date' and a Y-axis label 'Present Strength'. The chart title should be 'Daily Strength'.**

Example of Bar Chart for daily Present Strength